

Module 1: Building Agricultural Policy and Institutional Capacity

For the public investments described in this sourcebook to be effective, it is essential to develop an enabling environment for pro-poor agricultural growth. Governments must provide public goods and establish supporting legal, administrative, and regulatory systems to correct for market failures, facilitate efficient operation of the private sector, and protect the interests of the disadvantaged. The role of the public sector is evolving, driven by trade liberalization and international agreements, and requiring new skills and analytical capacities. Investments should focus on public sector program and institutional reforms, adjustment lending, human resource development, and strengthening capacity of sector institutions, both public and private.

Rationale for Investment in Policy and Institutional Capacity

The World Bank's Rural Development Strategy identifies two important elements of successful poverty reduction—creation of an investment climate conducive to rural growth, and empowerment of the poor to share in the benefits of that growth. Investments in policy and institutional capacity are critical to ensuring that the public sector can effectively carry out its functions, which include coordination, participatory development of sector strategies, policy formulation, and allocation and monitoring of public investment in agriculture. These governmental functions seek to promote an environment conducive to private sector activity and competitive markets in socially acceptable ways (box 1.1).

Box 1.1 Key policies to promote a competitive agriculture

- **Macroeconomic**—ensure undistorted exchange rate policy, removal of implicit taxes and market barriers, nondiscriminatory taxation, macroeconomic stability, and government credibility.
- **Trade**—facilitate exports, participate in trade negotiations, reduce protection on import-substitute goods with relatively low and uniform tariffs, and remove nontariff barriers (while providing protection from acute price volatility).
- **Labor**—ensure agricultural employment meets core labor standards, especially with regard to child labor, hazardous work, and equal employment opportunities for women.
- **Competition**—reevaluate the role of marketing boards, promote competition in input markets, establish labeling regulations for grades and standards.
- **Environment/natural resource use**—establish sustainable management, internalize externalities where possible, and develop markets for pollution and carbon credits.
- **Land**—develop land markets, security of tenure, titling and recording of land transactions, and land reform for fair distribution of land ownership.
- **Technology**—maintain public good research activities and foster private sector participation in research and extension.
- **Welfare and food security**—establish social safety net programs to cope in times of extreme price changes and natural disasters.

Source: World Bank 2003

Public policy is anchored in a set of values defining societal goals and a set of beliefs about the best way of achieving those goals. Institutions are the rules, enforcement mechanisms, and organizations supporting market transactions. Institutions help transmit information, enforce property rights and contracts, and manage competition in markets, thus giving people the opportunity and incentives to engage in fruitful market activity. Together, public policy and institutions create the enabling environment in which markets guide the allocation of resources for efficient outcomes. Although specific policies relevant to various subsectors within agriculture (for example, land administration, natural resource management, and agricultural research) are addressed throughout this Sourcebook, the means by which policy is established, and the structure of the institutions devised to do this and to promote overall sector growth, are addressed here.

Past Investments

Support for policy and institutional development in the agricultural sector has evolved dramatically. In the 1970s and 1980s, much investment went to building state organizations to manage agricultural development programs. Ministries of agriculture, often starting with very limited capacity, expanded their range of agencies and programs, many of which attempted to supply inputs, credit, and services directly to producers and to purchase and market agricultural products. Some of these public sector investments had high payoffs. Now, however, the economic returns to many of these investments (such as large-scale irrigation) are lower, and some interventions (such as subsidies) are very costly in terms of the distorting effect that they have on domestic markets.

The failure or lack of sustainability of many programs caused the state's role in the agricultural sector to be reconsidered. This process led to a surge in adjustment lending (that is, lending to support policy and institutional reforms conducive to growth) by the World Bank in the 1980s, when such annual lending averaged over US\$900 million. From 1990 through 2003, Bank agricultural adjustment lending totaled US\$5 billion. In FY04 it was US\$180 million, and in FY05 US\$218 million.

Although adjustment lending and associated policy and institutional reforms have significantly influenced the development of public policies for the agricultural sector, the reform process is not complete in many countries. Second-generation policy adjustments are needed in many cases, and the capacity to implement many of the reforms effectively is lacking. Rapid changes in global markets and technology make it imperative for the public sector to renew its focus on correcting persistent market failures,¹ efficiently providing core public goods,² establishing the supporting systems that encourage private initiative and investment, and protecting the interests of the poor (box 1.2).

¹ Market failure relates to high levels of risk and ineffective insurance markets, presence of economies of scale and indivisibilities, positive and negative externalities, and distributional inequalities. Governments must act to correct such failures only where interventions resulting in government failure are not worse than the original market failure.

² Public goods are defined as those for which private suppliers cannot fully appropriate the benefits of their initiatives—they are nonrival (meaning that one person's consumption of a good or service does not reduce its availability to others) and nonexcludable (meaning that individuals cannot be excluded easily from

Box 1.2 Payoffs to public investment

Public investment reduces rural poverty through improved growth in agricultural production, agribusiness development, rural nonfarm employment, lower food prices, and migration. While there are often long time lags between investment and visible impact, investments in agricultural research, education, and rural infrastructure are often the most effective in promoting agricultural growth and poverty reduction (see table). Regional analysis within India also suggests that public investment in less-favored areas not only offers the largest poverty reduction per unit of spending but also leads to the highest economic returns.

Returns of agricultural public investments and impacts on poverty reduction in China and India

	Economic returns ^a		Returns – poverty ^b	
	China	India	China	India
R&D	9.59	13.45	6.79	84.5
Irrigation	1.88	1.36	1.33	9.7
Roads	8.83	5.31	3.22	123.8
Education	8.68	1.39	8.80	41.0
Electricity	1.26	0.26	2.27	3.8
Poverty loan	n.a.	1.09	1.13	17.8

a For China, yuan total rural GDP/ yuan exp.; for India, rupee per rupee spending.
b For China, no. poor reduced/10,000 yuan exp.; for India, no. poor reduced/million rupee exp.

Source: Fan, Zhang, and Zhang 2002

Over the past decade, “good governance” has increasingly been recognized as key to sustainable development and poverty reduction. Good governance is reflected in a capacity for analyzing policy options and the capacity for implementing policies and programs with transparency and accountability. The speed and impact of improvements in governance has been less in rural areas because of lower levels of education, lower qualification of civil servants, and more deeply ingrained traditions of paternalism. The effectiveness of public sector institutions in promoting pro-poor agricultural growth is also hampered by the fact that many different ministries or agencies often operate within the sector (for example, public works, water resources, trade, and environment), each with a high degree of centralization.

Key Issues in Policy and Institutional Capacity Development

The new generation of investments in policy and institutional reform will likely be more challenging than past investments. Emphasis must be placed on actually implementing reforms and on fine-tuning them to suit local situations and evolving market conditions. The requirement for high-quality information and analysis to support policy formulation and investment is now greater than before, and there is a critical need to learn from experience, through improved monitoring and evaluation of policy impacts.

Changing role of government. Many public sector institutions are oversized and overly centralized. Although they may (arguably) have been effective in the past, they are now

consumption). Interventions relating to goods that are undersupplied because of positive externalities (for example, agricultural research and roads) differ from interventions where economies of scale and natural monopolies create a rationale for public investment (for example, irrigation and rural electrification).

inappropriate to their new roles. Many public sector agencies are still involved in areas where the private sector would be more efficient (for example, marketing and input supply), but they lack the capacity and incentives to intervene effectively to promote the private sector. The *privatization* of noncore public functions and *decentralization* of remaining programs and governance systems are critical to fostering market development and agricultural growth. The role of government has shifted toward being more of a coordinator that develops and enforces the rules by which private sector participants interact within market arenas. This change, however, requires considerable capacity to formulate and implement policies to promote market development and coordination, and create capacity to respond to markets. Although current development strategies provide for increased private sector leadership and a declining role for the public sector, the *quality* and *efficiency* of public sector institutions and policy are increasingly important to the emergence of a modernized and competitive agriculture. The major priorities are to:

- Support implementation of unfinished reforms, such as reducing public sector bureaucracies, privatizing state corporations, and devolving programs to lower levels of government for more efficient implementation.
- Formulate coherent national agricultural development strategies and innovative sector development programs.
- Develop mechanisms for producers and the private sector to participate in policy and program formulation and implementation through public-private partnerships.
- Develop capacities and institutions for government to carry out regulatory, information, policy, and negotiation functions to promote efficient markets and respond to international agreements and standards (box 1.3).

Inter-ministerial collaboration. The development and implementation of policies affecting the agricultural sector increasingly depend on ministries and agencies outside of the agricultural ministry, including those dealing with public finance, food security, trade negotiations, natural resource management, and science and technology. An effective strategy for pro-poor agricultural development must necessarily seek to strengthen linkages and communication between the range of public agencies with a stake in agricultural development (for example, environment, land, labor, finance, industry, and trade ministries). The large number of private sector interests involved across these areas complicates this effort. Thus the government must adopt a *coordinating* role whereby it encourages, ideally through incentives rather than regulations, cooperation among ministries, agencies, and the private sector, and it fosters a comprehensive approach to cross-sectoral issues. This coordinating role must extend into the regional and international arenas in which agreements related to agriculture increasingly are made.

Box 1.3 Typical regulatory requirements of a modern agricultural and food system

- Legal and business regulation (with low costs of compliance for doing business), transparency, adjudication of contract disputes, contract enforcement, market regulation.
- Food safety regulations and standards (especially in processing facilities) and testing for contamination (including microbial) and chemical residues.
- Protection of natural/environmental and common property resources (waterways, forests, air, fauna) and management of land and water use, including tenure administration.
- Biosafety regulation with respect to genetically modified organisms, pest and disease control and appropriate quarantine border measures, and agricultural biodiversity preservation.
- Intellectual property rights (IPR) regulations to provide incentives for innovation, enforcement of IPR laws and patents, balancing security of property rights with technology accessibility for smallholders.
- Verification and certification of seeds and plant propagation materials and registration and regulation of agrochemical use.
- Inspection services and issuance of phytosanitary certificates, and verification and certification that products satisfy relevant grades and standards.
- Labeling requirements and their enforcement.

Source: Authors

Public-private partnerships. It is now clear that more efficient outcomes can generally be achieved if the private sector is involved in the provision of public services. Many government functions can be contracted out to specialized private sector firms and nongovernmental organizations (NGOs) under competitive bidding. Governments can also partner with the private sector, including producer organizations, NGOs, and trade associations, in areas such as policy formulation, food safety regulation, and the provision of infrastructure.³ Other functions that need to be performed by the public sector are often better accomplished if the agencies are organized as financially autonomous entities, capable of securing much of their funding through the recovery of costs from users. This is typically the case with “toll goods” and “natural monopolies” such as land registration and titling bureaus, some phytosanitary services, plant variety and agrochemical registration, plant variety protection, and seed certification. The financial viability of these public service entities requires that commercial and social objectives be kept separate and distinct. Where full cost recovery may exclude the poor from a particular service, graduated fees or targeted voucher systems for the needy can be introduced. These approaches will require a transparent definition of eligibility and a system that can be readily implemented.

Multiple goals for the sector. The formulation of public policy requires difficult choices (given limited resources) among alternative (and often competing) priorities. Ministries of agriculture traditionally have focused on food production and self-sufficiency. This focus must be broadened to include poverty reduction and environmental concerns. Food

³ See innovative activity profile(IAP): “Guinea: Livestock Sector Partnership—Public Sector Herder Organizations and the Private Sector.”

security will remain an objective, but with greater concern for improved access by the poor to a variety of safe and nutritional foods (box 1.4). Increased employment and income opportunities, complemented by better market integration and more effective and targeted social safety nets, are needed for poverty reduction. Broad-based growth led by the private sector is often the most effective means to reduce poverty. Public expenditures must support the provision of core public goods to promote private sector investment, but in ways that are focused more sharply on addressing the needs of the poor. Also, environmental considerations are an increasingly important element of agricultural development initiatives, and policies and institutions must provide a basis for valuing natural resources used in agricultural production, internalizing environmental costs and benefits in production systems, and developing markets for environmental services.

Box 1.4 Food security, safety, and quality

Food security depends not only on whether a sufficient *supply* of food is available at the national level, whether domestic markets function adequately to *distribute* this supply over time and space, and whether households can *afford* the supply available on domestic markets, but also on the provision of *safe* food of acceptable *quality*—because, at the individual nutritional level, food quality and safety interact so strongly with health status. Potential investment areas for food safety and quality include:

General:

- Policy analyses and food chain diagnostic studies.
- Nutritional surveillance studies.
- Food fortification or supplementation programs.
- Promotion of micronutrient-rich foods.

Export focused:

- Developing laboratory capacity (for residue testing and biological agents, for example).
- Strengthening capacity for food inspection, auditing, and certification.
- Training, risk analysis, and systems for product traceability.
- Information on export market import standards.

Domestic market focused:

- Investments in water and sanitation.
- Hygiene training for street food vendors.
- Plant and animal quarantine infrastructure.
- Vaccination programs against livestock diseases.

Source: Authors

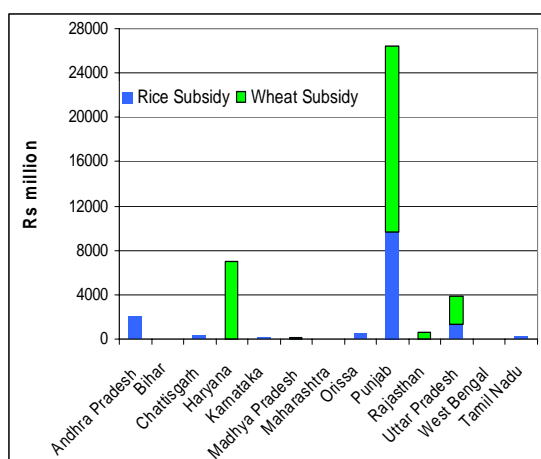
Reform of subsidies. Despite the fact that rich countries continue to maintain trade-distorting subsidies, developing countries must review their agricultural support policies (price supports, border protection, and subsidies) with a view to improving sector efficiency and equity. Subsidies on inputs create disincentives to use scarce resources efficiently (for example, subsidized irrigation water), may have environmental costs (for example, pesticide subsidies), and draw scarce resources away from high payoff public investments, such as agricultural research and infrastructure. Numerous studies have shown that subsidies are disproportionately captured by the largest producers and do not meet the social equity objectives often used for their justification (box 1.5). Finally, in the

longer term, subsidies may undermine competitiveness, since they typically become capitalized into land values, raising producers' production costs. Because subsidies generally create strong vested interests, removing them is often difficult, and producers may require some kind of transitional support so that they have sufficient time and resources to adjust to changed conditions. Countries that have made this transition successfully have achieved a more dynamic and competitive agricultural sector (box 1.6).

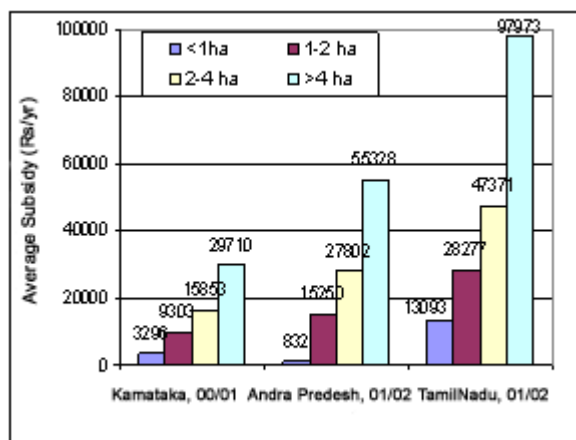
Box 1.5 India: who wins and loses from agricultural subsidies?

Rationalizing public expenditures to foster more rapid agricultural growth in India is a major challenge. Subsidies on agricultural inputs and price support for rice and wheat dominate government expenditures, crowding out investments that could do more to enhance productivity. In 1999/2000, subsidies accounted for about 3 percent of total GDP (foodgrain subsidies, 0.5 percent; fertilizer, 0.7 percent; power for agriculture, 1.3 percent; and surface irrigation, 0.5 percent), while public investments in agriculture amounted to only 0.4 percent of GDP. These subsidies contribute to rising fiscal deficits in the central government and the fiscal crises in many state governments. Rice and wheat price support benefited only a few (richer) states and larger-scale farmers in those states; similarly, large-scale farmers receive a disproportionate share of input subsidies (see figures and table). These input subsidies also contribute to increasing natural resource degradation in many areas, including overexploitation of groundwater and waterlogging in surface irrigated areas.

Distribution of foodgrain subsidies by state



Distribution of power subsidies by farm size



Price support transfers to producers, 1998

State	Transfer per rice producer (Rs/household)					Transfer per wheat producer (Rs/household)					
	All	Marginal ^a	Small ^b	Medium ^c	Large ^d	State	All	Marginal ^a	Small ^b	Medium ^c	Large ^d
Punjab	3,041	799	1,674	3,094	7,556	Punjab	9,980	2,210	5,094	9,761	26,752
Andhra Pradesh	164	54	186	339	621	Haryana	5,794	2,236	3,597	6,547	14,705

Note: Price subsidy = (minimum support price – cost of production) x procurement volume.

a Marginal farmers own less than 1 ha of land.

b Small-scale farmers own 1 to less than 2 ha.

c Medium-scale farmers own 2 to less than 4 ha.

d Large-scale farmers own 4 or more ha.

Source: World Bank 2005

Box 1.6 New Zealand: benefits of unsubsidized agriculture—an OECD example

Protection and subsidies often constrain growth and competitiveness of the agricultural sector. During the mid-1980s, producer support in New Zealand accounted for about 40 percent of farmer income. The fiscal unsustainability of these subsidies, loss of preferential access to British markets, and spiraling inflation pressured the government to abandon most support payments. Deregulation was rapid (nearly all subsidies were removed in 1984) and substantial (almost 30 different subsidies and export incentives were removed, and no industry continued to receive preferential treatment). Around one percent of New Zealand's farmers exited agriculture, with the help of a one-time exit grant valued at approximately one-third of annual income.

Since the late 1980s, agricultural output has grown by more than 40 percent, the rate of productivity growth has increased almost six-fold, the share of farming in gross domestic product (GDP) has risen from 14.2 to 16.6 percent, and the share of rural population has remained constant. Reform prompted greater competition, lower input costs, adoption of practices that were more environmentally sustainable, and a more diversified and adaptable sector responsive to market needs.

Source: World Bank 2003

Lack of technical and human capital. Governments often lack the skilled staff, equipment, and management tools to implement complex programs efficiently. A chronic lack of funds for in-service training, combined with persistent traditional attitudes with regard to training, have deprived public servants of knowledge and skills to design and manage interventions for a sector in which the private sector is in the lead. Past institution-building efforts often failed in part because of low government salaries and poor incentive structures. The result was a “revolving door” syndrome in key ministry units as the best-trained staff left for the private sector or international employment. Critical elements of future reforms and institutional development are (1) the ability to build and retain the necessary qualified human resources (with skills in areas such as marketing and management) and (2) the ability to build incentive systems to staff the institutions that formulate policy. Development of these human resource capabilities must also take into account the future needs of private sector agencies, such as producer groups, agribusiness associations, and commodity chain consultative groups.

Building capacity in public expenditure management. In many countries, capacity to manage public expenditures (both budget formulation and execution) is especially weak in ministries of agriculture. Efforts must focus on strengthening capacity for formulating and costing policy, using results-oriented budgeting, managing how budgets are implemented, monitoring and reporting, and developing mechanisms for stakeholder participation and interfacing with donors. Building capacity for the development of medium-term expenditure frameworks is critical for translating Poverty Reduction Strategy Papers (PRSPs) into public expenditure programs and ensuring that agricultural sector priorities are reflected in the implementation of PRSPs and related programmatic assistance.

Future Priorities for Investment

Future investments in policy and institutional capacity require sustained efforts over a considerable time to develop stable and competent public sector institutions to support market development and address market failures. The level of financing required for these initiatives will often be quite modest, but continuity of support is critical.

Developing and implementing an agricultural strategy. A comprehensive agricultural sector strategy is essential as a basis for investment for pro-poor growth. Such a strategy might form part of a broader rural development strategy or PRSP, but it will usually need to be developed in greater detail as a stand-alone agricultural strategy document. In providing a “vision” for the future role of the sector, strategies should focus the efforts of donor organizations and governments on the most relevant problems and solutions, and they should ensure that initiatives are complementary rather than conflicting. Translating strategic priorities into budgetary allocations is often more difficult than formulating sector strategies. Budgetary allocations must be well planned and based on revenue expectations as well as realistic estimates of the funding needs for different policy priorities. The sequencing of funding allocations is also important. Budget allocations are, of course, largely within the responsibility of ministries of finance. However, good analysis and effective information systems within the agricultural sector, backed by competent policy staff with good presentation and negotiating skills, are important for promoting public investment in agriculture and improving investment quality.

Building policy and negotiating capacity. Developing and maintaining adequate policy formulation, implementation, and analytical capacity has been a recurrent problem in most countries. Retaining well-trained economists is especially important for policy formulation and analysis, since they often find attractive employment opportunities outside of government service. Although there is no easy solution to the problem of retaining qualified economists, a common solution is for governments to contract out policy research to universities, consulting firms, and research foundations and to undertake joint analyses of policy implications with relevant stakeholders. Even so, ministries of agriculture still require a core capacity to tap available policy research, contract with outside institutions to fill research gaps, and analyze research output for use in the policy-making process.

A related need is to develop the capacity to participate in negotiations at regional or global levels—for example, the ongoing Doha Development Agenda negotiations under the auspices of the World Trade Organization (WTO)—and effectively represent the needs and concerns of domestic producers and citizens. Such negotiations include trade, the environment, grades and standards for market entry, intellectual property issues, foreign investment, and negotiation with donor agencies (box 1.7). Donor agencies can provide technical assistance and training in these areas so that public officials can evaluate potential negotiating positions and their likely implications for various groups, with particular emphasis on the poor and vulnerable.

Box 1.7 International agreements related to agriculture

The international community, through a variety of international agreements, has addressed many

issues facing the agricultural sector. The countries that are signatories to these agreements are required to implement their provisions. Some key agreements, conventions, treaties, or protocols that affect agriculture include:

- International Plant Protection Convention (1951)
- International Code of Conduct on the Distribution and Use of Pesticides (1985)
- International Code of Conduct for Plant Germplasm Collecting and Transfer (1993)
- World Trade Organization (WTO) Agreement on Agriculture (1995)
- WTO Trade Related Intellectual Property (TRIPS) Agreement (1995)
- Code of Conduct for Responsible Fisheries (1995)
- United Nations Convention to Combat Desertification (1996)
- World Food Summit: Rome Declaration and Plan of Action (1996)
- Cartagena Protocol on Biosafety (2000)
- Stockholm Convention on Persistent Organic Pollutants (POPs) (2001)
- International Treaty on Plant Genetic Resources for Food and Agriculture (2001)

Negotiations continue on a number of outstanding issues, involving such areas as subsidies and market access for agricultural trade (WTO), market standards, and biotechnology (in the Codex Alimentarius Committees of the Food and Agriculture Organization and World Health Organization). Governments, the private sector, and civil society need to understand the implications of agreements on these issues, possess the institutional capacity to implement their provisions, and possess the ability to formulate and present views in future negotiations.

Source: WEHAB Working Group 2002

Reforming agricultural ministries. Ministries of agriculture are often inefficient and very conservative, and they may resist the devolution of traditional core functions. Past investments in public institutions resulted in substantial (“overdimensioned”) bureaucratic structures, requiring substantial recurrent cost financing. The reform of a single ministry is often difficult, unless it is carried out within the context of structural reform of the entire civil service system or at least of the ministries dealing with the agricultural sector (box 1.8). Reform is likely to be a long process, and political changes can easily wipe out progress, requiring a new start on reforms. A bottom-up effort that builds a base and constituency for ministry reform among key stakeholders is important.

Box 1.8 Tanzania: reform of the Ministry of Agriculture

Prior to the Agricultural Sector Management Project in Tanzania, the Ministry of Agriculture was overloaded with tasks for which it was ill suited. Reforms helped state agricultural institutions to manage less, but better, in support of a market-based economy. The government’s role in the agricultural sector was better defined, enabling the ministry to focus on three major tasks—policy formulation and planning, development and provision of services in partnership with the private sector, and regulation and inspection. Reform entailed divestiture of many parastatals, spinning off services of a commercial nature to the private sector, and reducing staff within the ministry. Staff skills were upgraded through on-the-job training and higher education overseas, and agricultural information systems were strengthened to support a market-based economy. Since reforms had implications beyond agriculture, other ministries were actively involved.

Source: World Bank internal documents

Strengthening statistical and information services. The quality of agricultural data systems is thought to have declined in many countries in recent years, along with declines in ministry of agriculture budgets for these systems. Good information is an essential base for sound policy formulation and for guiding investments by both the public and private sectors.⁴ Agricultural censuses, production and yield surveys, and market information systems can improve the decisions of governments, producers, and agribusinesses. Market information systems are especially important to efficient operation of the private sector.

Wide dissemination of information is particularly important for maximizing the benefits of data collection and to ensure equitable access to information on production and markets. New information and communications technologies (such as Web portals) can help improve the quality, dissemination, and cost-effectiveness of data collection. Although there is a significant public good element in such systems, a portion of the costs may be recovered from the private sector.

Facilitating adjustment and managing risk. A pressing issue in many countries is to assist producers to adjust to market and trade liberalization—events that affect prices (and so change competitiveness and profitability among industries) and affect risks faced by farmers. Farmers (especially small-scale farmers) may require government assistance to make the transition to other enterprises in which they have a comparative advantage, or in some cases to exit agriculture altogether.⁵ In some circumstances, income support programs can be helpful but must be “decoupled” (that is, not paid on the basis of current input use, output, or prices) so that they do not distort production. Similarly, market-based risk management systems for commodity prices and modern information and communication technologies have potential to help producers to cope with risk during the transition.

Decentralizing programs and authority. Decentralization is commonly promoted as a means of empowering agricultural producers by enabling local participation in the decision-making process. It is expected to lead to more responsive and locally applicable policy decisions. Although there can be a trade-off between greater local government authority over expenditure and potential misuse of funds, financial responsibility is an important element of effective decentralization. If local governments and private organizations are to carry out decentralized functions effectively, they must have adequate revenues, either raised locally or transferred from the central government, and they must have authority to make decisions about expenditures (that is, political decentralization). While local governments have a role in providing “local” public goods, there are also many “national” or “regional” public goods that local government will not have the technical capacity or interest to address.

All decentralization reforms need to recognize the limits of local government activity. Public investment will be necessary to develop the capacity of local governments and

⁴ See the IAP, “Ecuador: Commodity Chain Consultative Councils for Policy Formulation.”

⁵ See the IAP, “Turkey: Hybrid Adjustment/Investment Lending.”

assist them in formulating coherent and effective strategies and programs for decentralization. This effort can be difficult, given the large number of (often small) local governments and the frequency with which they change. In addition, provision of many agricultural services (for example, technical advisory services) is in many cases the domain of user groups, farmer organizations, and trade associations. These groups may have different interests and priorities from those of local government, and agreements about how responsibilities are divided can be highly effective.

Developing participatory systems. Participation enhances stakeholders' influence and control over priority setting, policy making, resource allocations, and access to public goods and services. This involvement in turn improves government accountability and transparency, and it increases the overall governance and economic efficiency of development activities. Rural producer organizations can be central to a participatory system for agricultural decision-making, but frequently they must make a transition from being passive recipients of government assistance to being independent institutions that develop their own policies, programs, and strategies and negotiate with the government as equals. At the same time, initiatives to support the development of such groups must do so in a manner that avoids the potential for any one group (or a number of powerful individuals within the group) to pursue narrow agendas at the expense of other groups (or other individuals within the group). Agribusiness trade associations, often participating in commodity chain or marketing chain interest groups, are other key stakeholders with interest and influence in the sector. The public sector should explicitly seek to develop alliances with such groups and build a strong constituency for agricultural institutions, but in ways that avoid special interest subsidies and protection.

Scaling Up Investments

Improving policy and institutional capacity is critical for designing and implementing sound programs for pro-poor agricultural growth. Some indicators for monitoring the extent of progress in this area include:

- Existence of a sound agricultural sector development and investment strategy.
- Level of private investment in agriculture and agribusiness, and surveys of the investment climate for private investors in the sector.
- Extent and quality of rural producer organization and agribusiness association input into agricultural policy formulation and program design and implementation.
- Availability and quality of statistical information on the agricultural sector, agricultural production, and markets.
- Effective regulatory systems for emerging areas such as food safety, biosafety, intellectual property rights, and phytosanitary standards.
- The extent of liberalizing support and protection policies for agriculture.

Analytical work and policy dialogue are especially important to assess the needs for policy and institutional capacity building and to prepare investment proposals prior to scaling up.

Selected Readings

Asterisk (*) at the end of a reference indicates that it is available on the Web. See Appendix 1 for a full list of Websites.

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Preparing a National Agricultural Development Strategy

An effective agricultural development strategy (ADS) is critical for identifying the key issues and opportunities facing the agriculture sector and for developing operationally sound programs to promote pro-poor growth. Strategies must provide a "vision" for the future role of the sector and set forth the policy framework and investment priorities needed to achieve this vision. Key areas for support include (1) building the human and institutional capacity for strategic analysis and planning and (2) establishing a participatory, consultative process to articulate an ADS that can result in real progress for the sector.

Too many countries continue to invest in agricultural development without a clear overall strategy. Central planning of agricultural production seldom worked in the past and is largely discredited. The role of government in promoting economic growth and development has changed with the increased importance of private sector investment in agriculture. Even so, this change does not mean that the government can abdicate its role in promoting agricultural development, and unless this role is clearly defined, the payoffs from investment in the sector are likely to be less than satisfactory.

What Is an Agricultural Development Strategy?

An ADS is a roadmap to assist governments, civil society, and donors in defining interventions to meet key objectives for the agricultural sector—typically including improved productivity and competitiveness, reduced rural poverty, enhanced household food security, increased capital accumulation by poor rural households, and more sustainable management of natural resources. Such articulation of strategy does *not* imply central planning but rather an analysis of the options and priorities for government in promoting sustainable agricultural sector growth. An ADS is both product and process. As product, the written document serves to focus and facilitate the process. The strategy combines analysis, process, and required action, and it usually has several elements:

- A snapshot of the current status of the agricultural sector, which, depending on the state of existing knowledge, may involve new economic and sector analysis, perhaps involving formal models such as those discussed in the final section of this note.
- A national vision of agriculture within the time frame of a generation.
- A diagnosis of the key constraints that prevent the agricultural sector from achieving the vision, and an analysis of the main opportunities, inevitably requiring new analytical studies and likely involving modeling of growth processes.
- Action plans for implementing the vision, including assignment of responsibilities and estimation of costs, and a comprehensive program of monitoring and evaluation to measure costs and benefits and to understand any required revisions.

Developing an understanding of agricultural production and marketing systems and their sources of vulnerability can be a challenging task, particularly if it involves considering mechanisms to help people leave agriculture, as in contemporary China. Common problems include insufficient time for broad consultation; gaps in the required knowledge base, particularly concerning reliable data on poverty in agroecological and local government areas; problems with in-country expertise; and lack of political and/or bureaucratic champions.

Benefits

Effective processes for preparing an ADS rely on intensive fact-finding, diagnostic studies, analyses, and program monitoring, evaluation, and impact assessments. An ADS will present combinations of policies and programs around which stakeholders can form a consensus and mobilize the resources that are needed (box 1.9). This process helps to identify political champions for reform, and it can promote the interchange of experiences among practitioners to learn what works and what does not work in sectoral institutions, programs, and markets. Overall, an ADS can focus efforts in ways that reduce the duplication of projects and conflicts among different initiatives, and it can enhance collaboration among stakeholders (including donor agencies, governments, the private sector, and farmer and community organizations).

Box 1.9 Uganda: plan for modernization of agriculture

To raise agricultural growth rates, the Government of Uganda developed a Plan for Modernization of Agriculture through a broad-based consultative process. This plan is part of Uganda's broader strategy, which is defined in the Poverty Eradication Action Plan (PEAP). The plan has been used as an important input into the country's Poverty Reduction Strategy Paper (PRSP) and subsequent Poverty Reduction Support Credits (PRSCs), in which agriculture has high priority. A focus point of the plan is the transformation of subsistence agriculture to commercial agriculture to accelerate growth through technical change throughout the sector. Priority areas for action are research and technology development; agricultural advisory services; rural finance; agroprocessing and marketing; agricultural education; sustainable natural resource utilization and management; and supportive physical infrastructure, particularly roads. The plan provides a strategic and operational framework for sustainable agricultural transformation, but it does not provide a detailed plan for action. It describes the types of policy interventions required to promote agricultural and rural development and defines the roles of the public sector, the private sector, and civil society in this process. Prioritized actions have been included in the PRSCs that have continued to support implementation of the PEAP.

Source: Government of the Republic of Uganda 2000

Policy and Implementation Issues

Agricultural and rural development strategies. There is now a recognition that rural development is broader than agricultural development, involving substantially more attention to social, off-farm, and infrastructural investments. While an ADS can be developed as a component of a Rural Development Strategy, there is a trade-off between the benefits of approaching agriculture as part of the larger rural picture and the potential

problems of coordination and dilution of focus in analyses and planning. The development of a stand-alone ADS can be a preferred option, although increasingly this kind of strategic work constitutes part of a broader effort—for example, preparing or updating PRSPs (as noted in box 1.9), updating Country Assistance Strategies (CASs) (typically every three years or so), or supporting other national efforts, such as Nigeria's recent National Economic Empowerment and Development Strategy (World Bank 2004).

Agricultural strategy as process. The process of forging an ADS shapes its design, its chances of being implemented, and its likely development impact. Hallmarks of a successful process are:

- Strong political and administrative leadership at central and local levels.
- A strategic document identifying desired outcomes of decentralized agricultural development programs, specifying timetables, budgets and responsibilities.
- Consensus building and ownership of a vision of agricultural development by policy makers, sector stakeholders, and the development community.
- Mobilization of institutions and partnerships at different levels and in different sectors to implement the ADS.
- Broad local participation in regular monitoring, and an understanding of the likely impact on those who will benefit and those who may lose.

Country leadership. The country must take the lead in analysis and strategy formulation, but it can benefit from external support, especially through sharing experience from other countries and regions.

Time frame and macro context. Agricultural development is a long-term process, involving institutional change, market development, and technological adaptation. The time horizon for an ADS should be about five to ten years, with an expectation that it will be revised and updated every few years, depending on the changing situation. Elections and changes in government are important factors affecting timing for strategy preparation. As changes are not always predictable, the preparation of strategies should seek commitments across the political spectrum. Since macroeconomic crises often accompany adjustment lending, practitioners should be made aware of the need and rationale to focus on high-quality fiscal adjustment measures in agricultural spending in order to protect agricultural growth. Monitoring the effects of exchange rate adjustments on agricultural terms of trade can lead to useful identification of policy problems and corresponding recommendations.

Multiple ministries. Many issues within a broad concept of "agriculture" (for example, irrigation, livestock, food, trade, input supply, agroindustry, and agricultural education) are often the responsibility of different ministries. It is critical that intersectoral linkages and interactions (for example, macroeconomic policy and agricultural trade policy) are appropriately accommodated. Strong participatory leadership skills and good coordination are necessary to produce a single strategy with support across a range of ministries. In the context of PRSP preparation and PRSC implementation, such support is usually more readily facilitated than has historically been the case.

Lessons Learned

Develop baseline information. A snapshot of the current status of agriculture is critical at the onset of the process, and it should include details and data such as those listed in box 1.10.

Identify key constraints and opportunities. Constraints in this context are factors that impede improved sector performance. Opportunities are strengths that can be built upon to improve performance. These relate to policies, institutions, governance, public investment programs, and the sociopolitical environment (box 1.11), and they are well illustrated in World Bank (2005) for India, for example.

Develop actions to overcome constraints and tap opportunities. This section of the ADS will usually contain recommended actions in policy reform, institution building, decentralization, and investment in infrastructure and human capital. Proposed actions should be based on worldwide experience of both success and failure.

Implementation and monitoring. Implementation requires translating broad strategic directions into institution-, budget-, and region-specific action plans; focusing on the issues raised in an ADS; mobilizing the financing for projects and programs; building institutions; and mainstreaming agricultural development in national plans. Monitoring development impact is an integral component of an ADS, because it enables built-in flexible and effective response in the course of implementation.

Box 1.10 Key snapshot data

Profile of the agricultural population

- Number of farms and farmers by farm size, land use and tenure status.
- Agricultural laborers and wages.
- Agribusinesses by size, type, and profitability.

Public sector investment programs

- Density and state of rural roads, public markets, and agricultural extension services.
- Adult literacy rate: overall, male, and female.
- Share of agricultural value invested in research.

Agricultural production systems

- Major agroclimatic zones and soil types (map).
- Irrigated (surface and ground; large-, medium-, and small-scale) and rainfed.
- Farmers' organizations, NGOs in the sector.
- Agriculture's share of GDP, employment, import, and export.
- Major markets (domestic and foreign).
- Indicators of productivity and comparative advantage.
- Details of sectoral protection and taxation.

The natural resource base

- Systems for managing the natural resource base.
- Trends in resource base change.
- Frequency of natural calamities.

Source: World Bank internal documents

Box 1.11 Illustrative data reflecting constraints and opportunities

Policy

- Nominal/effective protection coefficients and resource-cost estimates for selected agricultural commodities.
- Subsidies on agricultural resources and inputs.
- Food security and welfare policy.

Institutional

- Price variability and postharvest losses for selected commodities.
- Methods available for managing price risks.
- Land tenure and ownership structure.
- Legal and regulatory environment (for example, contract enforcement).
- Technology generation and transfer systems.

Governance

- Degree of fiscal decentralization.
- Percentage of marketed inputs/outputs managed by public organizations.

Public investment programs

- Investment in basic rural infrastructure.
- Investment in agricultural research and extension.

Sociopolitical (in qualitative terms where applicable)

- Constraints on specific groups.
- Hidden costs of doing business.

Source: World Bank internal documents

Recommendations for Practitioners

Recommendations for practitioners involved in investments (box 1.12) related to preparing agricultural strategies include:

- Develop a vision for agriculture that is shared broadly by stakeholders, with input from farmers themselves (expressed through farmer and community organizations), local government, NGOs, and others. Such a vision expresses what a strategy is designed to achieve without reverting to the overly specific, often centralized, planning targets of the past. The vision should be specific enough to guide public policies and programs and allow monitoring by tracking defined indicators to assess progress.
- Draw from global experience, but recognize the context-specific characteristics that will shape the relevance of such experience to the local setting. Having strong and committed "champions," both in national governments and in key donor and civil-society organizations, is critical to reaching early strategic agreement and focus.

- Seek support at all levels, as a national ADS necessarily involves multisectoral issues and engagement with a range of stakeholders concerned with agricultural development.
- In countries engaged in PRSP-like processes, link into the PRSP dialogue with government, private sector, and civil society representatives at national and local levels, so that there is broad consultation at all stages of formulating strategy.
- Examine the current status of agriculture to establish the facts about rural poverty and the systems of production within which the poor operate. Identify key constraints that impede improved performance and opportunities on which to build, and prioritize among actions for implementing the ADS.
- Exploit available models of the economy and the agricultural sector, or contemplate undertaking new modeling to better understand key inter-sectoral linkages and more realistically model growth paths implicit in the vision being addressed. The range of possible analytic models includes computable general equilibrium models, social accounting matrices, simplified growth models, and multimarket models. While some of these resources have been around for decades (see Tolley, Thomas, and Wong 1982; Timmer, Falcon, and Pearson 1983; Tsakok 1990; Belli et al. 2001), their guidance and insight can be highly relevant to the formulation of a sound ADS, and consequently refinement of such methods continues to be the focus of knowledge discovery—for example, in the Development Strategy and Governance Division of the International Food Policy Research Institute (IFPRI).
- Develop effective mechanisms for monitoring the ADS implementation and development impact.

Box 1.12 Potential investments

- Technical assistance for review of past experience and analysis of the current situation.
- Systems for gathering, processing, and storing data and information for ADS development.
- Technical assistance for developing approaches to ADS development that encourage and enable broad stakeholder participation.

Source: Authors

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Developing Capacity for Agricultural Sector Policy Formulation

Government policies and investment strategies provide a critical base for agricultural sector development, and governments need the capacity for such policy formulation. However, many developing countries lack the people and institutions needed for effective agricultural policy formulation. New efforts to build local capacity to promote agricultural development must take a broader view of the policy formulation process. The process should involve different stakeholders from the public and private sectors and civil society in collaborative relationships, partnerships, and networks to guide public policy and investment decisions in the agricultural sector.

Addressing objectives of rural poverty reduction, environmental conservation, food insecurity, and economic growth requires a supporting policy environment built on sound analysis, research, and formulation and dissemination of agricultural policies (see, for example, Stoeckel, Vincent and Cuthbertson 1989). Many developing countries lack the people and institutions that can provide this environment. Past capacity development efforts focused on investment in university-level education and short-term training of policy unit staff. New approaches advocate collaborative projects, partnerships, and networking (see Paarlberg 2005) to address the current situation, which is characterized as follows:

- Institutional capacity to conduct sound agricultural policy analysis, formulation, and dissemination is weak. Even when individual capacity exists in the country, there is a dearth of effective mechanisms to use existing capacity.
- Investments in capacity have not always been successful, especially in improving institutional capacity.
- The need for effective capacity for policy formulation is becoming greater, as global and regional change increases the challenges to the agricultural sector and as arguably more participants (the public sector, private sector, and civil society) are now involved in developing this capacity.

Public Policy Formulation and Planning

Capacity for policy formulation can refer to individuals, organizations, or a country as a whole. For investment purposes, the main focus is likely to be on organizations in the public sector (for example, policy units or public research organizations), private sector (universities, trade and farmer associations, or consulting firms), and civil society (NGOs or institutes). The “capacity” of an organization refers to its ability to apply its skills and resources successfully to accomplish its goals. Capacity development is a process of improving an organization's performance by increasing its potential in terms of its resources (human resources skills, infrastructure, finance, and technology) and management (program and process management, strategic leadership, and networking and linkages). Capacity for agricultural policy includes capacity for policy analysis, policy formulation, and policy dissemination.

The balance of resources (infrastructure, technical, and financial) and technical and managerial skills needed for policy formulation should be guided by external factors (the political, social, legal, and cultural context) and internal features (culture, incentives, and management style) of the relevant organization. While most projects focus on the capacity of government agencies, the private sector (including producer organizations) and civil society need capacity to participate in policy debates (capacity for policy communication, public awareness, and negotiating skills).

Benefits

Improved policy research can reduce the wasteful allocation of resources, increase incomes of farmers and enterprises, better target the disadvantaged, improve farmers' access to services and infrastructure, accelerate policy reforms, and improve the success of policy reforms (box 1.13)—but not always, or necessarily, as the experience of IFPRI in Malawi has shown (Ryan 1999b). Further, the improved communication among stakeholders associated with increased capacity improves negotiation and helps enhance transparency and ownership of adopted policies, resulting in more likelihood of success in implementation.

Box 1.13 Bangladesh: collaborative research and capacity strengthening

Capacity strengthening in food policy analysis was one of the four main components of the Bangladesh Food Policy Project funded by the United States Agency for International Development (USAID) and implemented by the International Food Policy Research Institute (IFPRI) in collaboration with the Ministry of Food between 1989 and 1994. The policy analysis during the project estimated the inefficiency and costs of the food-targeted programs and enabled the government to abolish the food rationing system, reinforce its Food for Work and Vulnerable Group Feeding Programs, and introduce the new Food for Education program. Estimates of the internal rate of return for food policy research investments ranged from 110 to 260 percent. Other impacts included a savings of about US\$60 million per year (from abolishing ineffective targeted programs) and increased school attendance of poor children (an increase of 27 percent for boys and 31 percent for girls). Studies were completed in a collaborative fashion with local organizations. The project strengthened the technical and analytical capabilities of local institutions and showed that capacity-strengthening activities, strategically tied to information sharing, increase the acceptance and adoption of research results.

Source: Babu 1999; Ryan and Meng 2004

Policy and Implementation Issues

Sustainability. Various factors explain the lack of sustainability of past investments in capacity development. First, the long-term nature of capacity development requires a multiyear commitment of funds that rarely can be expected from any single donor. Second, incentive and management problems are often a result of the lack of public sector reforms related to salaries, performance incentives, hiring and firing practices, and accountability processes in the public service. Where fundamental reforms in public administration are required, the objectives of capacity development projects should be revised and made more realistic. Third, narrow concepts of capacity (involving mainly

analytical skills and the public sector) have often been used. Fourth, the use of long-term technical assistance can in some cases actually weaken capacity-development efforts. Finally, lack of sustainability might be the result of linking capacity development to policy reforms.

Participation. Project design and evaluation needs to take into account the participants involved in capacity development and the type of policy analysis, formulation and dissemination they are pursuing. The identification of what capacity needs to be developed, for whom, and how, requires the participation of diverse stakeholders (especially the poor, women and disadvantaged groups). Participatory methods for improved communication and building consensus are critical to improve policy formulation capacity. A demand-driven approach is most likely to identify the real capacity needs, and enhance the ownership and sustainability of the project and processes (box 1.14).

Box 1.14 Ukraine: ownership in capacity building through the Ukraine Policy Analysis Unit

In 1998, through the United Nations Development Programme (UNDP) Agricultural Policy for Human Development Project, the World Bank and other donors began supporting the Ukraine Policy Analysis Unit (PAU), whose primary role is to advise the Cabinet of Ministers on major issues of reform in agriculture. Collaboration between foreign technical assistance and highly qualified local experts has built strong local capacity for policy analysis. As the PAU is not under Ministry control, it can provide relatively unbiased recommendations. The unit has developed a reputation throughout the government as a consistent source of high-quality policy advice.

Because of this reputation, the PAU has been able to exert strong influence in reshaping the Ukrainian agricultural policy agenda, by improving current policy outputs, facilitating policy coordination, and proposing more market-oriented approaches to current problems. Among its primary functions, PAU has provided technical comments on agriculture-related laws as they are being developed. The unit has also published many papers, presenting original analyses of various sector issues, and it has delivered a wide variety of training activities. Donors currently fund the professional staff and other expenses. The extent of the unit's sustainability, once foreign assistance is withdrawn, remains unclear, although the signs are promising.

Source: World Bank and OECD (2004)

Institutional considerations. An important issue is the flexibility the public sector has to use country capacity existing in the private sector, NGOs, and civil society. Contracting certain functions (for example, agricultural policy research) to the private sector builds on nationwide capacity. The use of competitive or matching grants can be effective for harnessing capacity in other organizations. Capacity development activities in the country should be coordinated to prevent duplication of effort. When policy formulation for the agricultural sector depends on the inputs of several line agencies outside of the agricultural ministry, there may be issues concerning where capacity development should be located to be most effective. In general, sound policy formulation relies on transparent debate, on the open circulation of ideas, and on whether policy units have an appropriate level of autonomy from the central government.

Environmental considerations. Environmental issues are increasingly important in the design of agricultural programs and policies. Both public and private sector capacity is

needed to address issues such as environmental impact analysis, trade and environment linkages, biodiversity, and genetically modified organisms.

Lessons Learned

Context, content, and time dimensions. Capacity development for policy formulation depends on the context in which the capacity is developed, the content of the capacity being developed, and the time horizon in which the process takes place. Confusion among these might lead to the wrong choice of capacity development activities. Context can relate to policy reform (for example, agricultural input market liberalization), structural change (movement from central planning to market orientation), strategy formulation (10-year strategy for agricultural research), or evaluation of past policies (policy review and impact analysis) and will determine the skills and amount of time needed. Similarly, emphasis will differ with regard to analysis, coordination, dissemination and awareness, negotiation, policy evaluation, and network management, depending on the specific context. Choices made as to the time horizon (short to long) of the capacity development effort will depend on resources available and desired outputs.

Technical and process assistance. Capacity development projects should use a combination of technical and process assistance. An exclusively technical approach is not appropriate when policy formulation is concerned, because of the need to involve different stakeholders who may not have technical backgrounds. Even for those who do, the process of analyzing, formulating, and disseminating policy can be as important as technical skills per se. A combination of methods and approaches to improve both technical and managerial skills is necessary for effective capacity development.

Collaborative arrangements and communication. Methods of promoting collaboration and communication include hands-on research, co-authorship of reports and presentations, joint design and implementation of fieldwork, and joint planning of workshops and training activities (box 1.15). The outsourcing of analytical tasks and dissemination activities can promote collaboration between the public and private sectors. Policy research in particular should be conducted by academic institutions and private consulting firms, the capacity of which must be built in many cases.

Box 1.15 Vietnam: collaboration for increased agricultural policy analysis capacity

Since the late 1980s, Vietnam has been developing capacity in policy formulation appropriate to the market system. Capacity building approaches in the agricultural sector have included short- and long-term training courses in-country and abroad, university curriculum development, strategy formulation, policy analysis training, adoption of new research programs, and restructuring of the Ministry of Agricultural and Rural Development. These efforts have been supported to good effect by different donors and have involved collaborative arrangements with various universities as well as the international research centers supported through the Consultative Group on International Agricultural Research (CGIAR). Rice policy reform, for example, proved within four years to be worth more than \$60 million dollars to Vietnam's economy.

One of the most successful outcomes has been the renewal of the Information Center for Agriculture and Rural Development, located in the ministry. The center includes some of the best

agricultural policy analysts in Vietnam, is responsive to the policy formulation needs of decision makers, and has established a network including research organizations, universities, international agricultural research centers, and local experts.

Source: Ryan (1999a); Authors

Monitoring and evaluation. Monitoring and evaluation (M&E) of capacity development should clarify "what capacity" is to be monitored and how progress is to be measured. The purpose of M&E and the way results will be used should be articulated clearly as well. If M&E is regarded mainly as a surveillance system rather than as a learning tool for improvement, the overall process of M&E is likely to fail. The methods, baselines, and indicators used for M&E should be clearly defined and agreed before starting the process, and agreement should be reached as to who will conduct the M&E. These precautions will minimize conflicts of interest and improve the reliability of information obtained.

Recommendations for Practitioners

Capacity building investments should (box 1.16):

- Understand the context of the capacity development initiative, as it will largely determine the appropriate content and time frame for the project.
- Undertake extensive consultations with stakeholders in the government, private sector, academia, and civil society to develop a sense of what is needed and by whom, what is available, who will support investments, and how these will be monitored.
- Promote participation and ownership through national workshops, close association with project designers, follow-up meetings, and sharing the initial project documents.
- Ensure that investment initiatives have built-in flexibility that allows adaptation to changing circumstances.
- Involve a consortium of consulting service providers, as no single consulting service is likely to meet all requirements for capacity building.
- Provide for contracting-out of research activities and competitive grants during project implementation.
- Ensure that sufficient management oversight is provided for policy-related investments and that adequate resources are available for donor and agency coordination.
- Explore possibility of cofinancing, both within the same time period and over time, to improve long-term support to capacity development.

Box 1.16 Potential investments

- Regional and in-country policy networks.

- Partnerships among stakeholders in the private and public sectors and civil society.
- Participatory stakeholder workshops.
- Collaborative research with international and local organizations.
- Competitive grants to conduct policy research and foster policy awareness.
- Training and workshops for enhancing managerial capacity in policy units, policy research organizations, and policy centers.

Source: Authors

Selected Readings

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Reform of Agriculture Subsidy and Protection Policy

Past programs for providing support to farmers (for example, input subsidies, guaranteed prices, and border protection) have been market distorting and highly inefficient. Such policies are typically costly to consumers, detrimental to the environment, and regressive in terms of domestic income distribution. Impacts on world markets have significant consequences for developing countries where agriculture is of major economic importance. Key elements for policy reform in this area include: reducing input subsidies, decoupling support from production, converting existing tariffs to ad valorem forms, reducing the overall level of support/protection, and restructuring the classification and commitment system governed by the WTO.

Support to agricultural producers can be provided through (1) border measures, such as import tariffs and restrictions that raise domestic prices (thus financed by consumers), (2) export subsidies (generally taxpayer funded), and (3) subsidies to farmers (on both agricultural inputs and output) that are also financed by taxpayers. While these policies are generally intended to support economic development objectives, the impacts of support policies extend across international borders and can have major negative implications for producers, consumers, and the environment, both domestically and abroad. Agricultural support policies, especially in Organization for Economic Cooperation and Development (OECD) countries, lower the world price of many commodities and increase world price variability, both of which are damaging to developing countries. Counter-cyclical policies in rich countries tend to increase resource transfers to farmers when world commodity prices decline, leaving producers in developing countries to bear the brunt of fluctuations.

Protection for agricultural producers has remained very high, especially in the large OECD economies (box 1.17). This support has closed markets that otherwise would have been available to developing country producers, and it has led to surpluses that have been exported (sometimes using export subsidies) onto world markets, depressing world prices. Average levels of border protection (tariffs and nontariff barriers) are also high in developing countries, where governments have intervened heavily in commodity and input markets (through parastatals and marketing boards and with price supports and input subsidies).

Box 1.17 OECD Producer Support

Average producer support equivalents over 2000-02 equated to US\$47 billion (USA), US\$92 billion (EU), and US\$48 billion (Japan), with total support being considerably higher. These producer supports also vary greatly among commodities: rice (81 percent), sugar (45 percent), wheat (36 percent), beef and veal (36 percent), and poultry (16 percent). On average, prices received by OECD farmers were 31 percent above world prices and almost one-third of total farm receipts originated from government programs. Of this support, 69 percent is administered via price support and output payments; the most distorting mechanisms.

Source: OECD 2002

Benefits

The benefits to a country from reforming its support policy (irrespective of reform in other countries) are substantial and include the freeing of public resources for other uses, greater overall economic efficiency, and the transition to more dynamic and innovative farming systems capable of adapting more easily to changing market signals. Reform at the global level will result in even greater benefits—the annual gain to developing countries from liberalization of agriculture and food policy by high-income countries is estimated at more than US\$30 billion, and the gain to developing countries from their own liberalization of agriculture and food policy is an estimated US\$114 billion (World Bank 2002).

There may be losers in the overall reform process, however, and the effects will differ across countries. Countries that are net importers of agricultural products—and consumers in all countries that do not liberalize—will lose as prices rise. These losses will be tempered to the extent that agricultural production and exports of some products expand, and price volatility declines. Some producers will face increased production costs as input subsidies are removed. However, overall, unilateral liberalization will usually result in significant net benefits to a country, with important poverty reduction potential, despite some groups being made worse off in the short run.

Key Policy and Implementation Issues

Tax on development. The collective impact of policies of countries providing large support to domestic producers is significant among countries that do not provide comparable support (whether by choice or otherwise). Industrial country agricultural protection blocks growers in developing countries from diversifying out of traditional crops as a way of increasing value and reducing their vulnerability to price fluctuations. The escalating tariff structure in industrial countries—with higher tariffs for processed than for primary goods—magnifies the protection of domestic processing industries above the nominal tariff rate. In the EU and Japan, fully processed manufactured food products face tariffs twice as large as products in the first stage of processing. These policies amount to a tax on development.

Input subsidies. Governments frequently provide support to farmers through subsidized inputs—water, power, credit, fertilizer, seed, and chemicals—that distort production incentives and impose net costs to taxpayers and consumers. WTO rules allow the continuation of some production subsidies that do not distort or “minimally” distort trade, such as for general government services (research, disease control, infrastructure), structural adjustment assistance, and regional assistance programs. In general, domestic support should be redirected to the areas where greater public good elements lie—infrastructure and institutions that enable the private sector to supply inputs efficiently, at prices that enable producers to compete in global markets. Sound economic analysis must underlie decisions to continue any input support policy.

Political nature of support and burden on taxpayers. Agricultural support poses huge out-of-pocket costs to taxpayers and consumers. During 2000-02, the average annual total

support to agriculture in OECD countries reached US\$315 billion. Of that, the EU provided US\$113 billion, the USA US\$95 billion, and Japan US\$65 billion. In India, input subsidies alone averaged about 9 percent of agricultural GDP during the 1990s (Gulati and Narayanan 2003). Although fiscal transfers are lower in developing countries (partly because the public sector cannot finance them), protection levels in the form of trade barriers (which require less financing) are common. Such trade barriers often place a major burden on poor consumers, especially when protection is directed at traditional food crops. Although it is often evident that resources used for support and protection would be better allocated elsewhere, there is strong political pressure to maintain support to primary producers. This pressure arises in part because the (greater) benefits of liberalization are more diffuse than the concentrated benefits of protection, so the incentives for the beneficiaries to lobby for liberalization are correspondingly less.

Low transfer efficiency. In terms of income transfer efficiency (the percentage of consumer and taxpayer transfers that farmers actually receive), no support policy linked to agricultural activity is efficient. On average, only 25 percent of producer support actually finds its way into the producer's pocket. Only 25 percent of production subsidies and 20 percent of input subsidies benefit farmers (OECD 2002).

Inequitable distribution of benefits. Large-scale farmers and landowners get a much larger proportion of benefits than small-scale farmers. In Europe the largest 4 percent of farmers receive 21 percent of support and have per capita incomes that are more than double the average EU wage (Podbury 2000). In the USA, the largest 5 percent receive over 20 percent of government payments. Similar trends exist in developing countries. This tendency occurs largely because when support is given through either an artificially high price (for example, from import restrictions, export subsidies, or direct payments per ton of production) or through input subsidies, the biggest beneficiaries are the biggest producers, who are also the biggest users of inputs.

Adverse environmental impacts. Agricultural subsidies and protection can lead to excessive use of chemicals and fertilizers that can harm the environment. The high price paid to rice farmers in Japan, for example, encouraged overuse of insecticides to protect crops. In 1993, although Japan produced only 3 percent of the world's rice, its share of global expenditure on rice insecticides was 34 percent. Reducing distortions forces farmers to base input and output decisions on real economic costs, thus promoting sound farming practices and sustainable natural resource management.

International agreements. New multilateral trade negotiations were launched at the Fourth WTO Ministerial Conference held in Doha in 2002, with the objective of significantly reducing all types of barriers to agricultural trade, including barriers to market access, export subsidies, and trade-distorting domestic support. Developing country policy reforms will take place within this context but will continue to be influenced by unilateral political realities (box 1.18).

Box 1.18 What happened at Cancun?

The Cancun World Trade Organization (WTO) Ministerial Meeting in September 2003 was

originally planned to be a mid-term review of progress in the Doha Round negotiations. Instead, because so little progress had been made in key areas, it became an attempt to break the impasse. Ultimately, it failed to do so. The proximate cause of the failure was disagreement over whether to include in the Doha agenda the “Singapore Issues” of investment, competition policy, transparency in government procurement, and trade facilitation. But there is a widespread feeling that a compromise could have been reached in this area had not the atmosphere been poisoned by the stalemate in agriculture. The EU and USA made a joint offer, but developing countries considered it too little, too late, and with too many loopholes that would allow the rich countries to avoid serious reform. For their part, the developing countries were not very forthcoming; they made many demands but few offers. What is needed to put the negotiations back on track is a grand bargain in which both developed and developing countries play their part.

Source: Authors

Domestic agricultural support is classified in the WTO Uruguay Round Agreement on Agriculture (URAA) using a system of “boxes” (box 1.19) that rank programs according to their effect on trade. Policies deemed trade distorting are put in the “amber box,” which consists of direct subsidies and price support reflected in the gap between a fixed world reference price and domestic support prices. Amber box support was subject to a 20 percent reduction by 2000 for industrial countries and to a 13 percent reduction by 2004 for developing countries.

Box 1.19 Domestic support in agriculture: the World Trade Organization’s colored boxes

Amber box—includes all domestic support measures considered to distort production and trade (except those in the blue and green boxes), including measures to support prices or subsidies directly related to production. Members are required to reduce that support unless current levels are already low (5 percent of agricultural production for industrial countries, 10 percent for developing countries).

Blue box—is the amber box with conditions that reduce distortion. Any support that would normally be in the amber box is placed in the blue box if the support also requires farmers to limit production. At present there are no limits on spending on blue box subsidies.

Green box—includes subsidies that do not distort trade or at most cause minimal distortion, such as research and extension services. These subsidies are government funded and do not involve price support, but they include direct income support for farmers that is “decoupled” from current production levels or prices. They also include environmental protection and regional development programs. There are no limits on green box subsidies.

Source: WTO

Lessons Learned

Responding to protectionism in the North. The continued high subsidies to farmers in many industrial countries makes agricultural trade reform in developing countries much more difficult, as reducing their import barriers appears to be “unilateral disarmament.” The question of whether this kind of reaction is good development policy is complex. Continued protectionism in a developing country represents a tax on its consumers, and in the case of many food products, the poor feel the effects disproportionately. However, if it is likely that industrial country subsidies on a product will be reduced or eliminated

in the near term, with a consequent rise in its world price, temporary protection for domestic producers may be justified. Given the slowness in global trade negotiations, in most cases it is economically prudent for countries to adopt policies (and producers to allocate resources) that accept prevailing international prices, distorted though they may be. It must be recognized that this choice may be politically difficult and require considerable policy dialogue among a range of stakeholders. In any case, policies of the industrial countries cannot be used to rationalize developing country tariffs higher than the percentage by which these policies depress world prices (which is about 5-20 percent for most products). Decoupled income support programs—in other words, payments that are not linked to product prices, input use, or outputs—can be important for making tariff reduction more palatable for producers.

Bring agricultural products into the general framework of ad valorem tariffs. Reducing tariff peaks on products important to developing countries is critical. Although developed countries boast average ad valorem tariffs of less than 5 percent on manufactured goods, they still have very high tariffs on many agriculture products. *Specific tariffs*—a tax expressed per unit of quantity—are nontransparent, because their impact on relative prices changes frequently and unpredictably as world prices change. They also tax lower-value products relatively more, thereby creating a systematic bias against developing country products. *Tariff quotas*—the application of one level of tariff to imports within a certain quota and a higher level to imports over that volume—result in a system whereby imports within the quota are very profitable, generating a wasteful use of resources geared toward obtaining import quotas. Both specific tariffs and tariff quotas should be converted into ad valorem tariffs—that is, tariffs calculated on some percentage of the border prices. Tariff escalation also needs to be significantly reduced or eliminated by bringing down higher tariffs on processed products (Hewitt 2003).

Undertake strong commitments to reduce trade-distorting domestic support. Effective reform of support policies across industrial and developing countries will require changes to current methods of measurement and classification of support as well as strong commitments to reductions, and reform would be aided by changes to current methods of measurement and classification of support. Many stakeholders (donors, governments, and the private sector, including trade associations and producer groups) have a role in the policy analysis, advocacy, and negotiations related to this issue. Key investment areas for the public sector are outlined in box 1.20. Potential changes that developing countries, supported by donors, might advocate relate to industrial countries and to developing countries themselves, and they include:

- A commitment to reduce support based on policy type and commodity sector rather than on a single aggregate measurement of support.
- Further reduction of amber box subsidies (for example, to a maximum of 5 percent of the value of production at world prices), with a commitment to extend that ceiling to each individual commodity sector in the future.

Box 1.20 Potential investments

- Analytical studies to identify the instances where subsidized inputs or price support might be appropriate.
- Support for the transition away from protection to market-led production systems.
- Training for policy makers and representatives in international trade regimes and negotiations.

Source: Authors

- Tighter criteria for policies included in the green box, with a cap on these at 5 percent of the total value of agricultural production, as measured at world prices, or current levels of expenditures on the measures included in the redefined green box, whichever is lower.

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Facilitating Efficient Adjustment to Liberalized Trade

Trade liberalization has potential to yield considerable benefits to the poor in developing countries, but it often requires adjustments that are difficult or painful to execute effectively. Making the transition away from inefficient, protected domestic industries to commercially oriented production based on global market forces presents several challenges, both economic and political. These challenges include improving competitiveness by overcoming existing policy biases within agriculture, participating effectively in global negotiations, managing acute price volatility, providing safety nets for the poor who are adversely affected by liberalization, improving the investment climate to assist emerging profitable industries, and retraining the workforce.

Rapid growth of the world economy has been driven in part by the even faster rise in international trade resulting both from technological developments and concerted efforts toward trade liberalization. Trade liberalization is the reduction of trade barriers to allow price signals in world markets to guide the allocation of resources. It involves the deregulation of domestic and international market environments such that price signals are based primarily on economic forces (demand and supply) that foster the development of competitive markets. As a result of trade liberalization, the relative price structures for both agricultural inputs and outputs can change substantially, which, coupled with the decline in prices for traditional commodities, can have major implications for producers.

While trade liberalization can potentially help the poorest move from extreme poverty, liberalization alone will not necessarily contribute to growth or poverty reduction and may in fact make the poor worse off if not supported by focused transitional policies and appropriate investments for adjustment. Deregulation in isolation of complementary policy and investment initiatives may leave gaps that the private sector is unwilling to fill, and it may further marginalize the poor from participation in markets. These challenges provide a rationale for public-sector intervention to assist with the transition and adjustment process. The means by which this adjustment can be facilitated are many and include transitional income support payments, formal market-based mechanisms to manage risks, and general industry assistance for adjusting from one production system to another. Many of these issues are addressed elsewhere in this sourcebook, and this note will focus on those that are more directly related to trade policy.

Benefits

Outward-oriented countries tend to grow consistently faster than countries that are inward looking. The increase in aggregate welfare of developing countries from global agricultural trade reform could be some US\$142 billion annually. Most of these gains would come from trade policy reforms *within* developing countries themselves (about US\$114 billion). Developing countries stand to gain significantly because their exports face higher barriers, and the agricultural sector is relatively large.

Poor consumers stand to benefit the most through increased availability and variety of food at lower prices. Because poor consumers spend more of their limited incomes on food, they benefit disproportionately, making food market liberalization a very pro-poor

policy. Producers benefit from the emergence of profitable new production opportunities that arise when inappropriate subsidies and barriers to trade are reduced. Farm incomes can increase both from higher prices of traditional products and from diversification to new products that become profitable. Further, input costs can fall and access to new technologies can be improved when input markets are liberalized. Some producers whose governments heavily subsidize inputs may lose (via increased production costs), at least in the short run, but stand to benefit in the long run provided they have an underlying competitive advantage in some products. Exit strategies or permanent transfers may be necessary for those that do not.

Policy and Implementation Issues

Changing architecture of world trade. Although trade barriers in industrial countries are generally low, the remaining barriers are concentrated on agricultural products and labor-intensive manufactures in which developing countries have a comparative advantage. As agriculture has a larger tradable component than most sectors, the trade environment and trade policy strongly affect the agriculture sector. New multilateral trade negotiations were launched at the Fourth WTO Ministerial Conference, held in Doha in 2001, with the objective of significantly reducing all types of barriers to agricultural trade, including trade-distorting domestic support. For developing countries, the *capacity to participate effectively* in these negotiations must be increased so that they are fairly represented, and their interests and concerns relating to agricultural trade can be presented in global efforts to achieve meaningful progress in global trade policy reform.

Policy biases against agriculture. Despite protecting domestic producers, developing countries have in the past typically taxed their agricultural sectors, to some extent directly (for example, by taxes on exports or controlled food prices) but, even more so, indirectly, through trade barriers and macroeconomic policies that overvalued the exchange rate and turned the internal terms of trade against agriculture. Commodity and input markets have been characterized by heavy government interventions through centralized input procurement measures (government parastatals and marketing boards), input subsidies, quotas, taxes on exports of agricultural commodities, and various regulatory rules. These biases all reflect market and trade regimes that are far from “liberal,” in the sense that they are highly regulated, and their economic signals are distorted by direct and indirect public sector intervention.

Transitional issues. The resistance to policy changes presented by adversely affected groups in part reflects barriers to their exit from inefficient production systems as well as barriers to their participation in new opportunities as they emerge. Imperfectly functioning capital and labor markets, inadequate public services, poor infrastructure, and research and extension systems that are biased toward traditional (protected) production systems, all limit the ability to transform farming systems and improve resource liquidity, including labor mobility. Poorer farmers may be among the most adversely affected. Older persons, those who are less educated, and those with human capital specific to farming are particularly affected. The public sector must promote the development of supporting institutions and infrastructure and of retraining programs for adjustment.

Increased price variability. Variable levies and quotas, as means of stabilizing the domestic price of tradable food commodities, shifted domestic instability of prices to world markets. The URAA, completed in 1994, had some effect in reducing the trade-distorting effects of such policies, and the Doha Round is expected to result in much more significant reforms. At the national level, there has been increased transmission of global price movements to domestic producers and consumers, which is further complicated by other factors such as exchange rate fluctuations, climate, and poor infrastructure. A challenge is to develop effective ways for farmers to manage price risks while at the same time avoiding distorting price signals and production incentives.

Changing price structures. The biggest farm-level implication of trade liberalization and the movement toward competitive markets is typically the adjustments of relative prices (both for agricultural inputs and outputs), which result from the removal of commodity-specific support or protection either at home or abroad. Production systems that have provided often-stable livelihoods for generations suddenly can become unprofitable, but new opportunities open up to producers for redeploying resources used in the now-inefficient industries. The key issue for policy makers is to recognize where and when adjustment is essential, and to provide an environment in which the exit of inefficient farmers and entry to new market opportunities is enabled.

Lessons Learned

There are several means of addressing issues associated with trade liberalization and with assisting the transition, such that potential benefits for the poor are fully exploited. Informal measures, such as growing a variety of crops with different market and climatic risks, can assist the transition to a commercially oriented agricultural sector. Contract farming and off-farm employment are also important. Some of the more formal measures include direct income support, agricultural insurance, and market-based price risk management. These measures are touched on here and discussed in greater detail in other chapters of this sourcebook.

Income support and safety nets. By decoupling support from prices, direct income support programs can provide for the transition from price-distorting subsidies to an efficient and liberalized sector. Payments should be fixed and guaranteed (usually per hectare up to a maximum), and they should not be influenced by ex post realizations of market conditions. Features that will increase the effectiveness of a decoupling scheme include: make the payment program transitory and for adjustment purposes only; impose no requirements on input use or on outputs; implement credible and time-consistent policies with no changes in the eligibility or payment rules; discontinue all other programs linked to price support; and bind payments and time frame into WTO to prevent reversal or agreements. Public works programs, incentive systems for exit, government distribution of resources in kind, cash payments, and social funds can all be used to help those who are most likely to be adversely affected through the transition phase.

Price bands. Price bands and price floors are tools that have been used to manage price risks resulting from moves toward trade liberalization. Price floor schemes aim for the

elimination of the worst-case scenarios associated with several concurrent years of especially low world prices. For specific "sensitive" commodities, a minimum world price or threshold level might be defined, below which a government would commit itself to intervention in order to maintain the domestic price received by producers. The threshold price should be based on *the minimum-average cost of the least-cost international exporter*. This strategy permits the unhindered development of market-based price risk management activities, formerly impeded by programs of "price stabilization." Similarly, many countries are interested in price ceilings to protect poor consumers from temporary sharp jumps in prices of food staples. These schemes should be approached with care, as although they are based on solid theoretical underpinnings, experience to date has been mixed.

WTO safeguards. When either an abrupt and large inflow of imports or a sudden decline in import prices threaten a country's import-competing sector, WTO safeguards can be applied as a means of assisting producers in the adjustment process. These measures (box 1.21) permit the temporary suspension of WTO obligations.

Box 1.21 WTO safeguard measures for countries adjusting to liberalization

- Anti-dumping measures (based on injury to a domestic industry) to counteract the effects of firms using price discrimination to lower export prices below home market prices.
- Countervailing duties also based on injury to a domestic industry but applied to the subsidization of the exporting country's government.
- Emergency temporary safeguards that are immediately applicable without formalities in the event of imports threatening serious injury to domestic industries.
- Other measures include those related to balance of payments, "general waivers," and modifications of schedules.

Source: Foster and Valdés, in press

Complementary public investment to facilitate transition to efficient systems. To encourage the overall reallocation of resources that is required to ensure sustainable growth from trade and market liberalization, it is critical to establish a supportive investment environment and empower the poor to participate in it. Trade reform must often be combined with public expenditure reform that encourages productivity growth, competitiveness, reduced transaction costs, and market development. Key issues largely relate to overcoming supply side constraints and include:

- Building analytical capacity (in terms of understanding policy reform options and impacts with respect to substitution effects, supply response, exchange rate effects) for agricultural policy development, including the removal of policy biases (that is, by reducing explicit and implicit taxes on agriculture and reform of public sector marketing arrangements), and developing macroeconomic policy that complements trade policy (for example, maintenance of a stable real exchange rate at a realistic level—avoiding overvaluation).
- Upgrading public sector institutions related to markets and trade—including customs, quality, grade and labeling standards, certification agencies, financial supervision agencies, contract enforcement regulations, and property rights laws.

- Development of private sector institutions critical for markets—namely risk management systems (agricultural insurance, methods for price risk management), agencies for product certification, trade associations and other frameworks for private sector organization and group action, rural finance systems (including inventory credit), and mechanisms for supply chain coordination (for example, contracting and vertical integration).
- Development of physical infrastructure and industries essential to trade and the transition to alternative production systems, such as transport, communications, financial sector, and business services, particularly through the introduction of regulatory policies that, where feasible, harness competition. Efficient and integrated input and output markets will evolve only if ineffective parastatals are privatized or abolished. As for institutions, supporting industries and infrastructure may require various forms of public-private cooperation.
- Retraining labor so that displaced workers can develop new skills to productively fill emerging employment opportunities. Research and extension systems often need reform to become more market-driven in order to provide farmers with technologies relevant to the new production opportunities. Elimination of testing requirements for imported and domestically produced inputs (seeds, fertilizers, and pesticides) not related to environmental or sanitary or phytosanitary threats will also ensure that farmers can readily access a wider range of world-class technologies.

Recommendations for Practitioners

Investments associated with facilitating adjustment to trade liberalization (box 1.22) should:

- Ensure that the interests of the agricultural sector and consumers as a whole are represented in trade policy negotiations at global and regional levels.
- Generally, accept the world price structure as a long-term characteristic of the environment, and ensure that resource allocation decisions are based on it, regardless of whether prices are depressed by the policies of other countries.
- Provide support programs as temporary transitional tools. Industry-specific support should be used only where comparative advantage exists and reductions in global barriers are highly likely in the near future.

Box 1.22 Potential investments

- Capacity building and advocacy to promote a fair liberalization process in international trade negotiations.
- Assistance for governments to develop income support and safety net programs that help groups made worse off by liberalization.
- Technical assistance in the development of risk management mechanisms that protect viable industries from short-term acutely low prices.
- Investments to develop retraining programs and reform research and extension systems.
- Technical assistance and capacity building to improve the investment climate, key administrative services, and critical infrastructural needs.
- Technical assistance to help small-scale farmers in developing countries use market-based risk management instruments.

Source: Authors

- Consider using decoupled income payments as a safety net (for example, support payments based on land area rather than production level) to cushion farmers' incomes from precipitous price declines when other forms of support are phased out. Ensure that income payments are transitional and do not become entitlements.
- Promote the development of supporting industries, institutions, and infrastructure.
- Develop training programs to enable poor farmers and agricultural workers to redeploy their skills to new industries. Training should endow workers with skills that are flexible and so can be adapted to various industries over time.

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<p>This investment note was prepared by Sam Kane and John Nash, with input from Derek Byerlee.</p>
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Adjustment Lending for Agriculture Policy Reform

Adjustment lending for agriculture (lending to support policy and institutional change for sustained economic growth) expanded greatly in the late 1980s and 1990s, but project design and analysis focused relatively little on poverty. Some programs have tended to rely too much on conditionalities and tranching. Challenges for future investment in agricultural adjustment programs include improving analytical capacity, building government ownership and support, improving the design and application of repayment conditions, ensuring that the poor benefit, and improving collaboration with other donors. Within the World Bank, new operational policy guidelines are expected to improve adjustment lending (or “development policy lending”) and eliminate some of the past restrictions on these programs.

After focusing on major infrastructure investments in the 1960s and 1970s, attention turned to the “software” side of development and the provision of services and the policy environment for development. Policies that distorted private sector investment and activity, especially with regard to marketing products and inputs, were an obvious constraint to growth during the 1980s. Strategies evolved for dealing with these distortions through loans conditional on market-liberalizing policy changes. These loans, variously called “structural adjustment loans” (SALs) and “sectoral adjustment loans” (SECALs), were devised largely to encourage governments to retreat from private sector activities and to facilitate more open economies. Agricultural sector adjustment loans (ASALs) were designed specifically for the agriculture sector.

Lending for Agricultural Sector Adjustment

Adjustment loans aim to support the policy and institutional changes that are needed to create an environment conducive to sustained and equitable growth. Adjustment operations generally aim to: promote competitive market structures (legal and regulatory reform); correct distortions in incentive regimes (taxation and trade reform); establish appropriate monitoring and safeguards (financial sector reform); create an environment conducive to private investment (judicial reform, adoption of a modern investment code); encourage private sector activity (privatization and public-private partnerships); promote good governance (civil service reform); and mitigate short-term adverse effects of adjustment policies (establishment of social protection funds) (Jayarajah and Branson 1995). Eligibility for an adjustment loan requires agreement on policy and institutional reform actions and satisfactory macroeconomic management. Funds are disbursed in one or more stages (tranches) into a special deposit account, with tranches released when the borrower complies with stipulated conditions such as the passage of reform legislation, the achievement of certain performance benchmarks, or other evidence of progress toward a satisfactory policy framework.

Adjustment operations accounted for 17 percent of total Bank lending in the 1980s and increased to 29 percent of total lending during the 1990s. This increase is partly attributable to greater lending in the post-Soviet bloc countries, where the need to reduce

the role of the state in the economy was great. Agricultural adjustment lending has varied widely, ranging from 5 percent of total agricultural lending in 1998 to 48 percent in 2002.

Benefits

Successful adjustment lending can lead to a more stable macroeconomic environment, a more transparent incentive system, more efficient resource allocation, and stronger institutions and capacity for policy analysis, all contributing to accelerated economic growth. There can be a positive effect on poverty through the increased income and employment opportunities resulting from adjustment, although in the short term there may be adverse effects on poverty reduction. Since a sound policy environment is essential to sustainable growth, adjustment lending can be an important development tool to facilitate policy and institutional reform and implementation. If it is not well designed and implemented, however, policy-based lending can be highly ineffective.

Policy and Implementation Issues

Effects on the poor and monitoring. With adjustment lending, conditionality can lead to major changes in agriculture that have large consequences for various stakeholder groups. The lag-time between adjustment and economic growth is substantial, and the poor can be adversely affected through this transition phase. Poverty and social impact analysis (PSIA) is critical for ensuring that reforms are designed with particular attention to impacts among different social groups and the long-term effect on poverty (box 1.23). Supervision and monitoring are also critical to implement ASALs effectively and to assist borrowers in identifying problems in time for mid-course corrections (though supervision and monitoring cannot compensate for poor design or lack of commitment). Failure to monitor social impacts of adjustment lending in sufficient detail has been a deficiency of earlier operations. In some cases, when supervision ends with release of the final tranche, policy reversals undermine reforms. Even after the final tranche is released, progress should continue to be monitored closely, particularly with regard to impacts on poorer and more vulnerable groups.

Box 1.23 Poverty and social impact analysis

Poverty and social impact analysis (PSIA) reveals the distributional impact of policy reforms on the well-being of different stakeholder groups, with a particular focus on the poor and vulnerable. Important elements that PSIA needs to address include:

- Identifying which reforms are likely to have the most significant impact.
- Identifying stakeholders that influence the adoption and implementation of the policy and that are being influenced.
- Understanding transmission channels by which stakeholders may be affected.
- Assessing institutions.
- Gathering data and information.
- Analyzing impacts.
- Contemplating enhancement and compensation measures.
- Assessing risks.
- Monitoring and evaluating impacts.
- Fostering policy debate and feeding back into policy choice.

Overreliance on conditions and tranching. As it is rarely possible to implement the full array of needed policy changes and institution-building activities at the outset of a reform program, conditionalities are typically a necessary part of adjustment lending. For instance, actions relating to upgrading institutions, liberalizing trade, and deregulating licensing systems and financial markets can take several years, so dramatic reform may not be possible over relatively short periods. Past adjustment lending, however, has tended to rely too much on conditions and tranching. Delays in important reform activities can be avoided by ensuring an even distribution of the priority conditionalities and by making release of the first tranche conditional on the more important reform actions. Conditionalities should be realistic, both economically and politically, and seen to be so by both the lender and the government (Jayarajah and Branson 1995). Future programs should include fewer conditionalities representing well-focused and monitorable policy actions and clear expectations for the borrower.⁶

Content and coverage. The overall conclusion of a recent study is that the analytical underpinnings and relevance of the components of ASALs have been appropriate on most issues (Feder and Anderson 2003). Typically, thematic coverage of agricultural adjustment operations includes domestic market reforms and privatization, external trade reform, land reform to allow private ownership/user rights, removal of input subsidies and other price distortions, and rural finance reforms. Domestic market reforms and privatization are still the core of adjustment operations, reflecting the fact that recent ASALs have been funded in regions still dominated by state-controlled domestic markets where most marketing and processing (and, in Eastern Europe and Central Asia, agricultural production) was handled by parastatals or state-supported entities. Most ASALs address domestic market and external trade reform components as well.

Implementation problems. Implementation has a mixed record, particularly regarding the removal of state control over the domestic economy and the privatization of large parastatals, where vested interests (and their political patrons in and around government) had much at stake. In some cases, subsidies have been removed and then reintroduced in different, less direct, forms. Even officially privatized parastatals are on some occasions still not fully delinked from government control and budget support (and consequently they are unlikely to operate as efficiently as expected).

The relatively weak actual performance of governments in implementing ASALs reflects an overly optimistic assessment of political commitment and/or government capacity to carry certain measures through a noncooperative parliamentary system or a noncohesive governmental apparatus. Sufficient scrutiny and realism to identify potential political risks and government weaknesses is an important part of agricultural adjustment operations. Donors can support the process by: (1) strengthening the institutions involved; (2) assessing the capacity of the borrower and tailoring conditionality accordingly; and (3) providing an appropriate mix and sequence of program and project

⁶ See the IAP, "Bulgaria: Adjustment Lending in a Transitional Economy."

support to maintain critical expenditures and promote investments for longer-term growth.

Success factors. Success of adjustment initiatives is likely to be greater where infrastructure is well developed, educational levels are high, institutions in the public and private sectors are mature, trade regimes are less highly distorted, and there is an ability to withstand or cope with exogenous shocks (such as droughts). Governments implementing policy reforms need to be insulated from adverse impacts on income and savings to protect the reform process and maintain credibility. For example, governments may need to provide transitional support, both to ensure the success of reforms and to minimize their effects on the most vulnerable groups. Successful adjustment often results in agricultural production moving from low to higher value-added activities. If this transition is to occur, it will require policies conducive to resource mobilization, development of infrastructure, trade and risk management, and technology transfer. Many countries have failed to relax entry and exit barriers for investment and to sufficiently open their economies to private investment, domestic and foreign.

Lessons Learned

Analytical foundations. Sound design of agricultural adjustment lending programs begins with operationally oriented analytical work conducted well before program initiation. Ongoing policy dialogue on major macroeconomic and sectoral issues is an important element in the design process to build consensus for reform both within the government and among varied stakeholder groups. It is important to have adequate knowledge of the public enterprise sector before embarking on privatization or public sector reforms. Also important are fiscal adjustment measures in agricultural spending to protect agricultural growth from crisis, and efforts to understand the effects of exchange rate policy on agricultural terms of trade. All of these issues reflect the importance of basing phasing and sequencing of reform activities on thorough analytical work that accounts for time lags, substitution effects, and the linkages between agricultural policy reforms and reforms in other sectors.

Establishing ownership. Ownership increases the success of adjustment lending (Jayarajah and Branson 1995) (box 1.24). Despite its importance, borrower ownership remains conceptually elusive and insufficiently explored with regard to policy and practice of adjustment lending. It is seldom clear as to what constitutes adequate ownership or what can be done to increase and sustain commitment to an adjustment program. For ASALs, for instance, having allies outside ministries of agriculture and ministries of finance is helpful because of strong intersectoral linkages.

Box 1.24 Generating ownership

A 1995 World Bank study found that the most important factors generating program ownership were (1) political stability; (2) support of (or lack of opposition from) various constituencies; and (3) preconceived official attitudes toward reform. Conversely: (1) a specific regime type did not intrinsically exhibit a greater degree of political will; (2) the intensity of external and exogenous shocks neither facilitated nor posed obstacles to achieving a consensus toward reform; (3) the initial conditions in the economy had little relevance in either encouraging or impeding

ownership; and (4) the frequency and amount of government-Bank interaction was neither a necessary nor a sufficient guarantee for program ownership in the face of binding constraints.

Source: Jayarajah and Branson 1995

Public enterprise reform. In many cases, adjustment lending for public enterprise reform must accompany lending for agricultural sector policy reform. Public enterprise reforms include those related to divestiture of public enterprises (privatization) and those aimed at enterprises retained in the public sector. Both require constant attention to governance issues such as corruption and transparency. Privatization requires that enterprises appear viable to investors with the primary consideration in negotiations (that need to be transparent) being the quality of the investors and their plans for the enterprise, not the prices they offer.

Cooperation among donors. Donor assistance is often part of a wider international effort, and many groups typically have a significant say in the policy dialogue with borrowers. Close cooperation among donors and NGOs is necessary to avoid duplication of effort and conflicting advice and objectives. World Bank adjustment lending needs to ensure consistency between the conditionalities imposed by the Bank and those prescribed by the International Monetary Fund (IMF). In general, a synergy exists between Fund policies on stabilization and Bank support for structural change. Policy Framework Papers for low-income countries can foster agreement between the two institutions and the borrower.

Recommendations for Practitioners

As is the case for any lending program, adjustment operations must be built on strong analytical foundations, giving primacy to good prior economic and sector work. Adjustment lending interventions (box 1.25) should:

- Coordinate the design and implementation of adjustment loans with the IMF and other donors and ensure that reforms are consistent with reforms in other sectors and supported by an appropriate macroeconomic framework.

- Look for highly visible borrower commitment to and ownership of a definite reform plan. Conditionalities should be kept to a minimum, be realistic, and clearly indicate the expectations of the borrowing country.
- Identify what should be analyzed at donors' expense and what governments themselves, with technical assistance, should analyze.
- Progress in a logical sequence and disburse funding via appropriate tranching that requires that higher priority conditions be met first. Efforts to reduce price and other sector distortions should cover both outputs and inputs.
- Consider appropriate increases in investment lending to complement adjustment lending, and in particular, to overcome infrastructural constraints faced by producers.

Box 1.25 Potential investments

- Design of adjustment program reforms and implementation plans, including identification of unambiguous and realistic conditions.
- Situation and problem analysis to identify key thematic issues to be addressed and possible reform options.
- Building ownership and administrative capacity of the borrower through training and education programs.
- Program budget support.

Source: Authors

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Improving Animal Health Services through Public/Private Partnerships

An efficient animal health service, which integrates the official public service (referred to here as “the veterinary service”) effectively with the private and associative sectors, is critical to livestock production and the protection of human health. Most such services in developing countries historically have been provided by the public veterinary service, but they have been set back by quality problems, and the efficiency of services has declined dramatically over the last decades. There is considerable potential to improve services by attaining a better balance between the public and the private sectors and between professional and paraprofessional veterinary staff.

Actions needed to ensure an efficient animal health service include:

- Refocusing and strengthening public sector capacities to guide (although not necessarily carry out; see below) public good tasks, such as policy development, quarantine, disease surveillance (including early alert and rapid response), vaccination against the major diseases, and food safety.
- Developing private services for private good tasks, such as clinical treatments, vaccination against minor diseases, distribution and sale of veterinary medicines, and animal breeding. Establishing networks of community animal health workers, especially in more marginal areas, would enable the scarce human resources in public veterinary services to be used more efficiently.

Poor animal health and weak animal health services are the main reasons for losses in livestock production. Meanwhile, new and re-emerging zoonotic diseases—diseases that are transmitted from animals to humans, such as avian influenza, severe acute respiratory syndrome (SARS), and bovine spongiform encephalopathy (BSE)—pose major threats to human health and the global economy. For example, in Sub-Saharan Africa alone, direct and indirect losses of meat, milk, and work output from all types of animal diseases are estimated at about US\$2 billion a year, and these losses especially affect poor people. By the end of 2005, avian influenza in Indonesia, Thailand, and Vietnam had already caused economic losses exceeding US\$1 billion. Losses to BSE are estimated to be at least US\$20 billion.

The quality of animal health services has declined for several reasons, which vary by country and region. In many regions, including Sub-Saharan Africa, South Asia, Latin America, and the transition economies, structural adjustment programs reduced funding for veterinary departments. Even so, some regions continued to recruit new staff for veterinary services. In Africa, for example, staff numbers in most public veterinary services increased between 1985 and 2003; as a result, the ratio of expenditure on salaries to expenditure on recurrent costs rose to 85:15 in many African countries, compared to an optimal 60:40 (de Haan and Bekure 1991; Gauthier, Simeon, and de Haan 1999). Despite funding reductions, the public services have often continued to provide the full range of services, whether they are of a public or private good nature, thereby spreading their scarce resources, especially operating and investment funds, too thinly. In the transition

economies, the veterinary services shifted from focusing on large herds in collective farms to a livestock population privatized across millions of small farms (box 1.26). Throughout the world, policies of decentralization, while conceptually sound for most decision making, have greatly impaired the veterinary system's capacity to take rapid and coordinated actions in the event of disease outbreaks. Although they are often recommended by international donors, policies integrating the provision of veterinary services with other functions, such as livestock extension and plant health, have also greatly reduced the authority of services to act independently and rapidly in declaring the presence of a disease. Results of these policies are seen in the major outbreaks of Rift Valley Fever in East Africa and Foot-and-Mouth Disease in Southern Africa and South America. They also explain the slow movement in identifying and controlling highly pathogenic avian influenza (HPAI) in East and Central Asia.

Improving Animal Health Services

In view of these developments, reform must provide for:

More efficient division of responsibilities for delivering services between (1) public and private service providers and (2) professional veterinarians and paraprofessionals (lay animal health workers).

- Increased and sustained funding for public sector tasks.
- Greater independence and line authority in the surveillance and declaration of emerging major diseases.

The OIE, the World Organisation for Animal Health, has developed a tool for evaluating veterinary services (http://www.oie.int/downld/Prep_conf_Avian_inf/A_Final_PVS.pdf).

Public/private responsibilities for service delivery. The economic characteristics of each particular service help to define the distribution of responsibilities between the public and the private sector. The public sector should deliver services that are considered “public goods,” which address market failures, externalities, or moral hazards. Government strategy should focus on strengthening the public sector to “do less but better” and to create an enabling environment for private sector development. The “less but better” approach implies that public sector tasks must be supervised but not necessarily implemented by public agencies (table 1.1). This system of “sanitary mandate” should be governed by formal procedures under legally recognized systems, including clear accreditation conditions for private operators. Implemented in this manner, the system will provide a territorial network of competent, logistically independent professionals, acting as ad hoc public service agents and designing and implementing animal health activities at an economic cost that does not compromise the budget of the national veterinary services.

Professional/paraprofessional responsibilities. Animal health services can be delivered more efficiently if responsibilities are distributed more efficiently among professional and paraprofessional veterinarians and lay animal health care workers. For example, herder-auxiliaries or low- and mid-level technicians are important in most private animal health systems, especially in traditional livestock production systems. These technicians

are familiar with local conditions and often are accepted more readily by the local population than public veterinarians. Local technicians also can be critical components of an early alert system for detecting potential disease outbreaks. Although paraprofessionals generally have extensive knowledge of the local situation (including of gender roles), there is a need to distinguish tasks that auxiliaries can undertake from tasks that necessitate official controls to prevent major disease outbreaks, public health threats, or the loss of important markets. Veterinary services should ensure effective communication and supervision between professional (public official or mandated private veterinarian) and paraprofessional animal health providers, and public animal health services should also regulate paraveterinary uses of products that carry public health risks (antibiotics, hormones), disease quarantine risks (attenuated vaccines), or drug resistance risks (antibiotics or trypanocides).

Table 1.1 Economic characteristics and delivery of animal health services

Service	Type of economic good		Sector delivering the service	
	Public	Private	Public	Private
Clinical diagnosis		Private but some consumption externalities		YY
Clinical treatment		Pure private		YY
Vaccine production		Pure private		YY
Vaccination, major contagious diseases	Public because of strong consumption externalities		Y	YY (contracted by public sector)
Vaccination against minor diseases		Private but some consumption externalities		YY
Veterinary surveillance (quarantine, epidemiology)	Public because of strong consumption externalities		Y	Y (contracted by public sector)
Control of veterinary pharmaceutical sales	Public because of moral hazard		Y	Y (contracted by public sector)
Food safety control (meat inspections)	Public because of moral hazard		Y	Y (contracted by public sector)
Veterinary research/extension	Public because of market failure (poverty focused)	Private for commercial purposes	Y	Y (contracted by public sector)

Source: Umali, Feder, and de Haan 1994.

Note: "Y" = Yes, acceptable; "YY" = "Yes, strongly recommended"

Sustained funding. To be efficient in fulfilling their public sector responsibilities to provide early disease alerts, diagnose and control new and re-emerging diseases, and control food safety, public veterinary services need an adequate source of funding. According to OIE standards, “adequate funding” implies at least a continuous line item for veterinary services in the national budget, income from user fees (for example, for certification or quarantine), and a compensation fund that can immediately and adequately compensate farmers for losses involved in destroying (culling) their stock if a contagious disease emerges or re-emerges.

Organization. The capacity to make independent and rapid decisions regarding suspected disease outbreaks is critical for effective and economic disease control systems. Delays in declaring a disease outbreak exponentially increase the risk that the disease will spread. Disease reporting from the field to headquarters should not be delayed by bureaucratic procedures or vetting by decentralized political authorities (which often occurs, for example, in planned economies). Similarly, in reporting disease outbreaks to OIE, national authorities should not be obstructed by pressure from sectors concerned with the prospective secondary effects of an outbreak, such as declining tourism and trade. The reporting of outbreaks must be kept outside the political economy of the country.

Results and Benefits

From the early 1990s to 2000, policy change in Sub-Saharan Africa caused the number of private veterinarians to rise from almost zero to about 2,500 (without significantly reducing the number of veterinarians working in the public services) and created a network of about 10,000 paraveterinarians. In Eastern Europe, a private service system has evolved almost by default (box 1.26). Thanks to strong political support and the availability of subcontracts from vaccination campaigns, Morocco (to cite one example) shifted from a purely public system in 1980 to a system in which about half of the veterinarians are self-employed. Progress has been slower in South and East Asia, where public services are still dominant, but large numbers of paraprofessionals are providing grassroots services, particularly in China and Vietnam.

Box 1.26 Transition economies: privatization of veterinary services

Under the former Soviet Union's centralized economy, most veterinarians were employed by collective farms. In the 1990s, these farms were broken up, and many workers and veterinarians received farm assets. Veterinarians had few alternatives other than to start private practice, although on a small scale, and although their lack of business management experience was a major problem. It took most governments a decade to acknowledge private services and formalize their existence in veterinary legislation. In a few countries, the viability of private veterinary services improved when the state hired veterinarians to run mandated disease control programs. The change in the state's role, from executing veterinary services to overseeing the quality of services, occurred much more slowly.

Source: Schillhorn van Veen 2004

Despite the paucity of data on the financial viability of private professional and paraprofessional practices in developing countries, data from several countries and regions (Kenya, Madagascar, Senegal, Jamaica, China, Eastern Europe, and Latin America) show reasonable financial returns. Some of these data highlight the difficulties of establishing private professional and paraprofessional veterinary practices in marginal areas, as well as the need for producers to improve market access so that private practices can become financially sustainable. Differences of opinion exist regarding the willingness to pay for private animal health services. A “willingness to pay” survey in three states of India showed that the landless poor are willing to pay for good quality services. This finding is confirmed by similar results from other areas, such as Kenya and Ghana, although some areas might encounter cultural or financial constraints.

In a variety of settings, animal health service reforms involving privately operating veterinarians and paraveterinarians have reduced the incidence of animal diseases, including zoonoses; reduced mortality by 45 to 60 percent in cattle and by 20 to 70 percent in small stock; and increased family incomes by US\$48 to US\$300 per year.

Sustainable funding mechanisms and a greater degree of independence in disease reporting by public veterinary services are still rare, although the global community’s current high level of attention to veterinary systems in the framework of controlling avian influenza provides a strong incentive for action. Benefits would include greater protection of public health and fewer direct and indirect economic losses from contagious diseases.

Policy and Implementation Issues

Clarify public and private sector roles. The first step for every policy maker is to define or redefine public and private sector roles, taking into account standards and guidelines from OIE. Experience shows that this complex and sensitive process should involve public debate. Political support for a multiple-agent setup is also critical, because it is often opposed by significant vested interests (such as public employees working at two or more jobs). The outcome of the debate should be codified in clear and enforceable regulations, harmonized with the relevant international (OIE) regulations, and (among other things) should clearly specify the mandate, requirements, modalities, and types of services that can be delegated to different private operators.

Prevent unfair competition. Unfair competition (such as continued subsidization of public services or “moonlighting” by public service veterinarians) is an extremely serious barrier to the privatization of animal health services. It can be addressed by introducing full cost recovery by the public sector for curative and noncompulsory interventions. Given the choice between unreliable public services and high-quality private services, farmers will pay for services. Decentralizing revenue collection, by introducing a revolving account at the district level, also creates a direct incentive for cost recovery.

Recommendations for Practitioners

Investments related to improving animal health systems (box 1.27) should give attention to a range of issues:

- *Training.* Professional veterinary training in most developing countries still focuses on public sector tasks, offers little hands-on skill development, and often neglects commercial and management skills and herd-health management. Training in those areas is critical to the successful restructuring of animal health services, because veterinarians are notoriously poorly equipped in economics and policy areas.

Box 1.27 Potential investments

- Policy analyses and technical assistance in policy reform.
- Strengthening animal health training in universities and training centers.
- Public-private partnerships to strengthen paraprofessional skills.
- Financing for contracted private provision of surveillance systems, food safety inspections, vaccination for major diseases, and other public good services.
- Financial services and incentives for private animal health workers, if employed for public good tasks.
- Public veterinary diagnostic laboratories, information systems, and compensation funds.
- Research and extension on animal production and health.

Source: Authors

- *Human resources.* The quality of paraprofessional animal health workers depends on selecting men and women from the community who have mature personalities and an interest in a part-time occupation, such as shopkeepers and farmers. Paraprofessionals should undergo training in regular short courses (two to six days, because part-time workers cannot afford more time) and should also participate in networks of private veterinarians to enhance the quality and availability of supplies.
- *Extent of privatization.* Some feel that liberalization has gone too far and that inadequate regulatory control over the quality of veterinary treatment has led to indiscriminate use of dangerous substances. Although data show that community health workers perform better than government technicians with respect to drug choice and application rate (Peeling and Holden 2004), it is obvious that an efficient, official veterinary service, operating under a direct chain of command and covering all areas of a country, including marginal areas, is central to any decentralization and privatization reforms.
- *Barriers to imports and distribution of veterinary inputs.* Sales of drugs are important to the financial viability of private veterinarians. Veterinarians should not, however, be given a monopoly on all drug sales, particularly sales of items that pose little or no risk to public health, such as feed additives, anthelmintics, and certain acaricides. Government intervention in the veterinary drug trade should remain normative and regulatory, establishing lists of drugs that can be imported and their mode of distribution (restricted or open).

- *Financial support mechanisms.* Although donors have tried to accelerate the restructuring of animal health services through targeted credit schemes, in some cases the emergence of private animal health workers has occurred spontaneously, partly because credit from pharmaceutical companies provided an important source of funds for private animal health workers. Finally, the sanitary mandate covering several public good tasks, such as training or compulsory vaccinations, can be a key source of financial support.
- *Level of investment.* After some years of neglect, investments in district, provincial, national, and regional diagnostic laboratories are often required, although often there is a tendency to overinvest. There are clear economies of scale from the regionalization of facilities and control companies, although regionalization is politically sensitive. Investments in private veterinary clinics can be modest. Although many prospective private veterinarians argue that they need a car, less expensive means of transport can often serve as well.

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Asterisk (*) at the end of a reference indicates that it is available on the Web. See Appendix 1 for a full list of Websites.

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This investment note was prepared by Cees de Haan, with input from Francois le Gall and the Sustainable Agriculture (SASKI) Thematic Team of the World Bank.

Strengthening the Capacity of Farmer Organizations to Influence Agricultural Policy

Lack of capacity to use economic opportunities and an inability to access resources and services contribute to poverty—a condition that is also profoundly affected by a lack of empowerment. In the competition for economic and political power, the voices of the poor, particularly the rural poor, are usually not heard. Rural producer organizations (RPOs) help address these problems by empowering rural people, building rural social capital, and increasing farmers' voice in public sector decision making. Building this capacity requires identifying rural producer organizations; strengthening their internal governance structures and information systems; developing an active policy dialogue with government agencies; and building technical, strategic, and negotiating capacity of RPO leaders.

In most countries, economic liberalization has been accompanied by political liberalization, which offers new opportunities for action by economic agents, including RPOs. The state's withdrawal from some activities has left a vacuum in the institutional and organizational framework for addressing rural needs. The private sector has filled this vacuum only partially. There is also a need for improved governance in the regulatory environment and the correction of market failures (public goods, externalities).

The adjustment to new economic and market conditions is made more difficult in rural areas by the imbalance of power between poorly organized agricultural producers and powerful public or private operators. This imbalance is largely related to producers' limited access to information and education and to their relative lack of capacity to formulate objectives and define a strategic vision for development. Their participation in public debates on economic and political liberalization often remains symbolic and, in practice, decisions are made without them. Increasingly governments are aware of the importance of having farmers participate in agricultural policy making, and therefore they increasingly support RPO capacity building. Capacity building requires institutional frameworks that recognize farmers' potential role, and mechanisms for them to voice concerns at the local, national, and international levels of policy formulation.

Rural Producer Organizations

In all rural societies, traditional organizations have an inward-oriented or “bonding” function to facilitate collective actions that mitigate the uncertainties of agricultural production and regulate relationships within the group. In contrast, formal producer organizations perform a “bridging” function to organize relationships between the group and the outside world. In the context of developing countries, RPOs typically include elements of traditional and formal organizations. They are rooted in local customs but organized on economic principles. Inclusion is characteristic in traditional groupings, where everyone is inherently a member, but formal producer organizations tend to be more exclusive. RPOs are membership organizations created by producers to provide services. They differ from NGOs, which also provide services to producers but are not necessarily membership based. RPOs can be local and serve only at village and inter-

village levels, or they can operate at regional and national levels (for example, as unions and federations).

Benefits

Many of the world's poor live in rural areas and pursue agriculture or agriculture-related activities as the mainstay of their livelihood. When poor producers band together, they gain bargaining power and may access the services and resources they need to diversify, improve competitiveness, access markets, increase incomes, and equitably distribute associated benefits.

RPOs play an important role in policy dialogue, and in some cases, rural federations are involved with macroeconomic and political issues. Examples include the Indigenous and Afro-Ecuadorian Peoples Development Project (Ecuador) and the Agricultural Services and Producer Organizations Project (Senegal; box 1.28). In both countries, RPOs are at the forefront of a larger civil society movement, advocating political and socioeconomic change. Strengthening the capacity of producer organizations to influence policy in an informed and democratic manner builds social capital that complements investments in other forms of capital—natural, human, physical, and financial. Effective RPOs can improve policy outcomes and the efficiency of rural service providers. Poor people can attain major benefits if they are able to organize themselves effectively.

Policy and Implementation Issues

Multiple functions of RPOs. Typically RPOs perform multiple functions, generally including *advocacy or policy* functions (syndicates or unions), *economic and technical* functions (cooperatives or associations), and *local development* functions (especially when decentralization has not yet taken place and local governments do not exist). Most RPOs address all three functions to varying degrees.

Equity. RPOs are not necessarily inclusive. There may be entry barriers for the poorest of the poor, who lack the minimum assets and, in general, do not belong to formal groups that can help them take advantage of what an RPO can offer. The cost of reaching the unorganized can be high, but projects financed by donors may help RPOs improve inclusion to reach the poorest and make sure that their voices are heard in policy development processes.

Box 1.28 Senegal: strengthening RPO capacity to participate in policy making

The National Cooperation and Consultation Committee of Rural People of Senegal (CNCR, Conseil National de Concertation et de Coopération des Ruraux) was created in 1993 by 19 national federations to represent rural producers in agricultural policy formulation and negotiation processes. CNCR's goals are to: (1) strengthen the unity of the farmers' movement and represent rural producers, (2) defend farmers' interests in decision-making processes regarding agriculture and rural development, and (3) contribute to sustainable development of family farming systems (see <http://www.cncr.org>).

Since 1994, CNCR has been recognized by the Government of Senegal and the World Bank as a partner in preparing and implementing a US\$6 million RPO capacity-building component of the Agricultural Services and Producer Organization Project. CNCR also chairs the board of directors of the National Agricultural Research Fund, and it is an influential member of the board of the National Agency for Agricultural and Rural Advisory Services. CNCR is systematically associated with any agricultural policy formulation in Senegal, and at a regional level participates in West African Monetary Union policy making meetings as a member of the West African Network of Rural Producers Organizations (<http://www.roppa-ao.org>).

Source: Bosc et al. 2002

Resistance to RPO empowerment. Empowering producer organizations should create forces in a society that can lead to a shift in power relationships. Since elite groups may try to counter these forces, wide communication and careful monitoring of ongoing change processes are necessary. Governments and civil servants are likely to resist change because they are afraid of losing control and privileges. Political parties and individuals will try to co-opt the process and use RPOs as vehicles to promote their own agendas. An effective RPO support program should therefore analyze stakeholder interests to identify potential opponents and resistance to reform, and design specific activities that bring about win-win situations.

Incremental process of development. Empowerment of RPOs through learning-by-doing will frequently entail some failures and misuse of funds by the emerging organizations. Appropriate controls and audits are necessary and a phased program of institutional development and delegation of responsibilities is frequently beneficial. Capacity building of producer organizations is a slow and uneven process, regulated by social behavior and cultural norms. Donors may get impatient and force the process artificially, thus engendering unsustainable advances.

Lessons Learned

Identifying organizations to support. Experience indicates that any *membership organization* should be eligible for program support, as long as members are agricultural producers living in rural areas and providing the organization meets three criteria:

- It should be recognized as *useful* (principle of utility) by its members—members must value the ability of the entity to promote beneficial policy.

- It should have an *identity* (that is, a history and effective operating rules) that, even if not formalized, regulates the relationships among its members and between members and the outside world.
- It should be *legally recognized*, with governing bodies functioning effectively. In particular, it should hold regular elections and meetings with accountability mechanisms.

Often the best-established producer organizations are commodity-based associations dominated by large-scale farmers. These are legitimate representatives of the sector, but they do not necessarily represent the interests of small-scale farmers. Still, such organizations usually open membership to smaller-scale farmers to maintain the association's credibility as a representative of all farmers' interests. Public support should encourage such developments and foster the effective integration of small-farmer interests in the association's agenda. Small-farmer influence and participation is facilitated by having local and regional meetings and activities in addition to national activities, and by carrying out programs targeted to the needs of small-scale producers.

Defining what to strengthen. Investments need to help RPOs become more effective at providing the services for which they were created, which often requires improvements in:

- Internal governance structures and accountability mechanisms.
- Internal and external information systems.
- Capacity to articulate members' needs and negotiate.
- Technical and managerial capacity to implement activities.
- Strategic capacities for policy analysis and defining a vision and strategy to achieve objectives.

Establishing a policy dialogue with government. Investments to strengthen RPO capacity need to promote an enabling environment through projects and policy dialogue with government (box 1.29). This effort might entail: obtaining recognition of RPOs from governments and ending mistrust from public services; ensuring that RPOs are seen as full partners in development; and providing up-to-date information to RPOs to facilitate their participation in developing rural development policies and preparing and implementing rural projects. RPOs must be given enough time, resources, and information to prepare effectively for participation in these activities.

Box 1.29 Colombia: The Colombia Coffee Growers Federation

The Colombia Coffee Growers Federation (Federación Nacional de Cafeteros de Colombia) represents approximately 250,000 farms with the objective of serving the welfare of the country and promoting the economic and social well-being of Colombian coffee growers. The Federation engages in activities such as transport, coffee storage, agricultural research, and public works programs. The Federation has a democratic hierarchy based on Municipal Committees that are democratically elected. Managers are accountable to the democratically elected Coffee Congress. The large volume of coffee produced means that producers can achieve economies of scale and have effective negotiating power. The Federation has demonstrated considerable political influence. The Coffee Fund, financed from membership fees and a levy on production, is large

enough to influence Colombia's macroeconomy. As a result, the Federation works in consultation with the government to manage this fund. Some Committees have negotiated with local government to put up 30 percent matching funds for local projects.

Source: Bosc et al. 2002

Legitimacy. RPO leaders may be isolated from their base and lack accountability to their members. Although programs to strengthen RPOs are intended to resolve these problems, access to funds and services may still be available only to RPO leaders—often the local elite—to the detriment of members. To mitigate such risk, support programs for RPOs should be advertised extensively to ensure that those who have problems accessing the information, often the poorest, are aware of the fund's existence. Close monitoring and systematic evaluation are essential.

Allow self-management of funds. Providing a flexible development fund or demand-driven services linked to a productive investment fund allows RPOs to define activities to be financed and determine the timing and pace of implementation. RPOs manage the funds they have been granted and typically are able to select service providers from a list of regularly certified vendors. Such a funding mechanism requires that donors, RPOs, and the government agree on procedures and criteria for RPOs to access funds. To ensure compliance with procedures and quality of services, close monitoring is required, as well as systematic, random, and postactivity audit by government and/or donors.

Recommendations for Practitioners

There is no blueprint for supporting RPO development to improve policy analysis and advocacy capacities, as each effort must be tailored to country circumstances (especially the political environment) and the characteristics of RPOs in that country. However, one principle applies: support should empower RPOs—not make them instruments of donor or government policy. Key recommendations for investment include (box 1.30):

- Guarantee equal access to all RPOs that meet funding criteria, and accept the limitations of RPOs—work with them at their pace in a “learning-by-doing” manner.
- Concentrate on agreed-upon, transparent decision-making processes and procedures, and let RPOs decide the nature of the activities they want to finance.
- Target activities that RPOs have chosen and that fit within their working capacity.
- Ensure that supported RPOs are legally registered, with transparent governing rules, procedures, accounting, and reporting systems.

Box 1.30 Potential investments

- Legal and regulatory reforms to facilitate rural producer organization growth.
- Assistance to national or regional federations to (1) train leaders and members and (2) build strategic planning skills and develop operation and management procedures.
- Study tours and exchange visits.
- Assistance in forming local, regional, and national RPO consultative forums.
- Demand-driven funds to finance, on a matching grant basis, RPO services, programs, and productive investment.

Source: Authors

- Guarantee independence from government or donor agencies, yet develop a strong and active policy dialogue with relevant government agencies.
- Promote a conducive legal environment with laws and regulatory systems that promote growth and recognition of RPOs.
- Promote effective decentralization and deconcentration of public services to provide a basis for empowering local communities.
- Promote a dialogue among donor agencies to harmonize approaches and procedures in support of RPOs.

Selected Readings

Asterisk (*) at the end of a reference indicates that it is available on the Web. See Appendix 1 for a full list of Websites.

- Bosc, P., D. Eychenne, K. Hussein, B. Losch, M.-R. Mercoiret, P. Rondot, and S. Mackintosh-Walker. 2002. "The Role of Rural Producer Organizations in the World Bank Rural Development Strategy." Rural Development Strategy Background Paper 8. World Bank, Washington, DC.*
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This investment note was prepared by the sourcebook team, based on the Agricultural Technology Note "Investing in Rural Producer Organizations" by Pierre Rondot.

Bulgaria: Adjustment Lending in a Transitional Economy

Bulgaria has a diversified agriculture, with fertile soils and favorable climatic conditions. By the end of the communist period in 1989, 90 percent of the land was in large cooperatives or agroindustrial complexes averaging 24,000 hectares. Input use was intensive and livestock production was highly subsidized.

What's innovative? Agriculture sector adjustment reform in a transitional economy—privatization, commercialization, land and financial sector reform.

After 1990, priority was given to dismantling large production complexes and to distributing land and nonland assets, including livestock, to former owners. Most input prices were decontrolled. However, new owners often were ill-equipped to manage their new assets, and price controls (together with export controls and taxes) were maintained on outputs to keep food prices low for the urban population. This practice led to large illegal exports and shortages, especially in grains. There was great instability in the trade regime, and import tariffs for fertilizer, a key input, were high. Fertilizer use declined by 75 percent. In 1997, agricultural production was only 45 percent of the 1989 level. State intervention in cereal marketing and credit continued. By the mid-1990s, both macroeconomic imbalances and lack of structural reform caused a financial crisis.

A new government was elected in 1997 with a strong commitment to market reform. The government eliminated export bans and controls on agriculture and food profit margins, eliminated most import quotas and duties on cereals, liberalized markets, and abolished subsidized agricultural credit.

Project Objectives and Description

The ASALs I and II sought to promote efficiency in agriculture, help generate rural employment, improve living standards, and provide more consumer choices by:

- Developing an active land market.
- Developing a grain market by privatizing the grain marketing agency and limiting the operations of State Grain Reserves.
- Privatizing agroindustrial and processing firms, including grain mills, seed, and food industries.
- Privatizing irrigation systems by decentralizing operations management and maintenance to water user associations.
- Improving agricultural financing to rural areas by private providers.
- Liberalizing trade, improving market regulations, and increasing competitiveness of tradable commodities.
- Improving forest legislation and increasing community-based participation in forest management.
- Supporting Bulgaria's accession to the EU.

Benefits and Impacts

Both loans were one-tranche operations, supporting a program of about two years. The government took all of the designated steps before each loan went to the Board. A key feature of Bulgaria's adjustment program was that it had the full support of the elected government and parliament. Another feature was the Bank's willingness to adjust the condition related to state grain reserves in response to perceived risks of food shortages over the period of the loan by the Bulgarian Government, in light of tensions in Kosovo.

Under ASAL I and II, Bulgaria transformed itself, in a very short period, from having one of the worst agricultural trade regimes to one of the most open in the region. The loans also had significant institutional development impact through privatization in the areas of grain marketing, input marketing, and farmer services—all key steps toward EU accession. Grain crop production in 2002 was 4 million tons (the highest since the start of reforms), partly because the ASAL supported greater access to high-quality seed and fertilizer for farmers. Land market development led to an increase in land transactions of about 190 percent in 2000-01.

These achievements are particularly significant given the politically challenging nature of the reforms. Strong borrower ownership, with constructive dialogue between the Bank, borrower, and other stakeholders, and high-quality economic sector work contributed significantly to this success and to the likely sustainability of the outcomes.

Despite agriculture's superior performance compared to the economy as a whole, major problems remain. Rural poverty reduction cannot be determined. The privatization of agroenterprises and institutional changes in irrigation provision have not yet revitalized these subsectors (irrigation requires an investment program). Agricultural exports have declined because competitors are providing higher-quality products, and neither land markets nor rural finance are yet stimulating the rural economy as desired. These shortcomings notwithstanding, the country has continued to stay on track in its bid for EU accession, fulfilling one of the top policy priorities.

Lessons Learned and Issues for Wider Applicability

- Timely, high-quality sector work is essential. The Bank began analytical work two full years before the ASAL I was approved. Policy notes effectively engaged the government and other stakeholders, to build support and consensus for difficult broad reforms. Process and substance are equally important.
- The timing of Bank interventions was important. Constructive disengagement when the policy environment was poor, prior to 1997, helped develop credibility with a new government that was serious about economic reforms.
- The "big bang" approach for transitional economy reform can work under the right conditions, with the caveat that this success followed a long period of slow or no change.
- Single-tranche adjustment can work when there is strong commitment and when undertaken within a well-elaborated, medium-term framework. Moreover, single-

tranche loans are more flexible than multitranche loans since they avoid locking into legal conditions and policy targets that may not be fully supported by the government.

The project shows the positive impact of the Bank's proactive and constructive engagement with the borrower, ensuring progress on all reform package elements, and preventing backsliding in key areas. However, a major issue is whether greater priority should have been given to targeted poverty reduction in a rural sector with a serious and increasing poverty problem.

Country	Bulgaria
Project Name	Agricultural Sector Adjustment Loan (ASAL I and II)
Project ID	ASAL I: P057925, and ASAL II: P057926
Project Cost	ASAL I: US\$75.8 million, and ASAL II: US\$50.0 million
Dates	ASAL I: FY 2000 – FY 2001, and ASALII: FY 2002 – FY 2003
Contact Point	Henry Gordon The World Bank, 1818 H Street NW, Washington D.C. 20433 Telephone: (202) 473-2961; Email: Hgordon@Worldbank.org

Ecuador: Commodity Chain Consultative Councils for Policy Formulation

Ecuador's agricultural sector is characterized by a variety of production systems—both temperate and tropical—and a natural resource base with high production potential. It has a very competitive export sector—banana, flowers, and shrimp—as well as a large traditional smallholder sector producing rice, potatoes, coffee, cacao, maize, and livestock. Agriculture is characterized by low productivity even in the export sector, and most growth over the past 30 years has come from the expansion of agricultural area.

What's innovative? Use of newly collected data to bring together stakeholders into market chain consultative councils for policy dialog and sector development in collaboration with the government.

Widespread improvement in agricultural productivity will require the government to provide key public goods, including information on which farmers, traders, processors, and financial institutions can base decisions. Improved information is equally important to the Ecuadorian Government, as it moves away from past broad-based programs to more targeted interventions aimed at helping the poor. Unfortunately the information base for public policy has been weak. The last agricultural census was conducted in 1974, so the data no longer provided a sound basis for decision making. An improved database was essential for sound policy formulation and development of business plans.

Project Objectives and Description

The Agricultural Census and Information System Technical Assistance Project aims to improve the availability, consistency, validity, and timeliness of agricultural information to facilitate decision-making processes in the public and private sector. The project includes four components:

- An Agricultural Policy Component to strengthen sector policy analysis capacity, budget analysis, and investment monitoring.
- An Agricultural Information and Dissemination Component to improve crop and livestock information services, market news and price information, agroclimatic impact forecasts, and the computer and information system capacity of the Ministry of Agriculture.
- An Agricultural Sample Census Component to support design and execution of a national sample census and strengthen data processing capabilities.
- An Agricultural Farm Production Survey Component to improve production survey methodology, speed processing of two surveys per year, and finance one farm expenditure survey.

Benefits and Impacts

The project financed the 2002 Ecuadorian Agricultural Census, which has provided abundant data on the agricultural sector and various commodity subsectors. As part of the process of analyzing and interpreting these data, the Ministry facilitated the formation of Consultative Councils for eleven subsectors (coffee, banana, potato, dairy, and others). Each Consultative Council is composed of producers, traders, input suppliers, exporters or processors, and key ministry officials.

The Councils met originally to review data from the census. The census information was a critical motivating factor in forming the councils, because it filled a void where there had been little hard data on the size and characteristics of the subsectors. Much of the census data were originally controversial, as the data conflicted with prior views and assumptions on the sector. The Councils helped to verify and interpret census information and to promote awareness and use of the data. Councils continue to meet to discuss and seek solutions to subsector problems and to represent subsector interests with the government.

The main contribution of the Councils has been to facilitate dialogue between the government and the various actors in the production chain (producers, marketers, processors, exporters, and importers). Use of up-to-date, reliable information has enabled these groups to agree to manage the production chains in a rational and efficient way. Agreements have been reached on milk prices and imports, maize prices, soybean imports, and various other commodities.

The major factor contributing to the success of the 14 Councils has been their ability to discuss policy options based on factual data. The formation of the Councils was not defined in the project design but was introduced later and seen as an opportunity to make better use of and to confirm the validity of census data.

Lessons Learned and Issues for Wider Applicability

The Councils provide a mechanism for intervening to address problems, as all participants in the subsector are represented. This broad representation in some cases enables the Council to negotiate or initiate action to address a problem, whereas the government acting alone—with its limited capacity—would be unable to intervene effectively.

The Councils will continue with the active encouragement of the government, which will consider promoting the formation of Consultative Councils for other subsectors as needed. Future modifications of the Consultative Council structure will likely increase the representation of smaller farmers.

Consultative Councils based on commodity market chains and industry clusters would be useful in most countries as a mechanism for consultation between the public and private sectors, and between different private sector stakeholders in a commodity production and marketing chain. Linking such Councils with data from an Agricultural Census or other

analytical work on a subsector may be useful to encourage participation and provide coherence for initial Council meetings.

Country	Ecuador
Project Name	Agricultural Census and Information System Technical Assistance Project
Project ID	P077949
Project Cost	US\$4.8 million
Dates	FY1999 - FY 2004
Contact Point	Matthew McMahon The World Bank, 1818 H Street NW, Washington D.C. 20433 Telephone: (202) 473-8586; Email: Mcmahon@worldbank.org

Turkey: Hybrid Adjustment/Investment Lending

In the late 1990s, one of the most critical issues in Turkey's agricultural sector was the inefficient and costly system of agricultural support policies. Subsidies for fertilizer, credit, and price supports (mainly for sugar, hazelnut, and tobacco) were distortionary and failed to enhance productivity growth. These agricultural policies favored larger-scale farmers, were a heavy burden on consumers and taxpayers, and contributed to Turkey's macroeconomic problems. Reforming this system was a primary goal of a dialogue initiated with Bank policy notes and workshops in 1998, leading to the inclusion of agricultural policy reform elements in the Bank's Economic Reform Loan, effective 2000, and in an IMF macroeconomic stabilization package. The reforms are also important to assist the government in meeting preconditions for EU accession. Recent work in Turkey highlights the latest use of hybrid lending, moving the reform agenda forward quickly, but requiring "hands-on" coordination to ensure success.

What's innovative?
Agricultural sector reform through a hybrid loan with an adjustment component supported by investment components.

Project Objectives and Description

The Agricultural Reform Implementation Project (ARIP) evolved from the Economic Reform Loan to ensure sustainability of the reforms, including the institutional change and the formation of sustainable institutions.

Two-thirds of the loan is for an investment program with objectives to:

- Substitute subsidies with an incentive-neutral support system of Direct Income Support (DIS) payments, made on a per hectare basis to partially mitigate adverse impacts on income when distortionary subsidies are removed.
- Facilitate farmers' transition out of tobacco and hazelnut production through per hectare grants for switching to alternative crops (such as maize, soybeans, sunflowers, beans, vegetables, and medicinal plants) and to more efficient production patterns.
- Promote more efficient cooperative marketing channels by assisting the execution of the Law on Agricultural Sales Cooperatives, through restructuring and cooperative development programs and financing labor retrenchments.
- Build public support for politically sensitive reforms.

One-third of the loan is adjustment lending that seeks to enable the government to make up some of the anticipated shortfall in funds needed for the critical first rounds of the DIS payments in 2001-03.

Benefits and Impacts

A recent supervision report noted that the government is on track with key elements of the ARIP-supported program. With payments to over 2.18 million farmers, more than 50 percent of all DIS-eligible farmers were paid under the 2001 DIS Program, exceeding by

four-fold the target 12.5 percent of all farmers to be paid. In 2002, direct and indirect agricultural subsidies (not including DIS) totaled US\$1.1 billion, compared to US\$7.2 billion in 1999. No new subsidies have been introduced.

The uptake of farmer transition grants has been slow, because farmers are uncertain that hazelnut and tobacco support prices are being removed permanently. As government credibility on this improves, uptake of this component should increase.

After a slow start, the Agricultural Support Cooperative Union reform program has had some success, but progress in two of the largest unions is uneven. Turning the unions into true member-owned cooperatives is still incomplete because this takes time.

Lessons Learned and Issues for Wider Applicability

In the political economy of reform, “a spoonful of sugar helps the medicine go down.” Combined adjustment and investment lending may provide the appropriate mix—drawing the attention of higher-level government officials through adjustment components while also providing needed long-term investment. Typically adjustment lending is negotiated through the Ministry of Finance, whereas policy (and painful reforms) are implemented by line ministries. Adding an investment component makes these often-painful adjustments more palatable to all parties involved and can prove particularly beneficial for reforms affecting the rural sector. In the past, hybrid lending was tried and discarded because of the mismatch in time frames for these two instruments, but the recent evolution in approaches increases the likelihood that they can prove positive complements for policy reform.

Lessons learned include:

- Laying a base for policy dialogue pays off, even if advice is not adopted right away.
- Conditionality must be clear and straightforward, with strong government ownership.
- Given the macroeconomic implications of agricultural subsidies, cooperation with the IMF and integration of other Bank operations is helpful. The Bank took part in all key meetings; the Fund integrated key agricultural policy reforms into its program.
- For policy reform, a hybrid loan has important advantages over pure investment or adjustment loans. Preparing and supervising investment components keeps Bank staff involved in program details and facilitates early resolution of design and implementation problems. The budgetary support aspect of an adjustment loan allows more Bank engagement in policy dialogue, compared to a pure investment operation.
- The investment portion of a hybrid loan makes it significantly more resource-intensive than a straight adjustment loan and requires “hands-on” attention by the Bank.
- Giving farmers a range of options, rather than selecting an alternative crop in advance, was wise. A selection menu encourages adoption of and participation in programs.
- Cooperatives financed and directed by government often degenerate and lose efficiency and member participation. Member ownership and participation and relevance of services are key to sustainable development of such cooperatives.

Country	Turkey
Project Name	Agricultural Reform Implementation Project
Project ID	P070286
Project Costs	US\$662.0 million
Dates	FY 2002 – FY 2006
Contact Point	Mark Lundell The World Bank, 1818 H Street NW, Washington, D.C. 20433 Telephone: (202) 458-4655; Email: mlundell@worldbank.org ;

Guinea: Livestock Sector Partnership—Public Sector Herder Organizations and the Private Sector

Guinea has a strong pastoral tradition. More than 2.2 million cattle and 1.5 million small ruminants are kept by 210,000 households. Before 1984, the livestock sector was overwhelmingly dominated by the public sector. The government set cattle prices and imposed a mandatory off-take of 10 percent from each herd. The livestock public sector was overstuffed, highly centralized, poorly trained, and unable to provide adequate services to herders.

What's innovative? Reform of livestock services, including development of a community system of paraprofessionals, private sector services, and public sector policy formulation.

From 1987 to 1995, a structural adjustment program for national livestock services rationalized the sector and prepared for future transfer of productive and commercial functions to herders and the private sector. The public sector terminated 1200 government jobs, retraining dismissed agents as producers or animal health service providers. A line of credit, training plan, and study tours supported this reorientation. The government transferred state-owned clinics to the private sector, where private veterinarians demonstrated greater efficiency with better cost/benefit ratios. Herder organizations were formed to facilitate easier access to basic livestock services.

Project Objectives and Description

The National Agricultural Services Program helped to establish a new animal health services system based on (1) a rationalized, restructured public sector, progressively deconcentrated and refocused on core public functions; (2) a growing network of private service providers; and (3) herder organizations structured around socioeconomic objectives. The program established or facilitated:

- A unique mechanism for generating and diffusing technologies at the grassroots level through private agents (paraprofessionals such as auxiliaries or paravets) within herder communities to offer basic animal health services and broader livestock services.
- An environment conducive to national and foreign private firms to supply wholesale inputs and livestock products.
- Private veterinary clinics to help paraprofessionals in herder groups to distribute inputs.
- Coverage of the country's main livestock zones by private veterinary clinics and private input providers to respond to the herders' ever-increasing demands.
- Downstream construction of small commercial animal and meat markets for processing livestock products and subproducts (for example, hides and skin for exports).
- Strong involvement of herder organizations in production commodity chains.

- Lighter, less concentrated public management of livestock sector institutions.

With this project, the National Directorate for Livestock (DNE) focused again on its public service mission and completed the transfer of animal health care and input distribution to the private sector. The DNE remained responsible for policy making, supporting the development of herder and other professional organizations (including research and extension), and ensuring epidemiological surveillance and control.

Benefits and Impacts

The program put in place a nationwide livestock services system (for input delivery, technology transfer, advocacy, and training) based on private delivery (veterinary clinics, private farms, and paraprofessionals). This intervention improved the efficiency of services and strengthened social linkages in transhumance zones of conflict (table 1.2). Stronger herder organizations and the presence of private operators improved demand for and quality of services to such an extent that the total numbers of auxiliaries nationwide is expected to reach 21,000 in the near future—a 1:10 ratio of auxiliaries to herders, compared to a 1:20 ratio today.

	Pre-1987	2000
Herder associations	0	1050
Private veterinarians	0	42
Auxiliary animal health workers	0	11,800
Government livestock agents	1800+	691
Government livestock staff in cities	1080+	55
Source: World Bank internal documents		

Reforms contributed to annual growth in the livestock sector of 5.6 percent, growth in livestock numbers from 2.4 to 3.5 million, and an increase in meat production of 12,750 tons. The coverage of basic animal health care services improved for herders, and additional employment was created. Annual fiscal revenues from the sector rose, and herder organizations have been able to pay for basic services, thus ensuring the sustainability of the investment in the sector. With the privatization of two state agencies, the private sector is now solely responsible for distributing animal health products.

About 1050 groups received support (primarily capacity strengthening) from the DNE. In addition, DNE provided support to more than 200 departmental, provincial, regional, and national coordination committees. A total of 54 conflict management committees were established in transhumance migratory areas to help resolve conflicts between farmers and herders.

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Lessons Learned and Issues for Wider Applicability

The Guinea experience can serve as a model for rehabilitating the livestock sector. Specific strategies and investments will vary depending on local situations, but four conditions are likely to be required for any reform initiative to succeed:

- Reform is a long-term process that spans the life of more than one project. It requires the adoption of an agreed approach by all concerned parties to be successful. The

case of the livestock reforms is such an example. It has taken over a decade to implement and has broad support of all involved.

- Working through existing national directorates instead of project units, and using civil servants instead of contractual personnel for project implementation, strengthens government's capacity and ownership.
- The government's political buy-in is an absolute necessity for a major privatization initiative to be implemented successfully. Buy-in can be achieved by demonstrating up-front that privatization can be a win-win proposition, as in the case of the DNE.
- Motivating and equipping staff to leave the public sector is not achieved merely through training. A sound program must also assist concerned staff during the transition.

Country	Guinea
Project Name	National Agricultural Services Program (Livestock Health and Animal Health Component)
Project ID	P001081
Project Component Cost	US\$5.9 million
Dates	FY 1997 – FY 2001
Contact Point	Francois Le Gall The World Bank, 1818 H Street NW, Washington D.C. 20433 Telephone: (202) 473-0355; Email: Flegall1@worldbank.org

India: Using a Public Expenditure Review of the Irrigation Sector to Assess the Fiscal Impact of the Maharashtra Water Sector Improvement Project

Appropriate operations and maintenance (O&M) are critical to the longer term sustainability of the rehabilitation investments to be supported by the Maharashtra Water Sector Improvement Project (MWSIP) and the State Government of Maharashtra overall. During the concept note review for the project, Bank management raised concerns about the adequacy and quality of the Irrigation Department's (ID's) expenditures on O&M, especially because inadequate O&M was the main cause of rapid deterioration in existing irrigation systems. Bank management also raised concerns about the state government's weak fiscal position and its capacity to absorb the project's additional fiscal demands. Should project preparation move ahead if the state government lacked the capacity to meet the counterpart funding requirements? Additional questions were raised about the level of cost recovery through water fees in Maharashtra and the additional fiscal burden that inadequate cost recovery might impose on state finances. To address these concerns, the project team agreed to undertake a public expenditure review (PER) of Maharashtra's irrigation sector.

Public Expenditure Review: The Process

The public expenditure review was a multisectoral undertaking. It drew upon and analyzed data from the Department of Finance (DoF) on economywide expenditures and data from the ID on irrigation expenditures and staffing. South Asia Procurement (SASPR) colleagues provided valuable assistance to the project team in assembling information from, and discussing information with, senior DoF officials regarding the state's Medium Term Fiscal Restructuring Framework (MTFRF) and the fiscal implications of the project's irrigation investments. The review also entailed working with senior ID officials to prioritize medium-term plans for irrigation capital expenditures (outside the project area) and to examine planned ID staff reductions for consistency with the MTFRF. To examine the level and quality of O&M expenditures, the project team worked closely with the ID to assemble annual scheme-wise O&M expenditure requirements (maintenance work and staff costs), actual O&M expenditures, water fee assessments, and the actual amount of water fees collected. These data provided the basis for assessing the project's fiscal impact.

The Findings

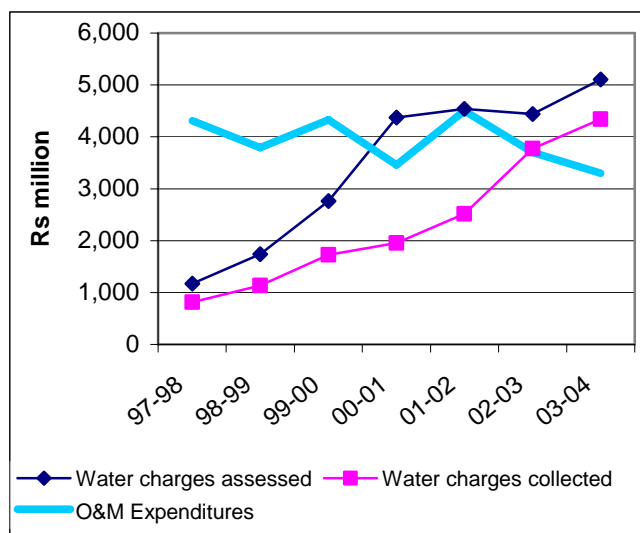
Full recovery of O&M. Recognizing that adequate funding for O&M was integral to sustaining irrigation infrastructure, the ID had already taken steps to rationalize expenditures and improve revenue generation so that more funds would be available for O&M. To deliver irrigation services more cost effectively, the ID had adjusted water fees towards full recovery of O&M costs and had also reduced staff costs. In 1998 the state government approved a resolution governing the annual adjustment of water fees for agriculture and other users in the state. The schedule of price adjustments was designed

so that water fees would eventually cover all annual O&M expenditures and some of the interest on loans. In 2001, the state government raised water rates by 15 percent annually from September 2000/01 to 2004/05. This policy, recently extended by the ID to 2007/08, effectively removed any political influence over irrigation water pricing in the state. By 2002/03, the additional revenues arising from the price adjustments fully covered O&M expenditures by the ID (figure 1.1).

The collection of water fees remains a concern, however, especially from the agricultural sector. Whereas 93 percent of water fees from the industrial and drinking water subsectors were collected in 2003/04, the collection of fees from the agricultural sector declined from 78 percent in 1998/99 to 51 percent in 2003/04. Fee collection in the agricultural sector is complicated by the poor delivery of irrigation services, which is a result of extensive deterioration in infrastructure. Several reforms supported under the MWSIP would contribute to increased collection efficiency and reduce the need to increase water rates in the future: sharing irrigation system management with water user associations (WUAs), supplying water in bulk to WUAs, and transferring responsibility to WUAs for collecting water fees. Experience in the WUA pilot projects supported by the ID indicates that when water is supplied in bulk quantities, fee collection rates are very high, sometimes 100 percent.

If more costs are to be recovered from users, irrigation services must be delivered more cost effectively. Between 2000/01 and 2003/04, the number of staff in the ID and Irrigation Development Corporations (IDCs) declined by 3100, primarily through retirement, reducing staff costs by about Rs782 million. Within the ID, about 11,650 positions out of a total of more than 50,000 have been identified as redundant. Of these, 5074 posts have been abolished. The remainder are in the process of being eliminated. The ID and IDCs project further reductions in staff and costs. The project will support the development of a standardized methodology for estimating O&M requirements (staff and maintenance work) that will serve as the basis for setting water rates in the future.

Figure 1.1 Water fee revenues and collection, Maharashtra



Source: ID, State Government of Maharashtra

Simulating the fiscal impact of alternative water pricing and collection strategies. The net impact of changes in water fees as well as O&M expenditures was examined under four scenarios in which the annual increase in water fees was assumed to remain at 15 percent: (1) 100 percent collection efficiency from all sources; (2) continued collection

rates of 50.5 percent for agricultural uses and 93 percent for nonagricultural uses; (3) an increased collection rate of 80 percent for agricultural uses, with no change in the rate for nonagricultural uses (93 percent); and (4) an increased rate of 90 percent for agricultural uses, with no change in nonagricultural uses (93 percent). In all four scenarios, projected revenues exceeded the required O&M expenditure. By 2009/10, at 100 percent collection efficiency, an estimated net surplus of Rs3.3 billion is generated. At about 90 percent collection efficiency for agricultural as well as nonagricultural uses, an estimated net surplus of about Rs2.5 billion is generated.

There is some concern that the substantial 15 percent yearly increase in water fees may adversely affect poor farmers, the competitiveness of agriculture and industry, and the welfare of drinking water consumers. To gain a better understanding of how different adjustments in water rates might affect cost recovery, two additional scenarios were explored, in which rates increased by 5 percent and 8 percent annually (table 1.3). An 8 percent rate increase allowed for full cost recovery of projected O&M expenditures under all collection efficiency rates. A 5 percent adjustment rate per year resulted in a net surplus only if 100 percent of fees were collected; net deficits occurred at lower collection rates. Results of the simulations emphasize the importance of adopting a standardized methodology for obtaining current data on O&M requirements and using that information to guide water rate adjustments from year to year.

Table 1.3 Simulations of the fiscal impact of alternative water rates

Scenario	Actual	B.E.	Projected				
			2005/06	2006/07	2007/08	2008/09	2009/10
I. 8% water rate increase per year	2003/04	2004/05					
1. 100% collection	1,804	1,558	1,551	1,554	1,572	1,602	1,675
2. 50.5% irrig./93% all other uses	1,042	677	600	527	463	404	381
3. 80% irrig./93% all other uses	1,323	1,001	950	906	871	845	857
4. 90% irrig./93% all other uses	1,419	1,111	1,069	1,034	1,010	995	1,019
II. 5% water rate increase per year							
1. 100% collection	1,804	1,558	1,374	1,176	968	744	532
2. 50.5% irrig./93% all other uses	1,042	677	449	206	-51	-327	-592
3. 80% irrig./93% all other uses	1,323	1,001	789	563	324	68	-178
4. 90% irrig./93% all other uses	1,419	1,111	905	684	451	201	-37

Source: Author

Project impact on state capital expenditures and finances. The PER analysis showed that over the five years from 1999/00 to 2003/04, irrigation sector expenditures, including off-budget borrowing, debt servicing repayment support, and recurrent expenditures, formed 48 percent (1999/00) to 80 percent (2003/04[RE]) of capital expenditure. Table 1.4 shows the projected shares of irrigation expenditure in capital outlay, based on projections of capital and recurrent expenditures prepared for the ID and IDCs. When the state government's share in MWSIP is included, expenditures for the irrigation sector range between 63 and 76 percent of the total resources available for capital outlay, which is a fairly high share, given the possibly high capital requirement from for other sectors that have been neglected in the past.

Table 1.4: Projected share of irrigation expenditure to total capital outlay, Rs million

	2005/06	2006/07	2007/08	2008/09	2009/10
MWSIP	200	366	385	338	262
Irrigation sector (capital)	24056	25709	27468	29330	31256
IDCs (recurrent)	10407	11448	12593	13852	15237
ID (total)	34,663	37,523	40,446	43,520	46,755
State government capital outlay (projection)	33390	38570	54120	57840	62120
State government off-budget borrowing	20000	20000	20000	20000	20000
Total state government capital outlay	53390	58570	74120	77840	82120
Irrigation sector share	63%	66%	73%	74%	76%
MWSIP share	0.37%	0.62%	0.52%	0.43%	0.32%

Source: DoF, ID, State Government of Maharashtra data

The difficulty of providing irrigation with such a high share of the projected capital outlay is real. Although the share of MWSIP is very small (0.6% or less of the projected capital outlay) per year, it is critical for the ID to make a realistic reassessment of capital expenditures for itself and the IDCs, for example, in the range of 40 to 45 percent. The DoF shared the opinion that other ID projects needed to be scaled down in view of the financing constraint. The constraint may get tighter if the state government's fiscal projections are not realized, as occurred in happened in the 2002/03 to 2004/05 MTFP.

Lessons Learned

The irrigation sector PER was an important tool for clarifying the fiscal impact of the project and helping to allay Bank management's concerns regarding the availability of counterpart funding. The PER also confirmed the significant progress made by the state government in achieving full cost recovery of O&M expenditures and by the ID in achieving a better balance between maintenance work and staff costs. Notably, Maharashtra is the very first state in India to implement full cost recovery of O&M, and the PER helped to convince management of the project's fiscal feasibility.

Although the PER was specific to the irrigation sector, colleagues specializing in macroeconomics were extremely important in supporting the analysis of statewide expenditure data, in facilitating access to DoF officials, and in pursuing the policy dialogue with them on the MTFRF and its links with development plans in the irrigation sector. This cross-sectoral collaboration also helped to build broader ownership of the project.

The PER also highlighted the importance of integrating expenditure information at the scheme level into the ID's management information system. This integration will enable easier and more timely access to expenditure data, which can contribute to more effective policy making (for example, estimating O&M and formulating water rates), planning, and implementation.

Country	India
Project Name	Maharashtra Water Sector Improvement Project
Project ID	P084790
Project Component Cost	US\$393.77 million
Dates	FY 2006 – FY 2012
Contact Point	R.S. Pathak World Bank Office, New Delhi, India Telephone: 5785+155 Email: rpathak@worldbank.org
Project Objectives	To strengthen the state's capacity for multisectoral planning, development, and sustainable management of water resources and improve irrigation service delivery and productivity of irrigated agriculture.
Project Components	The project will assist the Government of Maharashtra in three key areas. It will support the strengthening of the state's capacity for multisectoral planning, development, and sustainable management of water resources, particularly through the establishment of a state water resources regulatory authority and the transformation of the five Irrigation Development Corporations into river basin agencies. It will improve irrigation service delivery by creating water user associations (WUAs) in about 286 irrigation schemes and restructuring the Irrigation Department to enable greater user involvement in the management of surface irrigation systems. It will finance the rehabilitation of the 286 major, medium, and minor schemes that will be transferred to the WUAs. In addition, agricultural support services in the project area will be strengthened to improve the productivity of irrigated agriculture and the on-farm use of water. Finally, the project will support innovative approaches such as user-centered groundwater management pilots at the aquifer level, which will aim to foster more sustainable groundwater use, and pilots for commercial management of irrigation schemes as an alternative institutional mechanism to improve irrigation service delivery and irrigated agriculture.