Strengthening governance, from local to global

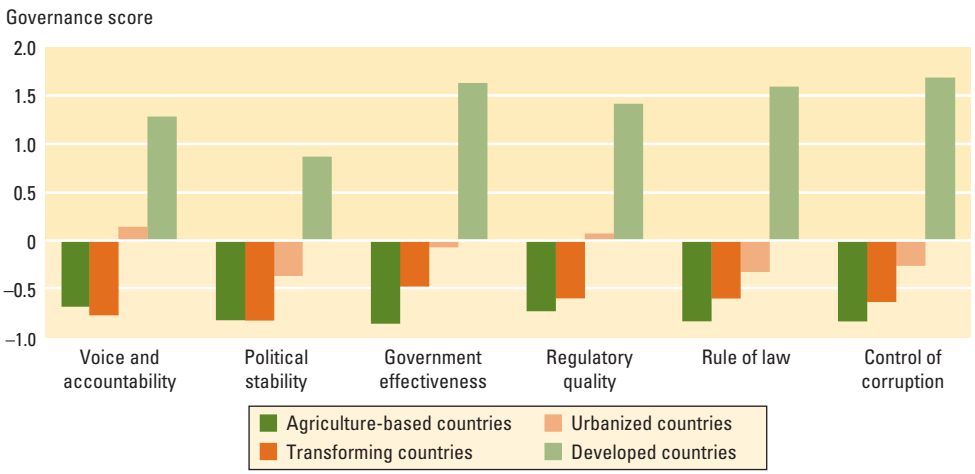
chapter 11

Agriculture remains one of the most promising instruments for reducing world poverty, as shown throughout this *Report*. Chapter 10 identified the main elements of agriculture-for-development agendas. This chapter discusses the crucial role of governance in supporting those agendas: What are the roles of the state, the private sector, and civil society in promoting agriculture for development? How can agricultural policy making and policy implementation be improved? What can decentralization and community-driven development (CDD) add? How can donors make development assistance to agriculture more effective? And what can the international community do to realize the global agriculture-for-development agenda?

Policy instruments outlined in chapter 10 that enjoy strong political support, such as providing infrastructure, services, and social safety nets, are demanding of administrative capacity and fiscal resources. Irrigation schemes that never worked and agricultural extension systems that have broken down are common examples of this problem. Policy instruments that do not pose these problems, such as removing subsidies that mainly benefit larger farmers, are politically difficult to pursue (chapter 4). This dilemma is aggravated by the governance challenges in developing countries: political and economic instability, limited voice and accountability, low state capacity, corruption, and poor rule of law (figure 11.1).

Governance problems tend to be more severe in agriculture-based countries, where the state is especially important for addressing market failures. These countries are often afflicted by conflicts and the postconflict challenges of rebuilding agriculture. Many countries face specific governance problems in rural areas, such as deeply entrenched political and social

Figure 11.1 Agriculture-based and transforming countries get low scores for governance



Source: Kaufmann, Kraay, and Mastruzzi (2006).
Note: The governance indicators aggregate the views on the quality of governance provided by a large number of enterprise, citizen, and expert survey respondents in developed and developing countries.

structures, that are often linked to unequal access to land, which perpetuates severe inequalities and can lead to violent local conflicts (box 11.1).[1] As long as such fundamental conflicts—often threatening people's lives—remain unresolved, using agriculture for development remains a distant goal.

Governance is essential to realize an agriculture-for-development agenda. In fact, governance problems are a major reason why many recommendations in the 1982 *World Development Report* on agriculture could not be implemented. Today, the prospects for overcoming governance problems are more promising than they were in 1982. The world has turned its attention to governance. Ongoing processes of democratization, civil society participation, the rising weight of agribusiness, public sector management reforms, corruption control, and decentralization hold great potential for improving agricultural performance. The percentage of countries experiencing political instability and conflict has declined since the early 1990s.[2] Macroeconomic stability has improved considerably, especially in Africa where it was most lacking (chapter 1). Growing regional integration and envisaged reforms of global institutions also hold promise for the agriculture-for-development agenda.

There is evidence that the political economy has been changing in favor of using agriculture for development. Both civil society and the private sector are stronger than they were in 1982. Democratization and the rise of participatory policy making have increased the possibilities for smallholders and the rural poor to raise their political voice. New politically powerful private actors have entered agricultural value chains, and they have an economic interest in a dynamic and prosperous agricultural sector.

Yet success cannot be taken for granted. Agriculture may benefit from general improvements in governance, but its complexity and diversity make special efforts necessary. Increasing voice and accountability in rural areas remains a challenge, even in democratic systems. Rural women face particular challenges to make their voices heard. Selecting the right combination of policy instruments is not easy, even if greater political accountability has been created. Better organized agricultural interest groups may demand inefficient policy instruments, such as price support. Public sector reforms and decentralization that are most effective in promoting the agriculture-for-development agenda are highly specific to countries and contexts. In addition, reforms of global governance need to take agriculture's special problems into account. This chapter discusses what can be done to strengthen governance in light of these challenges.

Changing roles: the state, the private sector, and civil society

The nation state remains responsible for creating an enabling environment for the agriculture-for-development agenda, because only the state can establish the fundamental conditions for the private sector and civil society to thrive: macroeconomic stability, political stability, security, and the rule of

BOX 11.1 *Conflicts over land displace millions in Colombia*

Since the 19th century, Colombia has experienced a long-standing internal conflict between peasants and landowners based on unequal access to land.

Particular segments of the Colombian peasantry were initially championed by two guerrilla forces, the FARC (*Fuerzas Armadas Revolucionarias de Colombia*) and the ELN (*Ejército de Liberación Nacional*) over issues of land. The FARC was established in 1966 in response to a government-sponsored attack on a peasant campaign for land reform. The ELN started as an ideological movement motivated by the Cuban revolution to fight for the poor and landless. In retaliation to the peasant guerilla forces and representing landowners, the AUC (*Autodefensas Unidas de Colombia*), a paramilitary umbrella organization, was formed in the 1980s and began conducting localized operations against guerrillas in the 1990s.

Conflict between these groups has acquired a life of its own. It has been aggravated by huge amounts of money channeled into violence, rent capture through natural resources (oil), and the drug trade, making parts of the country ungovernable. The ongoing conflict has led to a humanitarian disaster of huge proportions. World Bank estimates for 1999/2000 put the number of displaced Colombians resulting from the conflict at 1.8 million, the highest in the world in absolute terms. Massive displacements undermine the government's attempts to improve opportunities and address inequality—the root of the conflict. Such conflict and displacement is the source of agrarian counterreform—land abandonment by internally displaced people (IDPs), which recent estimates put at 4 million hectares in Colombia—almost three times more than what has been redistributed over three decades of government-sponsored land reform. As the land abandoned by IDPs is rarely put to effective use, it is associated with productivity losses that further weaken rural economic conditions and agricultural competitiveness, effectively trapping these regions in a vicious cycle of violence and low economic performance.

Sources: Deininger, Ibanez, and Querubin (2007); World Bank (2002b).

law. Although these governance dimensions are not specific to agriculture, few of the agriculture-specific reforms discussed here can be implemented if they are not in place.

Overcoming market failures while avoiding government failures

Although agriculture is a largely private activity, market failures are pervasive because of monopoly power, externalities in natural resources management, scale economies in supply chains, nonexcludability in research and development (R&D), and asymmetries of information in market transactions. Adding to the failures are heterogeneity, isolation, spatial dispersion, the lack of assets to serve as collateral, and vulnerability to climatic shocks that lead to high transaction costs and risks. Governments try to overcome such market failures through regulation, institutional development, investments in public goods, and transfers.

Most governments have also responded to market failure by supplying essentially private services in agriculture, distributing inputs, providing credit and marketing products, often through parastatals. Although some countries have had remarkable success with this—enabling them to launch the green revolution—the results have often been negative and, in some cases, disastrous. The results are poor because public sector interventions are often ill informed, poorly implemented, and subject to rent-seeking and corruption, leading to government failures.

In view of such problems, strong state interventions were reduced by structural adjustment in the 1980s and 1990s, which emphasized the primary role of the market. The emphasis on "getting prices right" and improving the macroeconomic environment had important positive effects for agriculture, such as reducing its tax burden (chapter 4). But it left many market failures unresolved, creating second-generation problems (chapter 5), especially where a weak private sector could not fill the gap.

There is now general agreement that the state must invest in core public goods, such as agricultural R&D, rural roads, property rights, and the enforcement of rules and contracts, even in highly developed economies. Beyond providing these core public goods, the state has to facilitate, coordinate, and regulate, although the degree of state activism in these roles is debated. The agriculture-for-development agenda also assigns a strong role to public policy to promote poverty reduction and equity, including gender equity, by building productive assets and providing safety nets.

How can government failures be overcome in implementing this agenda, especially in agriculture-based countries where the need to address market failures is the greatest? The agricultural bureaucracies remaining after structural adjustment are particularly weak, so governance reforms have to strengthen the capacity of the agricultural administration. But ultimately the level of state involvement in agriculture is the outcome of political processes that depend on political priorities and ideological values.

New state roles—coordinate, facilitate, and regulate

The need for coordination by the public sector has increased as the food supply chain has grown. Coordination failures occur when farmers or processors are isolated or disconnected, or when complementary investments are not made by others at different stages in the supply chain. They may have increased after the withdrawal of parastatals in Sub-Saharan Africa, where poor infrastructure, high risks, and high transaction costs discourage private investment. In such situations, coordinated public, private, and civil society actions can reduce transaction costs and reduce risks for private investment in critical services for smallholder agriculture (chapters 5 and 6).

Implementation of the agriculture-for-development agenda also requires coordination across ministries. This agenda is broadly cross-sectoral, embracing not only issues of agricultural production, but also food safety, biosafety, animal health, human health and nutrition, physical infrastructure, environmental services, trade and commerce, natural disaster management, gender equity, and safety nets. These issues fall under the jurisdiction of different ministries, and even crop

production, irrigation, livestock, fisheries, and food are often dealt with by specialized ministries. These ministries have to engage a broad range of stakeholders, including the private sector, civil society, and donors in the formulation of integrated strategies. Consequently, policy makers and bureaucracies need new skills as facilitators and coordinators.

Regulation, too, has become more important and complex. States are asked to regulate biosafety, food safety, grades and standards, intellectual property protection, agricultural input quality, groundwater extraction, and environmental protection. The privatization of agricultural markets requires appropriate regulatory frameworks to maintain competitiveness (chapter 5). In addition, dozens of international agreements oblige countries to put many regulations in place, even when doing so is costly. Regulation is not, however, just a function of the public sector. The private sector can—and often does—engage in self-regulation and adopt corporate social responsibility practices that support the agriculture-for-development agenda.

Civil society—another way to strengthen governance

The third sector comprises producer organizations and other civil society organizations and can help to overcome market failures in agriculture while avoiding government failures. Collective action through producer organizations can facilitate economies of scale—for example, in input supply, extension, marketing, and managing common property resources, such as watersheds and irrigation systems. And the unique competencies of many nongovernmental organizations (NGOs) can be harnessed to deliver services, especially at the local government and community levels. NGOs can engage in standard setting, such as Fair Trade labeling. But collective action can also fail by excluding disadvantaged groups, with the benefits captured only by local elites.

A vibrant civil society strengthens public sector governance by giving political voice to smallholders, rural women, and agricultural laborers (chapter 1). Civil society organizations can monitor agricultural policy making, budgeting, and policy implementation. Civil society can hold policy makers and the public administration accountable and create incentives for change. To do all this, however, the freedom of association, the right to information, and the freedom of the press are crucial.

Ultimately, better governance is the outcome of a long-term political and social process, conditioned by a country's and region's history, embedded in its institutions, and driven by its social movements. It is the citizens of a country and their leaders who reform governance. Donors can only support those reforms.

Agricultural policy processes

Building coalitions

Political commitment to the agriculture-for-development agenda requires the formation of coalitions of stakeholders that support this agenda. At the national level, ministries of agriculture can help form such coalitions, but they need to overcome major challenges. One challenge is coordinating across different ministries. Because sectoral interests often dominate broader development objectives, creating high-level interministerial mechanisms can help, as in Uganda (box 11.2). Another challenge is managing participatory processes that involve a broad range of stakeholders, including donors. A related challenge is avoiding capture by large-scale farmers, who usually have more influence on ministries of agriculture than smallholders, and ensuring voice for disadvantaged groups, including women, tribal groups, and youth.

Although ministries of agriculture can coordinate stakeholders, producer organizations are key players in pro-agriculture coalitions (box 11.2). They are more effective if they are joined by parliamentarians, NGOs, and academics. Agribusiness can be an important partner in such coalitions, especially in transforming and urbanized countries (see focus D). In India, the agribusiness sector is one of the driving forces advocating more public spending on agriculture, knowing that it will benefit from accelerated agricultural growth. The private sector can use its expertise and

BOX 11.2 *Translating vision into practice: a former minister's view of Uganda's Plan for Modernizing Agriculture*

The Plan for Modernizing Agriculture is Uganda's strategy to reduce poverty by increasing rural household incomes, food security, and employment, and by transforming subsistence agriculture to commercial agriculture. A National Steering Committee of key stakeholders, chaired by the Ministry of Finance, coordinates the Plan. It operates under 13 government ministries and agencies as well as local governments, the private sector, civil society, and development partners.

The plan is based on the vision of using agriculture for development and progress has been steady, but slower than expected. Institutional change is slow, always challenging, not easily observed, and underappreciated, making the deepening of reforms difficult. Changes in political leadership, inconsistent policies, and conflicting interests of ministries present additional challenges. Indeed, operating in a cross-sectoral environment requires changes in mindsets and capacities. The Poverty Reduction Sector Support program made the budget processes participatory, but each ministry is still constrained by the expenditure ceilings imposed by the Ministry of Finance, making it difficult to fund the planned services.

The Plan's multisectoral framework is not well understood, resulting in uneven integration across different line ministries. Departments are more used to projects than to a program approach requiring cross-sectoral budgeting and implementation. Accustomed to centralized practices, government officials are now devolving responsibilities, even though decentralizing finances remains a challenge.

Implementation calls for patience, consistency, and buy-in from key stakeholders to ensure appropriate funding (members of parliament make final budgetary decisions). Despite slow progress in a number of areas, the Plan, overall, is emerging as a success.

Source: Kisamba Mugerwa, personal communication, 2007.

political weight to promote reforms, for example, through public-private dialogues. The Working Group on Agriculture and Agribusiness in Cambodia's Government-Private Sector Forum is an example. The private sector can also contribute to trade policy reforms, as in the case of the Philippines Task Force on the World Trade Organization (WTO) Agreement on Agriculture Renegotations.[3]

The challenge in building pro-agricultural coalitions, however, is to avoid creating political pressure for "misinvestment" or to resist reforms (chapter 4). Creating political coalitions that support the rights of agricultural laborers is a challenge, too. Temporary workers and female employees in the Chilean fruit sector have fewer labor rights than those enjoyed by employees in the rest of the economy. A small number of corporations control the bulk of Chilean fruit exports, and they have been able to oppose reforms of labor rights.[4]

Strengthening participation and deliberation

In line with a growing interest in deliberative democracy, formulation of agricultural development policies increasingly involves stakeholders and the broader public. Participation can create political support in favor of the agriculture-for-development agenda. Such participation incurs transaction costs, of course, but it identifies policies and programs better tailored to country-specific needs. Smallholder organizations can strengthen participation. Senegal shows how producer organizations, including those representing rural women, can form national umbrella organizations to increase their voice in national policy making and affect policy outcomes (box 11.3).

Participation typically involves stakeholder workshops. In India, "scenario planning" engaged stakeholders in discussions about the reform of the agricultural research system, provoking scientists and others to think outside their everyday domains and technical competence.[5] A much broader range of approaches can strengthen the voice of stakeholders and the rural poor. In "citizen juries," lay people deliberate contested issues. And the NGO Global Voices uses information and communication technology (ICT) to engage thousands of citizens in townhall meetings to deliberate specific policies.

Using evidence to select policies and promote policy reform

Simply creating political commitment for the agriculture-for-development agenda is not enough. Countries need to select the appropriate mix of policy instruments that meet their needs and priorities (chapter 10). Evidence-based policy making, which involves rigorous research and solid monitoring and evaluation, can facilitate this selection. It can use randomized design to evaluate policy interventions, as in Mexico's widely quoted

BOX 11.3 *Empowering producer organizations and developing a vision for agriculture in Senegal*

In March 2002, Senegal's new president, Abdoulaye Wade, announced that the Senegalese needed a grand vision for agriculture. This vision was to be constructed through more than two years of consultations with development partners, civil society organizations, producer groups, and government ministries. The result is Senegal's Agro-Silvopastoral Law, the *Loi d'Orientation Agro-Sylvo-Pastorale,* a vision of how to modernize agriculture in the next 20 years. It provides legal recognition for the institutional reforms of decentralized services, responsive and accountable to producers and farmer organizations. Its main objective is to reduce poverty and diminish inequalities between urban and rural populations and between men and women.

One of the most active groups in the law's elaboration was the national umbrella organization of agricultural producer organizations, CNCR (*Conseil National de Concertation et de Coopération des Ruraux*; see box 6.10). To ensure that the law would reflect the views of smallholders, the CNCR held 35 consultations at the local level, 11 at the regional level, and 1 at the national level. The majority of the propositions in the final bill were recommended by the CNCR, which is frequently referenced in it, indicating the political capital of agricultural producers.

In 2004, the bill was approved by the National Assembly. The Ministry of Agriculture then engaged in a vast communication campaign to disseminate the law and an adapted text, with illustrations and explanations. The text was translated into the country's six national languages: Jola, Mandinke, Pulaar, Serer, Soninke, and Wolof.

Much of the success can be attributed to the CNCR. Leaders of producer organizations created CNCR in 1993 with support from international organizations to organize the country's disparate federations of producer organizations, improve communication and cooperation among producer groups, and ensure that producers spoke with a single voice when engaging with the state and other development partners. To consult with grassroots producer organizations, the CNCR uses the local forums that the organization established under a donor-financed project. These local forums have been instrumental in involving farmers in policy discussions at the local level and disseminating information. Today, the CNCR encompasses 22 federations spanning agriculture, livestock, women, fisheries, and forests. It is also a member of *Réseau des Organisations Paysannes et de Producteurs Agricoles* (ROPPA), a network of peasant and agricultural producer organizations in West Africa, active in regional agricultural policy making.

Sources: Resnick 2006; World Bank 2006c.

conditional cash transfer program, *Oportunidades.* The Mexican congress requires a biannual impact assessment of federal projects as part of a results-based approach to policy design and implementation. The key is to develop effective mechanisms to internalize evaluation results into a process of institutional learning and change.

Research-based evidence can build political support and make policy changes possible.[6] Vietnam's liberalization of rice policy in 1995–97 was promoted by a study showing that liberalization would not reduce food security and would have beneficial effects on farm prices and poverty, addressing key concerns of the reform's opponents.[7] Donors are using Poverty and Social Impact Assessments to promote policy dialogue on agricultural reforms, such as cotton sector reform in Burkina Faso. Such assessments combine quantitative and qualitative analysis—and involve local stakeholders and experts in identifying winners and losers of proposed reforms—to arrive at socially acceptable reform strategies. Another interesting example is Canada's Rural Lens, a law that introduces a mandatory social impact assessment of policies that affect rural populations.

Aligning agricultural policies with budgets

Aligning agricultural strategies and policies with budgets is important to avoid underinvestment and misinvestment. Investing is more challenging for the agriculture-based countries, given the considerable financial resources required for the agriculture-for-development agenda. Donor funding can help meet these requirements, but increasing the domestic revenue base and improving budget planning and management are national responsibilities. Medium-term expenditure frameworks, based on program budgets with clear objectives, specific costing, and transparent planning, align financial resources with priorities. Vietnam is pioneering the use of evidence-based assessments to ensure that agriculture is appropriately included in its medium-term expenditure plans (box 11.4).

In transforming and urbanized countries, the challenge is often to create political support for reallocating budgetary resources from unproductive and inequitable subsidies to more effective policy instruments. In 10 Latin American countries, the share of nonsocial subsidies in public expenditures in the rural sector was, on average, 48 percent between 1985 and

2000.[8] Political support for reform can be created by increasing transparency about the distributional effects of such policies to build new coalitions in favor of reform, moving gradually to targeted subsidies, and packaging and sequencing reforms in ways that reduce opposition (chapter 4).

Strengthening parliaments

In democracies, parliaments are expected to be a key player in agricultural policy making and budgeting. Yet in emerging democracies, especially in Africa, parliamentarians often lack the resources, information, and support staff to engage in the formulation of agricultural strategies, policies, and budgets. Strengthening the capacity of parliamentary committees in charge of agriculture, rural development, and finance can thus build support for the agriculture-for-development agenda. For example, the difficulty of Uganda's Ministry of Agriculture to inform, engage, and persuade parliamentarians of the merits of its Plan for Modernization of Agriculture (see box 11.2) is one of the main challenges in securing adequate funding for some of its core public services.

Promoting regional integration

Coordinating agricultural policies at the regional level across countries can produce synergies and economies of scale to realize the agriculture-for-development agenda.

BOX 11.4 *Vietnam's progress in aligning budgets with sector priorities*

As part of Vietnam's public administration reform in 2002, the Ministry of Agriculture and Rural Development reorganized its structure and role. Since then, it has been steadily becoming more market oriented, reorganizing the functions and competencies of its staff, and realigning and refocusing its public expenditures on new priorities. The ministry is developing a medium-term expenditure framework with clear performance and outcome indicators and preparing three-year rolling and annual expenditure plans. Recently, it started evidence-based assessments of its rural development strategy and selected investment projects. These reforms need to be deepened and sustained as they endeavor to improve expenditure management at the local level, given the recent decentralization of public spending.

Source: World Bank 2006a.

Regional integration can also strengthen governance in support of agriculture. West Africa's experience illustrates the opportunities and the challenges (box 11.5).

Governance reforms for better policy implementation

Strengthening governance is essential not only for policy making, but also for implementing agricultural agendas effectively and using public resources efficiently. To improve governance for policy implementation, it helps to distinguish demand-side approaches from supply-side approaches (figure 11.2), identifying combinations of approaches that are politically feasible and fit country conditions.

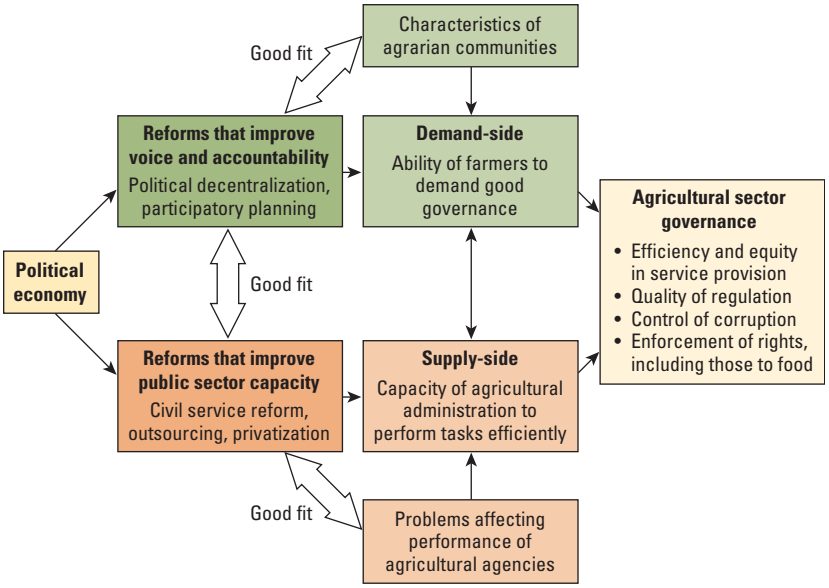
BOX 11.5 *Regional integration: opportunities and challenges in West Africa*

West African countries engage in numerous regional processes aimed to reduce transaction costs and capture economies of scale and cluster effects across a large number of small countries. Some take part in the African Peer Review Mechanism, a regional approach to improve governance. The Economic Community of West African States (ECOWAS) engages in conflict prevention and resolution, which are important for agricultural development. The francophone West African countries that are members of the African Economic and Monetary Union (UEMOA) benefit from a single currency and a customs union. The member countries of the Permanent Inter-State Committee for Drought Control in the Sahel save on regulatory costs through the Common Regulation for the Registration of Pesticides. The national agricultural research systems of 21 West and Central African countries capture economies of scale in crop breeding, through their collaboration in the West and Central African Council for Agricultural Research and Development. Farmers in West Africa, including smallholders, are also organized at the regional level: *Réseau des Organisations Paysannes et de Producteurs Agricoles* (ROPPA), the regional network of agricultural producer organizations in West Africa (see box 11.3) is active in regional agricultural policy making and in developing a regional agricultural research strategy.

But regional integration has its challenges. More than 40 different organizations are working on economic integration in West Africa, and even the major ones face challenges in coordinating and aligning their agricultural policies. ECOWAS has taken the lead in implementing the Comprehensive Africa Agriculture Development Program of the New Partnership for Africa's Development in West Africa. This program needs to be harmonized with the agricultural policy of UEMOA, and with the agricultural policies of each member country. In addition, it has to align regional agricultural policies with appropriate budgets, ensuring and monitoring their implementation.

Sources: African Capacity Building Foundation 2006; Resnick 2006; WDR consultation in Bamako, April 2–3, 2007.

Figure 11.2 Good fits to country-specific conditions for demand-side and supply-side approaches are needed to improve agricultural sector governance



Source: Birner and Palaniswamy forthcoming.
Note: The "good fit" arrows in the figure indicate that strategies to improve agricultural governance need to be context-specific, taking account of, for example, the characteristics of local communities (demand side) or the specific problems that affect the performance of agricultural agencies (supply side). Moreover, demand-side and supply-side approaches need to be well coordinated.

Reforming ministries of agricultural and rural development

Although direct state involvement in agriculture can be reduced—through outsourcing, for example—an effective agricultural administration remains essential in pursuing the agriculture-for-development agenda. Agricultural ministries require new skills and management structures to fulfill their new roles. For example, while outsourcing agricultural extension reduces the need to manage large numbers of extension personnel directly, it also requires new skills—selecting and managing contracts, ensuring the quality of extension services under contracts, controlling for corruption in procurement, and collaborating with farmers' organizations in managing the contracts.

Internal reforms are needed to improve the coordination among ministries of food, agriculture, and rural development, and other sectoral ministries. Several models of coordination have been tried, but solutions need to be country-specific. Mexico combined its ministries for agriculture and rural development, whereas Brazil separated them. Uganda established a coordinating body chaired by the Ministry of Finance (see box 11.2).

Because agricultural ministries are part of the public administration, and subject to general civil service regulations, essential internal reforms, such as adjusting the salary structure and recruitment system, are often possible only as part of general public sector reforms. Although public administration reform has been on the agenda for a long time, there are some innovative new approaches. India is making progress in using e-government (for land records). El Salvador, Mexico, and Malaysia subject government agencies to the ISO 9000 management certification of the International Organization for Standardization; certification is based on performance orientation and client satisfaction.

Internal reforms are required to mainstream gender in ministries of agriculture. Such reforms need to ensure both the recruitment and advancement of women in agriculture ministries, as well as oversee the delivery of gender-sensitive policies, programs, and services.

Internal reforms of the public administration face major political challenges, especially if they lay off staff and switch from seniority-based to performance-based remuneration systems. In situations in which general reforms are not forthcoming, it is often advisable to unbundle the public administration reform and pilot reforms in key government agencies.

Whatever reform path is chosen, creating a mission-oriented and results-oriented public service, with staff from the top to the field who are committed to the agriculture-for-development agenda, requires vision and leadership from change agents and reform champions (box 11.6).

Rolling back the boundaries of the state

Public sector reforms that roll back the boundaries of the state have been discussed in previous chapters:

- *Contracting out* is suitable for functions that require public finance but not necessarily public provision. It is increasingly used for agricultural advisory services, as in Uganda (chapter 7).
- *Public-private partnerships* go beyond outsourcing, creating joint responsibili-

ties for financing and providing agricultural services and infrastructure, as with Banrural, which provides financial services to smallholders in Guatemala (chapter 6). Not all such programs are suitable for targeting the poor, but they can free up public resources, which can then be targeted toward the poor under other institutional arrangements.

- *Public-private-civil society partnerships involve third-sector organizations*, such as producer organizations, along with public sector agencies and private businesses, as with Ghana's Sustainable Uptake of Cassava as an Industrial Commodity Project (chapter 7).
- *Devolving management authority to user groups* is widely applied in natural resource and irrigation management. The opportunities and challenges of devolution to user groups are comparable to those of CDD, discussed below.
- *Privatization* works best for those services that do not require state involvement. Veterinary services provide a good example. In 10 Sub-Saharan countries, the number of private veterinarians increased from 70 in the mid-1980s to 1,780 in 2004.[9] At the same time, public sector veterinarians continue to play a role.
- *Service cooperatives*, formed and owned by producers, can provide pro-poor agricultural services. In India, dairy cooperatives provide services to more than 12 million households, benefiting women in particular because of their role in dairy farming (chapter 6).

Creating accountability—short and long routes

Internal reforms of the agricultural administration and rolling back the boundaries of the state are supply-side approaches. To make such reforms work for the poor, it is important to combine them with demand-side approaches that strengthen the ability of rural people to demand better agricultural services and hold service providers accountable. For example, in Ethiopia, NGOs are assessing farmer satisfaction with agricultural advisory or irrigation services by piloting the Citizen Report Card.

BOX 11.6 ***Making a green revolution through vision and leadership***

India's green revolution was possible only because political and administrative leaders addressed market failures and enabled large numbers of smallholders to intensify their production. It had the full political support of the prime minister, but it also required the vision and leadership of highly competent officials in the public administration. C. Subramaniam, Minister of Agriculture from 1964–67, believed in the role of science and in the ability of smallholders to modernize agriculture. He persuaded the skeptics in parliament and the planning commission of that role. And he spearheaded the reform of institutions and policies to support agriculture, overcoming all kinds of administrative and regulatory obstacles. Vision and leadership are also required to make intensive agriculture environmentally sustainable. M.S. Swaminathan, the scientific leader of India's green revolution, is now pioneering an "evergreen revolution."

The Office du Niger irrigation scheme, covering 60,000 hectares in Mali (chapter 8), shows that green revolution successes are possible in Africa. Rice yields there quadrupled between 1982 and 2002, thanks in part to a far-reaching institutional reform, which empowered farmers to participate in the scheme's management through three-party performance contracts, valid for three years. The Office du Niger agency is accountable to farmers, and joint staff-farmer committees set priorities and outsource maintenance, fully paid for by the farmers. The Minister of Rural Development, Boubacar Sada Sy, and the manager of the agency, Traoré, took the lead in encouraging smallholder farmers to intensify their production. As in India, the reform champions in the public administration had the full support of their prime ministers.

Sources: Aw and Diemer 2005; Subramaniam 1995; Swaminathan 1993.

Another promising approach involves producer organizations in the management boards of, say, agricultural research organizations. Next to these "short routes" of making service providers accountable to farmers is a "long route:" farmers can use lobbying and voting to induce decision makers to take steps to improve the performance of agricultural services.[10] Freeing the rural vote by reducing vote buying and promoting multiparty competition helps to make this route more effective. Informing the electorate about service performance via accessible media is also essential.

Creating accountability to rural women requires special efforts, such as seats for female representatives in management boards, and the use of gender-disaggregated report cards. Promoting rural women's associations can help them use both the short and the long route of creating accountability.

Creating effective regulatory agencies for agriculture

Effective regulatory agencies create an enabling investment climate for the private sector and farmer organizations. Agricultural regulation has to address wider development objectives—such as

ensuring food safety and public health, reaching environmental goals, and protecting agricultural laborers. Outsourcing and privatization may require agencies to take on new regulatory tasks, such as auditing and antimonopoly regulation.

Regulation has to strike an appropriate balance among different interest groups, avoiding both overregulation and underregulation, especially if there are risks and uncertainties—for example, with a new technology. Regulatory agencies need reform to meet this challenge and avoid political and special interest capture. Solutions need to be country-specific, but creating independent regulatory agencies and encouraging participation of the public in regulation is often promising. Investing in the capacity to enforce agricultural regulation is important, too. Seed certification is an example. In Tamil Nadu, India, farmers suffered considerable income losses because they received spurious Bt cotton seeds.[11] Putting into place performing and fair conflict resolution mechanisms is an integral component of effective regulation.

Controlling corruption in agriculture

Corruption can blunt the agriculture-for-development agenda. Land administration is often one of the most corrupt government agencies (chapter 6). Large agricultural infrastructure projects, such as those for irrigation, are also prone to corruption, as is water allocation in public irrigation systems.[12] Companies may bribe regulators, as in biotechnology regulation in Indonesia and pesticide regulation in India.[13] The more the state is involved in supplying inputs, such as fertilizer and credit, and in marketing agricultural products, the greater is the potential for corruption. That is why rolling back the state can reduce corruption.

Both demand-side and supply-side approaches can overcome corruption in agriculture. Public expenditure management reforms and procurement reforms are typical supply-side approaches, which are often part of general public sector reform. A successful demand-side example is the monitoring of food prices in ration shops by women's groups in India.[14] A study of strategies to reduce corruption in village road projects applied a randomized experimental design to compare social audits, a demand-side approach, and government audits, a supply-side approach. The study suggests that grassroots monitoring may reduce theft more when community members have substantial private stakes in the outcome.[15] Another study found that government audits become more effective when they are publicized through local press or radio.[16] New technologies, especially ICTs (e-government), can reduce the scope for corruption, as with computerizing land records in Karnataka (chapter 6). Despite such evidence, studies on strategies to deal with corruption in agriculture are rather scarce; more research would help to identify what works, where, and why, especially if public investment in agriculture is to increase.

Decentralization and local governance

Decentralization—the transfer of political, administrative, and fiscal authority to lower levels of government—is one governance reform that can support the agriculture-for-development agenda. By bringing government closer to the people, it promises to make policy making and implementation more responsive to the needs of the (often disenfranchised) people in rural areas. It can correct government failures in agriculture by ensuring greater access to local information and by mobilizing local social capital for policy enforcement. It can help to meet the coordination challenges in the agriculture-for-development agenda. Moreover, it holds particular promise for better adjusting policies to meet the diverse local conditions of African agriculture, provided sufficient capacity and accountability can be developed at the local level (chapter 10).

Decentralization has been widespread. Indeed, 80 percent of all developing countries have experimented with some form of it, and 70 percent of Sub-Saharan countries have pursued political decentralization.[17]

Yet, locally elected bodies still have limited scope for action because fiscal decentralization has been lagging behind political decentralization, and administrative decentralization of rural service delivery varies widely across countries.

Identifying appropriate levels of decentralization

The principle of subsidiarity provides the basis of a framework for identifying appropriate levels of decentralization for agricultural functions. Public functions of strategic relevance—such as ensuring food safety and controlling epidemics—need to remain national responsibilities, even though their implementation may require considerable administrative capacity at intermediate and local levels. For agricultural research, agroecological zones rather than administrative levels may be the appropriate level of decentralization for efficiency, although not necessarily for political support, which illustrates the tradeoffs in identifying the appropriate level of decentralization. Agricultural extension, which confronts local heterogeneity and a dispersed clientele, is often best organized at the lowest tier of government and in close interaction with community organizations.

The capacity and the accountability mechanisms for providing a good or service deserve special attention. In many agriculture-based countries, the deficits are both central and local. That makes it essential to invest in capacity and accountability at different levels of government, depending on the agricultural functions to be decentralized and the best long-term prospects for creating capacity and accountability.

Decentralization is a political process that shifts power and authority. Like other ministries, agricultural ministries at the central level often resist the transfer of their fiscal resources and their staff to local governments. This resistance limits the possibilities of elected local bodies created by political decentralization to become active players in the agriculture-for-development agenda. Creating political support for reform is often essential to complete an unfinished agenda and realize decentralization's promise.

Increasing the fiscal contributions of local governments

One goal of fiscal decentralization is to improve revenue generation while making local governments accountable to local taxpayers, but subnational governments still contribute little to resources. In Mexico, state governments contributed 16 percent on average of the resources for agriculture, livestock, and rural development programs (during 1996–2004), with the remainder coming from tied central transfers. In Uganda, locally generated revenue is less than 10 percent of the funds administered by local councils, with the remainder coming from central government transfers, most of which are earmarked conditional grants (84 percent in 2000–01).[18]

Efforts by local governments to raise local revenue (especially by production levies) have occasionally added a significant tax burden to agriculture with little benefit, as in Tanzania[19] and Uganda.[20] In China, too, local officials had in the past imposed a multiplicity of fees on rural populations, leading to large protests. Central authorities responded in 2004 by prohibiting local officials from raising fees on peasants and by abolishing agricultural taxation, but without fully compensating local governments, leading to a local public expenditure crisis.[21] Improving the fiscal capacity of local governments will require title services for real estate assets, more elastic tax bases, revenue-sharing funds from better-off to poorer regions, and cofinancing funds to favor specific investments or groups, such as the very poor.

Giving priority to agriculture agendas

Local government institutions need to set priorities, but what priority should they assign to an agriculture-for-development agenda? Obviously, local political leadership matters. But the institutional design of local government institutions is important, too. Special provisions can reduce elite capture and social exclusion. In India, the *panchayati raj* (village councils) reserve seats for women and for members of scheduled castes and tribes. A study of the effects of reserving seats for women in

two Indian states found that this participation increased investment in the type of infrastructure relevant to women.[22] The experience in several South Asian countries shows that female local councilors can become more effective, if gender-sensitivity training is provided to male and female councilors.[23]

Decentralization to local governments does not necessarily increase public spending on agriculture, it may even reduce it in the short run, especially if people's most basic needs have not been met. Decentralization in Bolivia, stipulated by the 1994 Law of Popular Participation, significantly increased public spending on education, rural infrastructure, and water and sanitation, but average investment in agriculture fell as a share of total investment.[24]

The shift in public spending following decentralization is not bad news for the agriculture-for-development agenda, which recognizes health, education, and rural infrastructure as preconditions for using agriculture for development. But local governments need the capacity to manage the agriculture-specific agenda, as it becomes more important over time. For example, they often neglect agricultural extension, because it is less visible than physical infrastructure and thus associated with fewer electoral rewards. Enhancing the capacity of the local administration to manage extension in consultation with local producer organizations and with support from central agricultural departments can increase the relevance and quality of this service to farmers.

Community-driven development

Broadly defined, CDD gives community groups and local governments control over planning decisions and investment resources. It is thus related to decentralization, and the two approaches can go hand in hand. CDD mobilizes community groups and involves them directly in decisions on public spending, harnessing their creativity, capabilities, and social capital. Local governments seldom reach down this far, especially in early phases of decentralization. CDD has challenges, however, and much remains to be learned in designing and implementing CDD projects for agriculture.

Implementing agriculture-for-development agendas locally

Like local governments, communities typically concentrate first on meeting basic needs for health, education, and infrastructure. Once they turn to income-generating activities, however, agricultural projects—including those that link smallholders to high-value markets—become an important choice. Income-generating projects often provide private goods, such as livestock, rather than public goods, such as health facilities. So, they are often implemented with producer groups, rather than the entire community. Such projects need special provisions to avoid elite capture. Smart ways of providing loans and grants are needed to avoid undermining agricultural finance and microfinance institutions. Community-driven watershed development in South India, for example, combines loans with providing seed capital as grants to the poorest villagers.[25]

Community-driven projects in Northeast Brazil that promote agricultural income generation show that success depends not only on community capacity but also on market demand, technical assistance, and capacity building. The most successful projects are those with little exposure to market risk, such as small irrigation schemes. More complex projects are more dependent on technical assistance and training to succeed, requiring effective complementarity between CDD and sectoral approaches.[26]

Developing community-level accountability

Developing accountability is an important condition for enabling communities to implement agriculture-for-development agendas on a large scale. Just like markets and states, communities too can fail. Because they do not have formal structures of authority and accountability, they can be riddled with abuses of power, social exclusion, social conservatism, and conflict. Hence, CDD projects invest significant

resources in changing community practices by encouraging more transparent information flows, broad and gender-sensitive community participation in local decision making, and participatory monitoring of local institutions. Accountability evolves over time, and solutions need to be specific to country context and local conditions. When paired with predictable resource flows, CDD operations can change community dynamics beyond the project scope and timeframe.

Encouraging evaluation and learning

Once a visionary idea, CDD has become a reality on a large scale. More than 9 percent of World Bank lending uses this form of development. Experience shows that CDD can speed the implementation of projects, increase cost-effectiveness, make fiscal transfers more efficient, improve the quality of infrastructure, and increase the income from agriculture. Considerable experience has been achieved in scaling up,[27] but drawing definitive conclusions requires more rigorous impact evaluations.[28] Further experimentation, evaluation, and learning will show what CDD can do to support the agriculture-for-development agenda and how it can most effectively do it.

Aid effectiveness for agricultural programs

International financial institutions, bilateral and multilateral development agencies, international NGOs, and other development partners all have roles in realizing the agriculture-for-development agenda. Increased donor funding is essential to finance the agenda. But development assistance is already a large part of the agricultural budget in most agriculture-based economies. For 24 Sub-Saharan countries, official development assistance (ODA) averages 28 percent of total agricultural spending,[29] and for Mozambique, Niger, and Rwanda, ODA averages more than 80 percent.[30] With such high dependence, development assistance must be effective, strengthening rather than undermining country efforts to improve governance in agriculture.

Donor failures and governance challenges

Because donors are accountable to constituencies in their home countries, they have incentives to support projects and programs that can be attributed to them. This often leads to fragmented, overlapping, discontinuous, and sometimes contradictory donor interventions. In Ethiopia, almost 20 donors were supporting more than 100 agricultural projects in 2005, with high transaction costs and duplicated efforts. In Malawi, inconsistent donor agricultural policies and shifting government priorities have redesigned national food security programs several times.[31]

Concerned about aid effectiveness, donors now use indicators of good governance as criteria to select countries that qualify for development assistance. This practice poses a dilemma for the agriculture-for-development agenda, because agriculture-based countries tend to be less eligible for assistance. Large aid flows involve other governance challenges, too, creating scope for corruption and making governments less accountable to their constituencies and parliaments. Agricultural protection in donor countries can undermine the assistance available to agriculture in developing countries, creating a governance challenge that donor countries face—that is, policy incoherence (chapter 4).

Global and regional initiatives

The global development community—donors and partner countries alike—has committed to the principles of the Paris Declaration on Aid Effectiveness, which was signed in 2005: strengthening national ownership and government leadership, aligning donor support to government priorities and procedures, harmonizing government and donor processes, managing resources for development results, and ensuring mutual accountability.

Several initiatives support these principles in rural development. The Global Donor Platform for Rural Development, a network of 29 donor and development agencies, supports donors and recipient governments in the preparation and implementa-

tion of joint agricultural programs under the aid effectiveness framework of the Development Assistance Committee of the Organisation for Economic Co-operation and Development (OECD). The Platform pools practical experiences and derives guidelines for managing agricultural programs. The Regional Unit for Technical Assistance (RUTA), a regional network to enhance aid effectiveness in Central America, supports cross-country exchanges and provides expertise to governments. TerrAfrica, a partnership between African governments, regional organizations, civil society, scientific organizations, and bilateral and multilateral donors aims to provide harmonized support for sustainable land management practices in Africa. The Neuchâtel Initiative, an informal group of representatives of bilateral and multilateral donors, develops common views and guidelines for support to agricultural advisory services.[32]

Government leadership, country ownership, and sectorwide approaches

Government leadership and country ownership are prerequisites for aid effectiveness. They require that development partners align their assistance to the agricultural development strategies of countries. Aligning development assistance to a country-owned sectoral strategy is also inherent in the sectorwide approach (SWAp), originally developed for health and education.[33] Under this approach, the government and donors agree to support a coherent agricultural sector development program, coupled with policy and institutional reform. If properly designed, phased, and implemented according to government priorities and capacities, agricultural SWAps offer a way to align donor support with the government's public expenditure and procurement systems.

In Uganda, a coherent country-led poverty reduction strategy was supported by a sound agricultural strategy and institutional reforms (see box 11.2). The management of aid flows for a coherent pro-poor expenditure strategy, including that for rural areas, has resulted in stable long-term commitments by donors.[34] In Tanzania, government leadership has overcome fragmentation (17 bilateral and multilateral donors supported agriculture in 2005) largely through "basket funding" (pooling donor resources) guided by an agreed-on agricultural development program.

Nicaragua's sectorwide Prorural Program, launched in 2005, addresses some of the difficulties typical in SWAPs. The government, the private sector, and 15 donors—supplying more than 90 percent of donor assistance for agriculture—signed a Code of Conduct to promote country leadership, harmonization, and alignment. A common fund, set up in 2006, merges the contributions of donor agencies into a single account, which is used for the priorities defined by Nicaraguan institutions. Although this is a good start, initial transaction costs have been high and, thus far, only four donors have contributed to the single account.

A sharper focus on results

With the foreseeable increases in aid, donors have to do more to deliver it effectively. Incentives are needed to achieve results. In Tanzania and Uganda, for example, implementation performance is influencing budget allocations—more resources go to areas and institutions that have a good track record in delivering agreed results.[35]

The quality of donor support to agriculture has also been improving. The share of World Bank–supported loans to agriculture rated satisfactory or higher by the Independent Evaluation Group increased from 57 percent in 1992 to 88 percent in 2005. Even so, scaling up support to the agriculture-for-development agenda will require more experimentation, learning, and adjustment, using a variety of mechanisms, such as adjustable program lending and learning and innovation loans.[36] Good evaluation will be critical to scaling up.

Progress on the global agenda

Implementing the agriculture-for-development agenda requires more than better governance and donor coordination. Action at the global level is essential for countries' agendas to succeed in a dynamic global environment. Progress in agriculture is also essential to meet the great global challenges

of the 21st century, including environment, health, poverty, and security. The emerging global agenda for agriculture has new issues and new goals, driven by new actors, cutting across sectors. But the institutions and mechanisms to implement and finance the global agenda are lagging behind these new developments. How can they be reformed to respond to the new political and economic realities?

A global agenda for agriculture in the 21st century

The global agenda identified in this *Report* (chapters 4–9) responds to the rapid changes in food and agricultural systems and in economic structures, to the need to reduce poverty, and to the challenge of environmental sustainability.

Achieving global justice and equity. The Millennium Development Goals, set by the heads of state at the 2000 UN Millennium Summit, have become the overarching guide to global justice and equity. Four of the goals—those for poverty and hunger, gender equity, environmental sustainability, and equitable exchange in international trade—are closely linked to the agriculture-for-development agenda. International development assistance is one of the major instruments for realizing global justice and equity, but other efforts are equally important. For example, export subsidies and import protection by richer countries harm poorer countries' potential to use agriculture for development (chapter 4). Richer countries' emissions of greenhouse gases (GHG) already undermine the productivity of farming systems essential to survival of the poor (focus F).

Conducting global R&D for the poor in an era of privatization. Agricultural R&D is an important element of the global agenda, because many types of agricultural research have economies of scale, requiring collective action to capture these economies of scale and produce pro-poor technological spillovers, especially for orphan crops (cassava, millet, beans) and livestock (goats). R&D is also important to enable agriculture to mitigate and adapt to climate change. The molecular biology revolution is accelerating the possibilities to increase productivity, but it is driven by multinational, private sector firms. If these technologies are to benefit the poor, it is essential to increase public investment in research, to establish effective biosafety protocols and regulations, and to provide access for developing countries to genes and techniques protected by intellectual property rights (chapter 7).

Conserving genetic resources for future food security. Genetic resources and seeds have been the basis for some of the most successful agricultural interventions to promote growth and reduce poverty (chapter 7). Conserving the world's rich heritage of crop and animal genetic diversity is essential to future global food security. Gene banks and in situ resources that provide fair access to all countries and equitably share the benefits are a global public good that requires global collective action.

Reducing transboundary costs from pandemic animal and plant diseases and invasive species. Plant and animal diseases and invasive species have spread because of the explosion in international travel and trade and the growing intensity of agricultural systems. The costs of these diseases potentially can become quite high if the diseases spread and become prevalent globally, as with Highly Pathogenic Avian Influenza, which poses huge risks to human health. There is a clear case for international cooperation both to control infectious plant and livestock diseases at their source and to prevent their spread between countries in ways that reduce disruptions to trade in agricultural products. The world also seems insufficiently prepared for the threat of bioterrorism that may affect the food and agricultural system.

Exercising global environmental stewardship for sustainable development. The 2002 Earth Summit in Rio wedded the environmental-sustainability agenda to the broader development agenda (chapter 8). As regional or local solutions are usually insufficient, global collective action is required to slow desertification, deforestation, and the loss of biodiversity. Providing

food for 9 billion people in 2050 and ramping up biofuels production will further intensify competition for precious water and land resources.

Managing the global commons—climate change. Climate change illustrates the failure to manage the world's most important common property resource, its atmosphere. It is now accepted that global warming will be most severe closer to the equator, with major impacts on the rural poor (see focus F). Although the Framework Convention on Climate Change and its Kyoto Protocol have achieved much, some major polluting countries have—until recently—attached low priority to mitigating climate change, an example of "free-riding." The economic costs of global inaction will be huge. Agriculture is the sector most vulnerable to climate change, and crop failures and livestock losses are already imposing high economic costs on the poor, undermining food security. However, agriculture also presents major opportunities for reducing global greenhouse gas emissions through carbon sequestration, better livestock management, and reduced rates of deforestation and forest degradation.

Reducing the transaction costs of trade through rules and standards. Reducing barriers and transaction costs in international trade needs clear rules of the game that regulate a wide variety of public policies set at the national level, including sanitary and phytosanitary rules and grades and standards for specific products (chapter 5).

The need for better coordination

Many of these issues are interrelated, a hallmark of the new global agenda. Animal diseases relate to sanitary standards for trade, to health, and to the environment. Genetic resources relate to efficient management of international agricultural research and technology spillovers as well as to the management of intellectual property and the capacity to control plant diseases. Almost all of the issues now have environmental, poverty, and gender dimensions, and many intersect with human health and trade. All this heightens the need for coordinated efforts across sectors and institutions.

New players and radically changed roles for existing ones

The Food and Agriculture Organization (FAO) of the United Nations was one of the first global institutions created at the end of World War II, acknowledging the need to ensure adequate food for all as a precondition to security and peace. With the creation of the Consultative Group on International Agricultural Development (CGIAR) in 1971, the international community provided agricultural science and technology as a global public good (chapter 7).

Efforts to standardize rules, including for trade in agricultural commodities, led to the creation of the WTO and a variety of standard-setting institutions, such as the World Organization for Animal Health (OIE) and Codex Alimentarius (table 11.1).

The global institutions and agreements for the environment were created in parallel to those for agriculture, development, and trade, initially with little recognition of one another. Traditional agricultural actors, such as the FAO, retained a leadership role in important areas despite a decline in technical staff, but they played a rather limited role in the negotiations of global conventions on biodiversity, climate change, and desertification, which were signed at the Earth Summit in Rio de Janeiro in 1992.

Traditional specialized intergovernmental organizations, designed for a simpler agenda in an earlier time, do not fit well into the new cross-cutting agenda. Nor have they adjusted to the rapid rise of new players.

In the 1990s, new actors, especially a vibrant international NGO community, entered the global arena, pushing governments to move ahead on the global development agenda and complementing public initiatives with their own interventions, particularly for food security, the environment, and global justice and equity. The budgets of some of the most influential of these organizations—Oxfam, the World Wide Fund for Nature (WWF), and CARE—are comparable to or even exceed the FAO budget.[37] The new actors are active in advocacy and harness private and mixed

Table 11.1 Types of global organizations and networks relevant for agriculture

Sector/specialization	Intergovernmental organizations	Other organizations
Specialized organizations in the agricultural sector	Food and Agriculture Organization of the UN International Fund for Agricultural Development World Organization for Animal Health World Food Program Global Donor Platform for Rural Development (including bilateral donors)	Global networks of farmers organizations (for example, International Federation of Agricultural Producers, Via Campesina)[a] Multinational agribusiness enterprises (for example, Monsanto, Dow Chemicals)[b] Supermarket chains[b] Consultative Group on International Agricultural Development[c]
Cross-sectoral organizations and networks that include agriculture	Codex Alimentarius	HarvestPlus[c]
Development organizations and funding agencies with agricultural programs	World Bank Group United Nations Development Programme	Private foundations and funding agencies (for example, Rockefeller; Gates Foundation)[a] Nongovernmental development organizations (for example, Oxfam, CARE, Catholic Relief Services)[a]
Specialized environmental organizations	United Nations Environment Programme Intergovernmental Panel on Climate Change Global Environmental Facility	Environmental NGOs (for example, World Wide Fund for Nature, Greenpeace)[a] International Union for the Conservation of Nature[c]
Specialized organizations in other sectors	World Health Organization World Trade Organization United Nations Development Fund for Women	Multinational pharmaceutical and biotechnology companies[b] International Organization for Standardization[c]
General global governance bodies	G8 Summit; G8+5 United Nations Secretariat, Assembly and Economic and Social Council	

Source: WDR 2008 team.
a. Nongovernmental organizations and networks
b. Private sector enterprises
c. Organizations with mixed membership (governmental and/or civil society and/or private sector)

public-private financing for global public goods, which has dramatically risen in the last decade.

The Rockefeller and Ford Foundations were among the first philanthropists to support agricultural development, beginning in Mexico in 1942 and then spearheading the establishment of the international research centers of the CGIAR. The Gates Foundation has recently become one of the largest funders of the agriculture agenda, mainly in Sub-Saharan Africa, and the Google and Clinton Foundations are entering agriculture as well.

The global reach of agribusiness has dramatically changed the dynamics of the global agenda, especially through integrated supply chains, global concentrations in some industries, and the dominance of private R&D in some areas (see focus D). Private business networks such as the Africa Business Roundtable have started to promote investment in agriculture.

New actors from the developing world are getting involved. China has a strategy to support African agriculture,[38] and India provides technical assistance to several countries in Africa. EMBRAPA (*Empresa Brasileira de Pesquisa Agropecuária*) the Brazilian public corporation for agricultural R&D, recently opened EMBRAPA Africa to provide technical assistance and training to Ghanaian scientists.

The agriculture-for-development agenda in the new global context

Given the complexity and the number of emerging issues, major cross-cutting forces, and new players, delivering on a complex agriculture-for-development agenda is an enormous challenge, one that is well beyond the capacity of the current international institutional architecture. Many experiences on the ground, however, can provide useful lessons for moving forward (box 11.7).

Feasibility and institutional requirements differ considerably, depending on the

BOX 11.7 *Delivering international public goods*

Agricultural research

The CGIAR is one of the most successful of the global institutional innovations in the 20th century. A collective effort with informal governance, it started with 18 members (funders), a budget of $100 million (in 2007 U.S. dollars), and four research centers in 1971. It has since grown to 64 members, 25 of them developing countries, with a budget of $451 million (14 percent from developing countries), supporting 15 research centers. Investing in the CGIAR has paid off handsomely.[39] The system helps countries benefit from scale economies in R&D (chapter 7).

Nonetheless, the CGIAR's funding and focus have become issues in maintaining its relevance. There has been a shift toward country-specific, short-run payoffs in development activities, driven by preferences of individual donors rather than by collective action. These activities are at the expense of strategic investments in international public goods with long-term payoffs, such as the conservation and improvement of genetic resources, biotechnology, plant breeding, and natural resource management.

The CGIAR also has to interact with a range of new stakeholders. A good example is the Harvest Plus Program, which uses conventional crop breeding to produce crops with increased micronutrient content. The program illustrates new ways of doing business: It provides funding to 10 CGIAR centers and collaborates with universities, government agencies, and NGOs in both developed and developing countries. The program works in 20 developing countries and has attracted $52.2 million in grants, including $28.5 million from the Gates Foundation.

Genetic resources

The growing movement to manage the genetic resource commons spurred the International Treaty on Plant Genetic Resources for Food and Agriculture, which promotes the conservation and sustainable use of plant genetic resources and the fair and equitable sharing of the benefits arising out of their use for food and agriculture. To support this, the Global Crop Diversity Trust was established in 2004 by Bioversity International and the FAO to develop and promote a global genetic conservation system for important crops covered by the treaty. The trust has a target of $250 million in endowments, with more than $115 million pledged to date.

The Treaty on Plant Genetic Resources was negotiated for seven years, in response to and in harmony with the the Convention on Biodiversity. Other international agreements also affect the exchange and conservation of genetic resources. These include the Trade Related Aspects of Intellectual Property Rights (TRIPs) agreement under the WTO, the Convention on Biodiversity, the Intergovernmental Committee on Genetic Resources, Traditional Knowledge and Folklore under the World Intellectual Property Rights Organization. Harmonizing the agreements is an ongoing challenge because they have been developed in different sectors by government officials from different ministries (trade, agricultures, environment, and culture).

Food safety and quality

Codex Alimentarius, led by the FAO and WHO, is a long-standing example of international interagency, public-private sector cooperation in food standards, labeling practice, hygiene, and additives. The International Organization for Standardization (ISO), a nongovernmental network of 157 national standards institutions, which come together to agree on comparable international standards, has sections on agriculture and on food technology.

The Sanitary and Phytosanitary Measures Agreement of the WTO defines transparent rules and standards governing cross-border movements of products. Progress has been modest since countries have different values and risks associated with food products, leading to differences in their interest in setting rules and standards. The private sector has also introduced a wealth of new standards. Yet the efforts to harmonize standards offer potentially very large payoffs. Support for good analytical work to understand the benefits, costs, and risks is important to inform international negotiations.

Transboundary spread of animal diseases

A remarkable example of international collaboration in controlling animal diseases is the near elimination of rinderpest, a highly contagious viral disease in cattle. In the early 1980s, the disease was raging across Africa, with losses estimated at $2 billion in Nigeria alone in 1979–83, and spreading over much of Asia and into Europe. The Global Rinderpest Eradication Programme—led by regional organizations and supported by the FAO and other donor organizations—was created to coordinate the worldwide eradication of rinderpest by 2010 through the collaboration of community animal health workers, herders, NGOs, and governments in a systematic surveillance and vaccination program. Today, rinderpest is close to being eradicated, although possible circulation of the virus in the Somali ecosystem is still a concern. The benefit-cost ratio of the program is estimated between 1.4 and 2.6.

To reduce the risk of disease outbreaks and transmission, the response of industrial countries has been strong where there are risks to human health. Commitments to the Global Fund for Control of Highly Pathogenic Avian Influenza are now close to $2.5 billion. But donor response generally has been reactive and not proactive in giving long-term support to surveillance and early alert systems in developing countries.

Sources: http://www.csiro.au; Consultative Group on International Agricultural Research (CGIAR) 2006; Global Crop Diversity Trust 2006; Mariner, Roeder, and Admassu 2002; Pardey and others 2006; Perrings and Gadgil 2006; Pinstrup-Andersen 2006; Raitzer 2003; Unnevehr 2004; World Bank 2004a.

type of global public good to be provided (boxes 11.7 and 11.8). Some, such as R&D and standard setting, require fairly specialized institutions and long-term commitments for funding. Others, like combating transboundary diseases, require flexible mechanisms for immediate responses and cross-sectoral coordination. They may be dissolved if their purpose, such as eradicating rinderpest, is met. Other elements of the global agenda, such as combating climate change and managing natural resources of global importance, require an effective participation of agricultural organizations in a much broader cross-sectoral and long-term institutional setting.

Reforming global governance. The need to reform global institutions is widely recognized, and various reform options are on the table, ranging from management and operational reforms to improve the efficiency of UN agencies, including the FAO, to consolidating the many UN agencies into

BOX 11.8 ***Global financing for climate change adaptation and mitigation—the urgency of addressing the needs of vulnerable countries and small-scale farmers***

Without significant investments in adaptation, climate change will undermine progress in attainment of the MDGs in vulnerable developing countries, and especially affect smallholder farming in Sub-Saharan Africa and some other regions. Although no specific estimates are available for the funding needs for adaptation in the agricultural sector—a sector especially sensitive to climate change—they are likely to be large in relation to total current aid flows to the sector. The present sources of funding for adaptation are three funds created by the Marrakech Accords in 2001 within the UN Framework Convention on Climate Change (UNFCCC): the Special Climate Change Fund, the Adaptation Fund (financed through a 2 percent levy on Clean Development Mechanism (CDM) projects), and the Least Developed Countries Fund, as well as the Global Environmental Facility's (GEF) program on climate change. However, the financial resources industrial countries have pledged so far are a small fraction of what will be needed to finance adaptation in vulnerable developing countries. Future agreements could add further funding sources, such as a levy on emissions trading.

Greenhouse gas mitigation projects in developing countries are funded through the CDM of the UNFCCC, but other sources of funding could be agreed upon even before the negotiation of a new climate treaty to succeed the Kyoto agreement. A very small share of total CDM funding is related to agriculture (3 percent of 2006 funding for biomass projects, 2 percent for animal waste, and only 1 percent for agroforestry), and the market share of Africa is merely 3 percent. Inclusion of avoided deforestation and soil carbon sequestration (for example, through conservation tillage) in the CDM—neither of which are currently eligible—or agreement on new sources of funding to include them in carbon markets would open up more opportunities for the participation of agriculture-based countries in Sub-Saharan Africa and other regions, especially if they can be inclusive of smallholders. The recently announced World Bank's pilot Forest Carbon Partnership Facility is designed to overcome implementation challenges for carbon payments for avoided deforestation (whether or not through the CDM) and pave the way for agriculture to play an active role in reducing greenhouse gas emissions from deforestation and forest degradation.

Ensuring that smallholders benefit from adaptation and mitigation programs is key for attaining equity and justice in tackling climate change. The challenges of linking smallholder farmers to global carbon markets are in many ways similar to the challenges of linking smallholders to other emerging markets, and the approaches to achieving this goal presented in chapter 5 are equally relevant. As a pilot carbon financing project that included smallholders in the Chiapas region in Mexico (chapter 8) shows, the formation of producer organizations, an emphasis on capacity strengthening, and the involvement of NGOs can play a key role in reducing transactions costs. Innovative technology for monitoring carbon emissions, such as GIS-based methods, will also help. Importantly, effective community participation and inclusion of the most vulnerable groups in the consultative process and development of adaptation strategies will be needed to ensure that adaptation programs do not bypass the poorest households, the ones most vulnerable to climate risks.

Sources: Schneider and Lane 2006; Mace 2006; Stern 2006; Capoor and Ambrosi 2007; World Bank 2006g; Oxfam International 2007a.

just three—one for development, one for humanitarian affairs, and one for the environment. Reform of international agencies is a complex geopolitical process that will take considerable time and effort.

Simply reforming some elements of the global governance system will not be enough. New mechanisms are needed to meet the three big challenges confronting the global governance of agriculture: to provide political support, coordinate across sectors, and ensure appropriate funding. The difficulty of these challenges depends on the specific element of the agenda. Political controversy is a major constraint for establishing rules for international trade, but not for conventional agricultural R&D. Setting international food standards is relatively inexpensive, whereas funding requirements are a major obstacle to a better management of natural resources. Those elements of the global agenda that are confronted with all three challenges—political controversies, cross-sectoral coordination needs, and high costs—are particularly difficult to realize. Combating climate change is an obvious case in point.

Tackling coordination. Coordination failures for global public goods—associated with different interests of countries, beliefs about regulatory standards, ineffective governance mechanisms, and incoherent or inconsistent international agreements—raise the transaction costs of global governance. While new actors play an important role in advancing the global agenda, they also add to the coordination challenges.

The scope for coordination failures has also increased with the proliferation of international agreements, many driven by specific concerns and developed without effective participation of agricultural stakeholders. It has been a major challenge to harmonize the international agreements that govern the use and exchange of plant genetic resources, as these resources are covered in agreements on conservation and use, trade and intellectual property rights, the environment, and culture and traditional knowledge (box 11.7).[40]

Overlapping and inconsistent agreements burden developing countries with weak implementation capacity. Clustering agreements that deal with related issues is one way around this inconsistency.[41]

Issue-specific global networks and partnerships of old and new actors are an important institutional option to capture emerging opportunities and react to pressing time-bound issues. Examples of such partnerships include new programs for biofortification and the Global Fund for Control of Highly Pathogenic Avian Influenza. Such pragmatic and flexible networks can sometimes be mobilized quickly, as can new funding to allow them to function.

However, proliferation of global partnerships brings new challenges. The primary issues include holding down the transaction costs of coordinating many actors and sustaining funding within weak governance structures.[42] The networks compete for the same funds not only with each other but also with traditional organizations.[43] Thus, it is important to use global partnerships for areas in which they have a clear comparative advantage.

Increasing financial commitments: the political economy of global (in)action. The political economy of global action, linked to national political interests and incentives, determines the prospects for reform of global institutions and to finance the global agenda. Coalitions supporting the global agriculture-for-development agenda need to overcome the political challenges inherent in some elements of the global agenda and to secure appropriate funding. When industrial countries have a strong self-interest, progress is obviously easier, as with Highly Pathogenic Avian Influenza.[44] The significant element of self-interest suggests that additional financing could be provided beyond normal development assistance channels by directly tapping into the budgets of ministries of agriculture.

When industrial countries have less self-interest, leveraging adequate financial support has proven difficult. There is strong evidence that the global community is massively underinvesting in global public goods for food and agriculture and in localized effects of global externalities.[45] Financing seems most difficult for issues that have long-term payoffs, such as science and technology, genetic resources, and climate change.

The most demanding elements of the global agenda cannot be tackled without recognizing that sustainable development is ultimately a matter of global equity and justice. This is particularly obvious in the case of climate change: the richer countries bear the major responsibility for global warming to the present, having overused the global atmospheric commons, though often inadvertently. Yet, many of the poorest farmers are most vulnerable to climate change.[46] Based on the polluter-pays principle, richer countries have a responsibility to assist vulnerable developing countries' adaptation efforts. The financial resources that have been pledged until now are far below the needs (box 11.8).

Yet there is reason for hope: at their 2007 Summit in Heiligendamm, the G8 nations announced that they would "aim to at least halve global CO2 emissions by 2050."[47] Market-based instruments, in particular carbon trading, have already started to play a key role in mitigating climate change. And if the institutional challenges of linking smallholder farmers to global carbon markets can be met, climate mitigation could even become an important income opportunity for them (box 11.8).

Enhancing developing country leadership and capacity. Some technically complex agreements, such as the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPs), were developed with little participation by developing countries, despite the far-reaching implications for them. The negotiating and technical capacity of developing countries needs to be strengthened to address their needs. From 2001 to 2004, the WTO increased its support to developing countries for trade policy and regulation from $2.5 million to $18.9 million, helping countries negotiate, reform, and prepare for integration in the multilateral trading system. Increased participation of developing countries in financing global public goods can also increase their participation in governance and ownership, as in the CGIAR (box 11.7).

Supporting analytical work and advocacy. Better data and scientific certainty on the costs of failing to supply particular global public goods—combined with vigorous advocacy—can build support for the global agenda. In view of the information asymmetries, analytical work is important to inform actors about the benefits and costs of global action—or inaction.[48] Nonstate actors and the media are now highlighting policies in industrial countries that harm developing countries. One example is the pressure for agricultural trade reform led by Oxfam, an international NGO that is having some impact on the European Union (EU) sugar agreement (chapter 4). The assessments of the Intergovernmental Panel on Climate Change (IPCC) and the recent Stern Review[49] have helped raise awareness of the costs of inaction. Such analysis can harness the altruism and support of industrial countries for global public goods, even if poor countries are the main beneficiaries.

Moving forward on better governance for agriculture

Three types of governance problems can hamper the agriculture-for-development agenda. Lack of macroeconomic and political stability limits the development potential of the sector. Political economy problems lead to policy biases and to underinvestment and misinvestment in agriculture. And state resource and capacity problems cause failures in implementing the policy agenda, especially in agriculture-based countries.

Macroeconomic and political stability have improved in many countries. The antiagriculture bias in macroeconomic policies has been reduced as a consequence of economic reforms. In addition, agriculture is likely to benefit from general governance reforms that are now high on the agenda and include decentralization, results-based public sector management, e-government, more rights to information, and new accountability mechanisms.

Evidence suggests that the political economy has been changing in favor of agricultural and rural development. Both civil society and the private sector are stronger. Democratization and the rise of participatory policy making have increased the possibilities for smallholders and the rural poor to raise their political voice. Countries are passing laws that promote rural equity, as in Mexico and Senegal. New and powerful private actors have entered agricultural value chains, and they often have an economic interest in a dynamic and prosperous agricultural sector.

It cannot be assumed, however, that the agriculture-for-development agenda will succeed even if conditions are better now. Policy makers and stakeholders at all levels, from local to global, have to make special efforts to seize these opportunities for realizing the agenda. To use the new political space created by democratization and decentralization and exercise political voice, smallholders and the rural poor need to form more effective organizations. To strengthen capacity for policy implementation, countries have to identify the combination of demand-side and supply-side governance reforms that best fit their specific conditions. Institutional innovations are required to better coordinate the agriculture agenda across different sectors.

Sound agricultural development strategies require stronger capacity for policy analysis and evaluation, and a commitment to evidence-based policy making. And—as past successes show—using agriculture for development calls for vision and leadership.

The global agriculture-for-development agenda requires specialized institutions that have long-term support and commitment, such as the CGIAR and the standard-setting bodies. It requires cross-sectoral, issue-specific networks that can capture emerging opportunities and react quickly to emergencies. And it requires new mechanisms to ensure that the agenda is well coordinated and integrated into the overarching tasks of the 21st century. Those tasks include ending hunger and poverty, combating pandemic diseases, sustaining the environment, mitigatig and adapting to climate change, and providing security. The challenges in delivering on the international agenda are considerable. But in a global world and on a small planet, there is considerable mutual interest in supporting every country's agriculture-for-development agenda. Meeting those challenges is ultimately a matter of equity and justice between North and South—and between present and future generations.