

HOW DO WE IMPROVE PUBLIC EXPENDITURE IN AGRICULTURE?



A SYNTHESIS REPORT OF THE UK DEPARTMENT FOR INTERNATIONAL
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“PUBLIC EXPENDITURES FOR PRO-POOR AGRICULTURAL GROWTH”

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FOR INTERNATIONAL DEVELOPMENT

HOW DO WE IMPROVE PUBLIC EXPENDITURE IN AGRICULTURE?



THE WORLD BANK



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Cover photo: Scott Wallace—Men hoeing rice paddies on an irrigation project, Mtwango District, Tanzania.

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ACRONYMS AND ABBREVIATIONS

AgPER	Agriculture Public Expenditure Review
ARD	Agriculture and Rural Development
BCF	Budget Cycle Framework
CAADP	Comprehensive Africa Agriculture Development Programme
DADU	District Agricultural Development Unit
DFID	United Kingdom Department for International Development
EU	European Union
GDP	Gross Domestic Product
IFPRI	International Food Policy Research Institute
IMF	International Monetary Fund
LCR	Latin America and the Caribbean
LGA	Local Government Authority
MTEF	Medium-Term Expenditure Framework
M&E	Monitoring and Evaluation
NEPAD	New Partnership for Africa's Development
NGO	Non-Governmental Organization
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PER	Public Expenditure Review
PETS	Public Expenditure Tracking Survey
SOE	State Owned Enterprise
SSA	Sub-Saharan Africa
T&C	Transportation and Communication

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The background paper for the report was presented at a global consultative workshop in May 2009, in Addis Ababa, which involved technical officials from several donor organizations and from governments in Africa, Asia, and Latin America. The final draft of the report was presented in a workshop at DFID in June 2010.

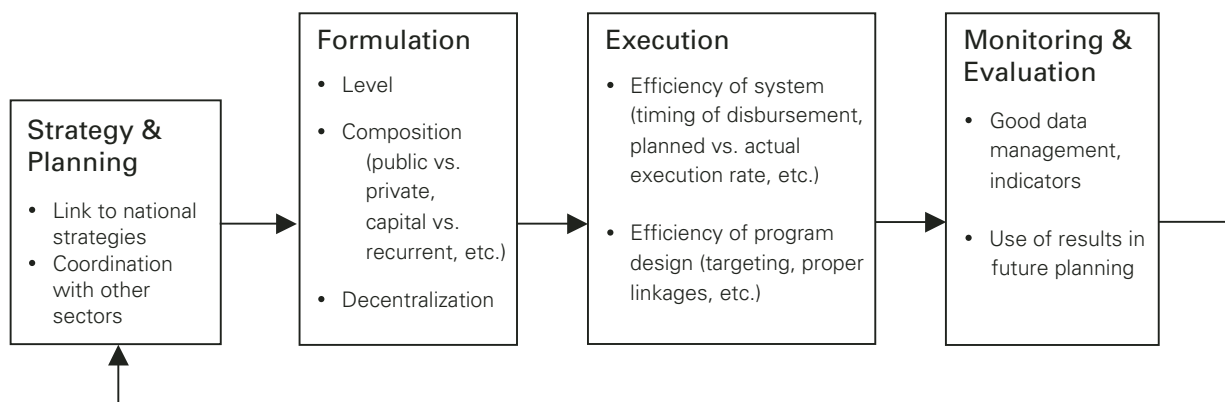
EXECUTIVE SUMMARY

In June 2006, the United Kingdom Department for International Development (DFID) and the World Bank Agriculture and Rural Development Department (ARD) jointly launched the “Public Expenditures for Pro-Poor Agricultural Growth” project. The project comprises three modules. Module 1 produced five background papers that reviewed and analyzed trends and impacts of public expenditure in agriculture. Module 2 produced six country case study agricultural public expenditure reviews (AgPERs), for Nigeria, Uganda, the Lao People’s Democratic Republic, Nepal, Honduras, and Ethiopia. Finally, Module 3 consisted of a series of lesson-learning, capacity-building activities and dissemination, which included a two-day workshop in Addis Ababa, Ethiopia, in May 2009, a dedicated website, the publication of the AgPER Toolkit for practitioners, and this synthesis report.

This paper synthesizes lessons learned from the DFID-WB partnership, to provide guidance on ways to improve the allocation and efficiency of public spending for agricultural growth and poverty reduction. It includes lessons on how to improve data quality, the composition and impact of spending, budget execution, and the integration of off-budget expenditures. It draws upon lessons from the background papers commissioned under Modules 1 and 2. Where needed, the report also draws on lessons learned from other AgPERs recently carried out by the Bank. The paper synthesizes recurring lessons that have emerged from the commissioned work, to highlight key challenges that still remain to improve the efficiency of public expenditure planning and implementation in the agriculture sector, as well as offering options for improvement. The paper is accompanied by a separate document, the AgPER Toolkit, which is a practical guide for practitioners tasked with carrying out AgPERs in the future.

The paper is structured around the Budget Cycle Framework (BCF), to facilitate the identification of entry points to improve expenditure outcomes.

THE BUDGET CYCLE FRAMEWORK (BCF)



Common diagnoses identified in the reviewed AgPERs for each of the four stages of the BCF are as follows.

COMMON DIAGNOSES

Stage 1: Strategy and Planning

1. Lack of evidence based on solid research; goals are often unrealistic and driven primarily by political process
2. Agricultural expenditure is often viewed as non-performing compared to other sectors and thus receives a low budget allocation
3. Coordination with key non-ag sectors (e.g., rural infrastructure, education) is often crucial for sectoral performance but missing in reality
4. Data gaps are especially serious in countries with decentralized budgets
5. Data on private sector investment in agriculture has not been compiled at all in most countries

Stage 2: Budgeting

(1) *On budget formulation*

6. Formulated budget does not adequately reflect the outcomes of the strategy and planning stage
7. In some countries, off-budget funds account for a large part of the ag budget but are poorly documented

(2) *On budget composition*

8. Underinvestment in public goods
9. Lack of coordination within the Ministry of Agriculture results in programs that contradict or duplicate each other's objectives
10. Insufficient budgeting of operational and maintenance costs for existing infrastructure or programs

Stage 3: Execution

(1) *On budget system*

11. Fund disbursements are insensitive to the agriculture production calendar
12. Large discrepancies exist between planned and actual expenditures
13. High levels of waste and leakage of program funds

(2) *On program design*

14. Actual program design is unsuitable for reaching its intended objectives
15. Some agricultural programs have large negative environmental externalities

Stage 4: Monitoring and Evaluation

16. "M&E fatigue": each program has too many irrelevant and non-uniform indicators, and too-frequent evaluations
17. Insufficient resources to carry out high-quality M&E

This paper presents some options for improvement for each of the four stages of the BCF, as well as some good practice examples that were documented in the reviewed AgPERs and other documents.

OPTIONS FOR IMPROVEMENT

Stage 1: Strategy and Planning

1. Collect good objective data, or estimate reasonable proxy data when good data is too costly to collect
2. Institutionalize the use of technical data in strategy formulation
3. Set up formal mechanisms to coordinate rural development issues
4. Reward local government units for good fiduciary management by increasing fiscal transfers
5. Ministry of Agriculture to put in place a coherent statistical protocol with national statistical institutes, etc., to compile private sector investment

Stage 2: Budgeting

(1) Options to improve the formulation process:

6. Finance ministries to provide feedback on quality of budget proposal to line ministries
7. Development partners to move toward adoption of country systems, or governments to strengthen reporting requirements of donor-financed project implementation units to the government
8. Introduce regulation to allow for adequate oversight over SOEs, to bring them under similar reporting obligations as directly budgeted public programs

(2) Options to improve the budget composition:

9. Better documentation, through evaluation reports, of the high returns on investment for key public goods, to make the case for more investment in public goods
10. Include in project feasibility studies of infrastructure projects a systematic estimation of recurrent costs, using established standard costs
11. Government and development partners to conduct periodic AgPERs to systematically assess the budget program against national and sector strategies

Stage 3: Execution

(1) On budget system

12. Prioritize agriculture expenditures during key times in the production cycle
13. Carry out a public expenditure tracking survey (PETS), to quantify waste and leakage

(2) On program design

14. Scrutinize program design against its intended goals, through a rigorous results-oriented logframe or other similar M&E tools
15. Conduct impact analysis, such as equity analysis of subsidies or environmental assessments, to guide reform of major programs

Stage 4: Monitoring and Evaluation

16. Consolidate, prioritize, and simplify the existing M&E structure
17. Provide training to raise the capacity of M&E personnel
18. Employ enhanced governance mechanisms, such as client satisfaction surveys

Given the renewed focus on agriculture, the increase in agriculture public expenditure, and the aid effectiveness principles, efficient allocation of public spending in agriculture has become crucial to increasing the development impact of public agriculture spending and providing accountability for the increased spending in the sector. AgPER is intended to assess the status of the public expenditure program in the sector, according to criteria such as efficiency, equity, and sustainability, and offer suggestions to improve its impact on sectoral performance.

Chapter 1: INTRODUCTION

A large body of empirical work has documented the vital importance of agriculture in the economic structure of many developing countries and has shown the potential of agriculture to play a transformative role in promoting broad-based growth and poverty reduction. Widely accepted and detailed analysis of the historical experience of agriculturally-dependent countries suggests that it will be very difficult to have any economic growth or diversification into industry in these countries without widespread fundamental improvements in agricultural productivity growth occurring first (World Bank 2008b). In fact, not only is agriculture the largest sector in many developing countries in terms of its shares of gross domestic product (GDP) and employment, but three quarters of the world's poor live in rural areas and depend on agriculture for their livelihood.

Developing the agricultural sector requires a coordinated strategy that involves a sound policy environment and well-targeted major investments. Recent policy reforms have improved price incentives for agricultural producers in developing countries. A recent analysis of a large sample of countries across the world shows that net agricultural taxation has, on average, declined sharply. Between 1980 to 1984 and 2000 to 2004, it declined from about 30 percent to 10 percent in Sub-Saharan African (SSA) countries, from about 15 percent to 5 percent in East and South Asian countries, and from marginally negative to a net protection of about 10 percent in Latin American countries (Anderson 2009). However, there is still considerable scope for improvement in the policy environment in many countries, to provide an enabling policy environment to increase investment returns in the agricultural sector. In terms of needed investment, the International Food Policy Research Institute (IFPRI) estimated the global incremental agricultural public investment required—the additional amount necessary to meet the Millennium Development Goal of halving poverty by 2015—to be US\$14 billion annually for all developing countries. The estimated incremental annual investment needed in SSA ranged from US\$3.8 to \$4.8 billion (the former using a unit cost approach, and the latter being the additional investment needed to meet the

Maputo Declaration of spending 10 percent of government budgets on agriculture) (Fan and Rosegrant 2008).

After decades of underinvestment, the declining trend in agricultural spending has recently begun to reverse, especially after the food price crisis. After the food price shock of the early 1970s, global food prices gradually declined. By 1977, real-world grain prices were half the 1974 levels, and by 2000, they were about one-quarter the 1974 levels. The significant decline in global food prices led to complacency about the continued need to invest in agriculture. The share of public spending on agriculture in Asian countries halved from 14 to 7 percent between 1980 and 2004, and in Africa it declined from about 7 to 4 percent. The share of official development assistance (ODA) to agriculture halved from its peak of 18 percent to 9 percent by the late 1980s, and then again to about 4 percent by the early 2000s—although it has since increased to 5 percent as of 2006, the latest data available from the Organisation for Economic Co-operation and Development (OECD). This reversal was further accelerated by the recent food price crisis, which had major implications for the health and livelihood of the poor, both urban and rural, in developing countries—with some estimates showing that the food price crisis of 2008 caused global poverty incidence to increase by anywhere between 100 million (Ivanic and Martin 2008) to 200 million (Dessus, Herrera, and Hoyos 2008). In July 2009, at the G8++ Summit in L'Aquila, countries agreed to mobilize US\$22 billion for sustainable agriculture development over three years, while maintaining a strong commitment to ensure adequate emergency food aid.

For a number of years, donors have urged poor countries to make their agricultural investments more strategic and better prioritized for results, by supporting country-led sectoral strategy and investment plans. The Paris Declaration on Aid Effectiveness (2005) stressed five principles: (i) country ownership of the development agenda; (ii) donor alignment with country priorities and systems; (iii) harmonization of donor policies, procedures, and practices; (iv) managing for development results; and (v) mutual accountability. The follow-

up to Paris, the Accra Agenda for Action (2008), stressed: (i) enhanced country ownership; (ii) building more effective and inclusive partnerships; and (iii) achieving development results and being accountable for them.

Given the renewed focus on agriculture, the increase in agriculture public expenditure, and the aid effectiveness principles, efficient allocation of public spending in agriculture has become crucial to increasing the development impact of public agriculture spending and providing accountability for the increased spending in the sector. An agriculture public expenditure review (AgPER) is intended to assess the status of the public expenditure program in the sector, according to criteria such as efficiency, equity, and sustainability, and offer suggestions to improve its impact on sectoral performance. In Africa, the AgPER is institutionalized in the regional approach to agricultural development, the New Partnership for Africa's Development (NEPAD). One of the initial tasks for each country to undertake in NEPAD's flagship program to raise agricultural productivity, the Comprehensive Africa Agriculture Development Programme (CAADP), is an AgPER that documents the level, composition, and quality of expenditures in the sector. Also, an AgPER is the only way to eliminate—or at least minimize—the danger inherent in the fungible nature of funds. That is, donor-funded projects that are expected to generate high returns while meeting safeguard requirements could permit governments to simply divert funds to low-return projects that may create more problems than they solve. Thus a tool like the AgPER is needed, for an overview of the whole spending program, to ensure that this does not happen.

In this context, in June 2006, the United Kingdom Department for International Development (DFID) and the World Bank Agriculture and Rural Development Department (ARD) jointly launched the “Public Expenditures for Pro-Poor Agricultural Growth” project. The project comprises three modules.

Module 1 produced five background papers, which reviewed and analyzed trends and impacts of public expenditure in agriculture.¹ Module 2 produced six country case study AgPERs (Nigeria, Uganda, Lao PDR, Nepal, Honduras, and Ethiopia). Finally, Module 3 consisted of a series of lesson-learning, capacity-building activities and dissemination, which included a two-day workshop in Addis Ababa, Ethiopia, in May 2009, a dedicated website,² the publication of the AgPER Toolkit for practitioners, and this synthesis report.

This paper synthesizes lessons learned from the DFID–WB partnership, to provide guidance on ways to improve the allocation and efficiency of public spending for agricultural growth and poverty reduction. It includes lessons on how to improve data quality, the composition and impact of spending, budget execution, and the integration of donor funding. It draws upon lessons from the background papers commissioned under Modules 1 and 2. Where needed, the report also draws on lessons learned from other AgPERs recently carried out by the Bank (see Annex for a full list of recently conducted AgPERs). The paper synthesizes recurring lessons that have emerged from the commissioned work, to highlight key challenges that still remain to improve the efficiency of public expenditure planning and implementation in the agriculture sector, as well as offering options for improvement. The paper is accompanied by a separate document, the AgPER Toolkit, which is a practical guide for practitioners tasked with carrying out AgPERs in the future. The Toolkit provides an overview of the different types of AgPERs and presents examples of methodologies used for analysis of public spending.

1 IFPRI report: Fan and Saurkar (2006), Fan and Brzeska (2007a), and Fan and Brzeska (2007b); OPM reports: Akroyd and Smith (January 2007) and Akroyd and Smith (June 2007).

2 <http://www.worldbank.org/agper>.

Chapter 2: TRENDS IN AGRICULTURAL PUBLIC EXPENDITURE

Public spending on agriculture more than doubled between 1980 and 2005 in absolute terms globally, increasing at an annual rate of 3.2 percent in the 44 developing countries reviewed in Brzeska and Fan (2009)—see Table 1.³ Most notably, the Sub-Saharan Africa (SSA) region reported the highest annual growth rate (4.4 percent) among all the regions, more than doubling its agricultural spending since 1980. However, a closer examination of expenditure trends in SSA indicates that a large portion of the increase occurred during the most recent period of analysis (2000–2005) and that the region’s agricultural expenditures grew at a much lower rate during the 1980s and 1990s. Similar to SSA, developing countries in Asia more than doubled their agricultural spending during the past two decades, with an annual growth rate of 4.3 percent; however, the growth in Asia’s agricultural spending was more balanced across the decades than the growth reported for SSA. Agricultural spending in Africa, as a whole, grew at a much more modest rate of 2.6 percent annually, whereas Latin America and the Caribbean (LCR) was the only region that reduced its spending in agriculture, with an annual reduction of 0.8 percent.

3 Total expenditures are broken down into the various sectors found in the International Monetary Fund’s (IMF) *Government Financial Statistics (GFS) Yearbook*. This study concentrates on six sectors, namely agriculture, defense, education, health, social security, and transportation and communication. The definition of these sectors is as per the GFS Manual 2001, which uses the internationally accepted standard for the Classification of the Functions of Government (COFOG).

However, agricultural spending as a percentage of agricultural GDP declined across all regions from 1980 to 2000, and is extremely low in developing countries compared to developed countries, with the latter usually spending more than 20 percent, whereas the former averages less than 10 percent (Fan, Yu, and Saurkar 2008). Although agricultural expenditures in developing countries have increased in absolute terms, spending on agriculture has not kept up with growth in the agricultural sector, as measured by agricultural GDP (Table 1). This can be observed by the decline in share of agriculture public expenditure in agricultural GDP, from 10.4 percent in 1980 to 9.9 percent in 2005. SSA had the lowest share of agricultural GDP (6.4 percent in 2005).⁴ Also for LCR, agricultural spending as a percentage of agricultural GDP actually decreased, from 14.7 percent in 1980 to 9.4 percent in 2005.

4 See Headey et al. (2009) for a results from an expert survey on why African governments underinvest in agriculture. Results from the survey revealed the reasons as (i) national leadership being weak at the operational level (in putting words into actions), inconsistent, and stop-start; (ii) problems with the national budgetary process, which are non-unique to agriculture, but also with the time-sensitiveness of agriculture funds; (iii) weak leadership in Ministries of Agriculture, since Ministries of Agriculture typically have poor reputations and are politically weak; (iv) poor business culture in Ministries of Agriculture; (v) lack of technical capacity in Ministries of Agriculture; (vi) difficulty of demonstrating effectiveness of expenditure in agriculture; and (vii) project proliferation and weak oversight, despite large portfolios by donors.

TABLE 1: Agriculture Expenditure

	2000 INTERNATIONAL DOLLARS, BILLIONS				ANNUAL GROWTH RATE	PERCENTAGE OF AGGDP (%)			
	1980	1990	2000	2005	1980–2005	1980	1990	2000	2005
AFRICA	7.3	7.8	10.3	13.9	2.6	7.1	5.4	6.0	7.0
SSA	3.0	3.6	4.0	8.7	4.4	4.1	3.7	3.5	6.4
ASIA	71.1	103.0	128.4	201.6	4.3	9.6	8.6	7.9	10.2
LCR	31.5	12.2	18.9	25.5	-0.8	14.7	5.8	9.1	9.4
TOTAL	109.9	123.0	157.6	241.0	3.2	10.4	7.9	7.9	9.9

Source: Brzeska and Fan (2009). Calculated using data from IMF *Government Financial Statistics Yearbook* (various issues).

Furthermore, the percentage of agricultural spending in total public expenditure was less than 7 percent, after a large and steady decline from 1980 (Table 2). In SSA, agriculture was the third-lowest category in allocation of public expenditure, after social security and transportation and communication. In Asia, agriculture was also the third-lowest, after transportation and communication and health. In LCR, it was the second-lowest category, after transportation and communication. Asia benefited from high levels of investment in agriculture by both governments and development partners, to promote the use of improved crop varieties, fertilizer, and irrigation—meaning that during the Green Revolution, Asian countries were averaging about 11 percent of total public expenditure on agriculture. During the 1980s and early 1990s, Asia was spending more than twice as much, as a share of total spending, compared to SSA.

The tide is now turning in favor of agriculture among governments and development, as its benefits to development have become exceedingly clear. For the first time in history, more than one billion people worldwide are undernourished. This is about 100 million more than before 2008 and around one-sixth of the world's population. Rising hunger is a global phenomenon, and all regions in the world have been affected by the increase in food insecurity. Increasing aggregate food availability is certainly not enough to reduce global food insecurity. However, in many cases, improvement in the overall national food supply has been shown to be a necessary—if not a sufficient—condition for reducing hunger (Eicher and Staatz 1998). Thus, more investment in agriculture is necessary, as well as better spending to increase the “value for money” of every dollar spent.

TABLE 2: Composition of Public Expenditure (Percent)

	SUB SAHARAN AFRICA (SSA)				ASIA				LATIN AMERICA AND THE CARIBBEAN (LCR)			
	1980	1990	2000	2005	1980	1990	2000	2005	1980	1990	2000	2005
Agriculture^a	7.1	5.5	3.8	6.3	14.9	12.3	6.3	6.5	7.7	2.1	2.5	2.5
Education	14.4	14.5	14.1	15.4	13.8	17.4	16.9	17.9	10.4	7.9	14.8	14.3
Health	4.9	4.5	6.7	8.1	5.3	4.3	4.3	5.4	5.8	6.1	7.6	8.4
Transportation and Communication	11.0	4.5	4.7	5.8	11.7	5.2	3.8	4.5	6.8	2.6	2.6	2.4
Social Security	2.9	2.5	5.0	2.8	1.9	2.4	6.4	8.7	23.6	21.8	36.4	36.6
Defense	19.7	17.1	8.8	6.5	17.6	12.9	8.3	7.9	6.1	5.0	4.6	3.8
Other ^b	40.1	51.5	56.9	55.1	34.8	45.5	54.0	49.1	39.5	54.4	31.6	32.0

Source: Brzeska and Fan (2009). Calculated using data from IMF Government Financial Statistics Yearbook (various issues).

a Includes agriculture, forestry, fishing, and hunting.

b Includes fuel energy, mining, manufacturing and construction, and general administration.

Chapter 3: HOW DO WE IMPROVE PUBLIC SPENDING IN AGRICULTURE?

An agriculture public expenditure review (AgPER) is a tool meant to provide guidance on ways to improve the quantity and quality of the expenditure program. Improving the quantity implies increasing the size of the sector budget, in cases where the size is too small, through additional budget resources or reallocation from other sectors. In other cases, where the spending level is sufficiently high, it implies raising the efficiency of the resources allocated to the sector, to improve outcomes within a given level of resources, whether the desired outcomes be rural poverty alleviation, higher sector growth rates, or increased sustainability of programs.

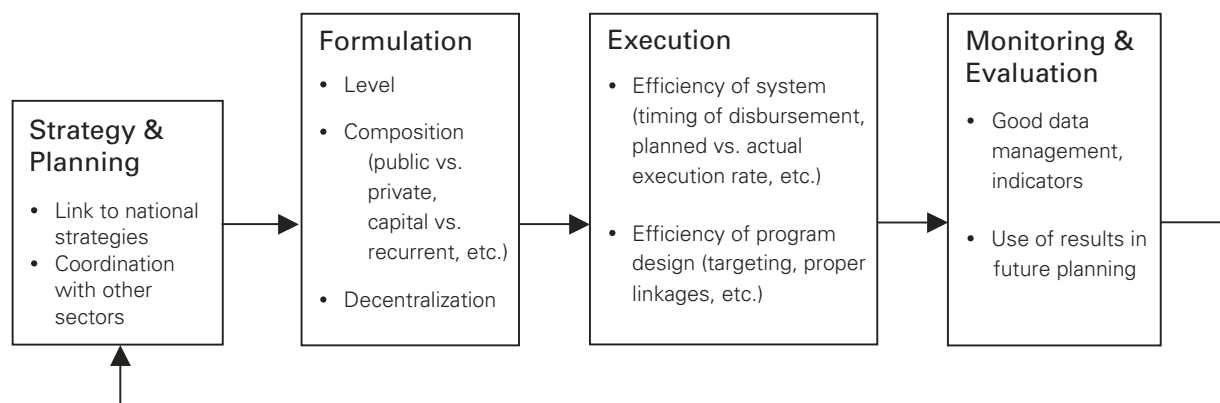
To provide guidance on improving public spending, the scope of a comprehensive AgPER should encompass the entire Budget Cycle Framework (BCF). This is because the process by which the budget is determined, its link to national and sectoral strategies, the manner in which it can be adjusted if needed, and how it is monitored and evaluated, are important in improving the expenditure program, going forward. Failure to better link the various stages of the BCF has historically been considered to be the single most important factor contributing to poor budgeting outcomes (World Bank 1998).

The four stages of the BCF are (1) strategy and planning, (2) budget formulation, (3) budget execution, and (4) monitoring

and evaluation (see Figure 1). The **first stage** of the BCF is the formulation of development strategies and outcome targets, at both the national and sectoral levels. The process of strategy formulation in many countries encompasses the setting of priorities by relevant development actors and stakeholders (such as state, private sector, and civil society organizations). Using a participatory approach, the design of strategy documents involves the preparation of poverty diagnostics and targets, development objectives, the medium- and long-term policy framework (macroeconomic and sectoral policies), intermediate progress indicators, and a timeline alongside the clarification of responsibilities. In order to achieve the goals and targets outlined in the national strategies, each sector then prioritizes thematic and sub-thematic areas that are associated with the programs and services outlined at the national level.

The **second stage** of the BCF is the budget formulation stage, which is a process that links the medium- and long-term strategic goals with annual budgetary activities. In some countries, this takes the form of a medium-term expenditure framework (MTEF), which serves as the linking mechanism that allows expenditures to be driven by policy priorities and disciplined by budget realities. The use of MTEFs has been encouraged and supported by the World Bank since the early

FIGURE 1: The Budget Cycle Framework (BCF)



1990s, after its success in increasing budget predictability in developed countries like Australia. However, its record in developing countries has been mixed.⁵ Even if a country does not have a full-fledged MTEF in place, some form of medium-term multi-year budget planning is critical in public budget management, to improve the quality of annual budgets as well as to highlight the expenditure implications of policy proposals for future budgets, and enable the government to evaluate the cost-effectiveness of the policy and determine whether it is attempting more than can be financed. If done well, it can signal to the administration and the public the direction of change and give the private sector time to adjust (Schiavo-Campo 2009).

A typical annual budget cycle commences with the Ministry of Finance releasing the budget ceilings and working guidelines for budget formulation for each of the line ministries. After that, individual line ministries submit their proposals, which have been prepared by sector budget groups against these “hard” ceilings. Once the Ministry of Finance receives the budgets from all line ministries, inter-ministerial meetings are held to further vet and finalize the national budget, with the final version of the budget being submitted to the parliament for approval.

The **third stage** is the actual budget execution, after parliamentary approval of the budget and funds are released to the various cost centers.

The **fourth stage**—the final stage—of the budget cycle is monitoring and evaluation (M&E), whereby reports are prepared by the respective sectoral agencies to assess the strengths and weaknesses of budget allocations and program implementation, with implications for subsequent budgets. More specifically, monitoring involves the systematic collection of data on specific indicators to provide information on the achievement of objectives and progress in the use of allocated resources. The evaluation component entails determining the relevance of objectives, the efficacy of design and implementation, the efficiency of resource use, and sustainability of results. One of the main objectives of this stage of the budgetary process is to evaluate the effectiveness of policy activities and feed the results into future planning and budgetary processes.

⁵ Results from a preliminary impact assessment of MTEFs in Africa point to the following: (i) (with the possible exception of Uganda) virtually no evidence of improved macroeconomic balance, (ii) some limited evidence of reallocation to priority subsectors, (iii) no evidence of a link to greater budgetary predictability, and (iv) no evidence of efficiency gains in spending (Brumby 2008).

In the following paragraphs, the paper summarizes the key findings from AgPERs undertaken by the DFID-WB partnership, as well as other recently conducted AgPERs, along each stage of the BCF, and summarizes the information according to “Common Diagnoses” and “Options for Improvement,” accompanied by some good practice examples.

STAGE 1: STRATEGY AND PLANNING

Strategy and Planning Stage: Common Diagnoses

1. Lack of evidence based on solid research—goals are often unrealistic and driven primarily by political process
2. Agricultural expenditure is often viewed as non-performing compared to other sectors, and thus receives a low budget allocation
3. Coordination with key non-ag sectors (e.g., rural infrastructure, education) is often crucial for sectoral performance but missing in reality
4. Data gaps are especially serious in countries with decentralized budgets
5. Data on private sector investment in agriculture has not been compiled at all in most countries

Diagnosis 1: Lack of evidence based on solid research—goals are often unrealistic and driven primarily by political process. Thus, strategies do not facilitate easy budget allocation or easy implementation. When the underlying strategies are vaguely written, with little justification to support its priorities, it facilitates the politicization of the entire budget process. Common examples cited include (i) cases where agriculture in national development plans are identified as “key” sectors for development, yet the sector receives a low budget allocation, (ii) cases where the sectoral strategy heavily emphasizes certain goals (e.g., promoting agro-export) but the actual budget showing that such goals are not supported by adequate funding to relevant programs, or (iii) the existence of large “pet projects” or populist projects whose justification cannot be supported by an objective technical evaluation.

Diagnosis 2: Agricultural expenditure is often viewed as non-performing compared to other sectors and thus receives a low budget allocation. A commonly touted theory is that evaluating impact in the agriculture sector is costlier and more complicated than for other sectors. Agriculture experts often cite the difficulty of demonstrating outcomes for

agricultural programs like extension, compared to the “ease” of demonstrating outcomes in, for example, education or health. However, there is really nothing to say that conducting a proper impact analysis on an education program such as increasing teacher salaries is any harder or easier than a program that introduces new crop varieties. Nevertheless this claim is often repeated, even by teams carrying out AgPER, as a justification for why agriculture expenditure is viewed as non-performing and consequently receives a low budget allocation.

Diagnosis 3: Coordination with key non-ag sectors (e.g., rural infrastructure, education) is often crucial for sectoral performance but missing in reality. There is a prevalence of agro-focused strategies, even when it is clear that the performance of the agricultural sector hinges on certain key bottlenecks that are outside of the sector, such as rural infrastructure, nutrition, rural education, and others. Coordination among the different ministries involved in rural areas often exists in name only, and actual tangible results, in terms of aligned strategies, investment plans, and budgets, are exceedingly rare.

Diagnosis 4: Data gaps are especially serious in countries with decentralized budgets. Even in countries with fairly centralized budget systems, data gaps, and common data-related problems—such as inconsistent data by sources, insufficiently disaggregated data, and misclassified data—are prevalent. Budgets administered by local governments are often not compiled centrally and need to be collected locally, which adds to the resource requirement of conducting AgPERs in such settings.

Diagnosis 5: Data on private sector investment in agriculture has not been compiled at all in most countries. Private investment accounts for the majority of investment in the agricultural sector. In some countries it is estimated to account for more than 70 percent of all investment in the sector. However, very few countries compile and analyze

Strategy and Planning Stage: Options for Improvement

1. Collect good objective data or estimate reasonable proxy data when good data is too costly to collect
2. Institutionalize the use of technical data in strategy formulation
3. Set up formal mechanisms to coordinate rural development issues
4. Reward local government units for good fiduciary management by increasing fiscal transfers
5. Ministry of Agriculture to put in place a coherent statistical protocol with national statistical institutes, etc., to compile private sector investment

data on the different types of private investment (foreign direct investments, corporate investments, individual farm-level investments, etc.).

Option 1: Collect good objective data or estimate reasonable proxy data when good data is too costly to collect. To increase the incorporation of solid, evidence-based research, as a first step, such data needs to be available. To ensure that high-quality, research-based data is available, more effort should be made to provide sufficient resources to the relevant offices so that they may carry out technical analysis of sector programs—keeping in mind that these studies tend to be costly when involving extensive field surveys. Also, creative methods should be sought in cases where the optimal data is unavailable, or too costly to collect. These may involve using information from multiple datasets, using a case study approach following a justified sample selection process (see example on Nigeria in Good Practice Box 1), using estimation techniques, and using surveys and other participatory methods (see example on Ghana in Good Practice Box 1).

GOOD PRACTICE BOX 1: Creative Ways of Collecting Data

Nigeria: A Case Study Approach to Collect Sub-national Data

State and local governments in Nigeria account for about 46 percent of all public expenditure in Nigeria. The proportion is thought to be even higher in the agricultural sector. For this reason, it is necessary to go beyond the federal budget and get expenditure data at the lower tiers of government. Since sub-national data are not readily available from a central source (a common problem in many countries), data on state and local government expenditures must be collected locally. Resource constraints ruled out the possibility of collecting data from a large number of states and local government authorities (LGAs), so the team used *a case study approach* as a practical compromise. Three states and three LGAs were selected for in-depth analysis, including data collection. The selection was based on the following considerations: (i) high importance of agriculture in the state's economy; (ii) capacity within the state's public institutions to provide information and data; (iii) expressed interest in collaborating with the AgPER team; and (iv) location in different geopolitical zones.

The *choice of the study period* also illustrates another practical response to data constraints. The original study design called for the analysis to cover at least ten years, but the time frame was shortened after it became apparent that few data were available prior to 2000, especially at the local government level. In addition, the study team could draw upon the results of other analyses by the World Bank and IFPRI, which take a longer view and provide a historical perspective on the performance of the agricultural sector. The challenge then becomes one of integrating the data and results of other studies.

Source: World Bank (2009b).

Ghana: Using Various Data Sources and Participatory Methods for Collecting Institutional Data

IFPRI (2008) illustrates various approaches and sources for collecting the required information. The expenditure review primarily involved collecting and analyzing data, whereas the institutional review was more participatory. The participatory methods included two consultations with senior management and consultations with a group of retired staff.

The study team chose to examine the workings of district offices, as organizational strengths and weakness are likely to be most noticeable at the points of service delivery. After a preliminary document review, the team did a scoping study at the East Akim District Agricultural Development Unit (DADU), to understand how the district offices function and to identify suitable approaches for capturing critical aspects of how the DADUs functioned.

Following the scoping study, the team presented the research plan to regional and national directors in a meeting organized in Accra. They recommended four districts for case studies, one in each agro-ecological zone to capture any differences in the challenges faced in delivering services: Dangme East in the coastal zone, Wassa Amenfi West in the forest zone, Wenchi in the Transition Zone, and West Mamprusi in the Savannah Zone.

The DADUs in these districts were requested to compile the required information before the team visited. During the first three weeks of February, a team of consultants visited the districts to interact with staff and collect the information. In the districts, senior officers were interviewed individually, and the group discussions were held with the field staff. Data collected from the district offices included the following: (i) details of performance assessment for one year; (ii) details of dates of recruitment, promotions, and current positions of all staff; (iii) annual work plans, progress, and financial reports. The staff was asked to individually provide the following information: (i) a list of activities carried out in the previous five days, including distances traveled, time spent interacting with farmers, number of farmers contacted, and other information; and (ii) the training and promotions received during the staff member's employment with the ministry. In addition, staff responded to a survey instrument that included questions designed to elicit their perceptions of various issues relevant to their work, the importance of various factors in their work environment, and the accountability structure. The survey was completed by 67 staff members.

The study also used data collected through a survey by the Institute of Statistical, Social, and Economic Research and IFPRI as part of the project "Making Rural Service Provision Work for the Poor," focusing on rural water supply and agricultural extension. The survey covered households, elected and appointed District Assembly Members, District Assembly staff, farmer-based organizations, agricultural extension agents, and organizations involved in rural water supply. The data

presented in this report were collected in four districts (Wassa West, Wassa Amenfi East, Tolon Kumbungu, and West Gonja).

Data on public agricultural expenditures were obtained primarily from the Controller and Accountant General's Department, Ministry of Food and Agriculture, the Council for Scientific and Industrial Research, the Ghana Cocoa Board, Ministry of Road Transport, Ghana Statistical Service, and many other institutions, in addition to published sources. Information from the agencies and case study interviews mentioned earlier was used to analyze factors relating to institutional performance.

Source: World Bank (2009b).

Option 2: Institutionalize the use of technical data in strategy formulation. Once good data is collected or estimated, they need to feed into the strategy formulation process. One common diagnosis is that evaluation and other analysis are almost never used in the BCF, or for any other decision making—such as rewarding good performance, addressing inefficiencies, or reallocating resources between priority areas. In countries where the M&E infrastructure is very weak, realistically, evaluation should be carried out only for major programs that constitute a large share of the agriculture budget. This information can be accompanied by other technical analysis, such as ex-ante project feasibility studies. An explicit effort needs to be made, in incorporating the results from these analyses into the strategy formulation process. A strategy formulation procedure that mandates the use of certain tools, such as evaluation results of existing programs or investment priority criteria, is one way of ensuring that technical analyses are fed into the process (see example on South Korea in Good Practice Box 2). On evaluation, one idea would be to embed within the evaluation process an action plan that would enable program managers to address the issues identified in the evaluations. The action plan would be agreed between evaluators, program managers, and other representatives of the Ministry of Agriculture, to ensure that they are followed through.

Option 3: Set up formal mechanisms to coordinate rural development issues. Frequently, actions are required outside of the mandate of the Ministry of Agriculture, to remove major impediments to agricultural development. For example, the rural road network directly affects market access for farmers, and water management upstream affects the availability of water downstream for irrigation use. Such issues can only be taken up by a forum of multi-sectoral ministries and stakeholders (see example on Uganda in Good Practice Box 3). However, consensus is often difficult to achieve,

GOOD PRACTICE BOX 2: Institutionalizing the Use of Technical Data in Strategy Formulation

South Korea: Pre-Feasibility Studies by the Ministry of Finance

In 1999, South Korea instituted a system of “pre-feasibility studies” of project proposals, conducted by the Ministry of Finance independently of the sector ministries concerned. The exercise aims to enhance fiscal productivity by launching large-scale public investment projects based on transparent and objective ex-ante project evaluations. All new large-scale projects (including non-infrastructure projects) with total costs amounting 50 billion Won or more (approximately US\$50 million) are subject to this requirement. This includes projects by local governments and with private sector partnerships when central government subsidy exceeds 30 billion Won. The system has resulted in a sharp reduction in the proportion of “feasible” projects, down to those truly deserving of public resources. In effect, this has turned the subsequent “feasibility study” by the line ministry into an “implementation modalities study.” Equally important, but particularly innovative, has been the “Analytical Hierarchy Process,” by which the decision-making process reflects the “votes” of experts from different disciplines, rather than only a mechanistic application of formulas (which is so easy to manipulate by those with possession of the numbers and ability to tweak the assumptions). Additionally, the willingness to have the mid-course reassessment of feasibility and demand lead to actual cancellation of a project is remarkable, in light of the notorious reluctance of most administrative systems to stop pouring good money after bad.

Source: Park (2008), as cited in Schiavo-Campo (2008).

as each ministry tends to fight for more money for its own mandates. In order for such a forum to succeed, it is critical to have it chaired by an objective party, such as the Ministry of Finance or the Executive office, and not by a line ministry such as the Ministry of Agriculture (see example on OECD analysis in Good Practice Box 3).

Option 4: Reward local government units with good fiduciary management by increasing fiscal transfers.

Decentralization of public expenditure is a goal in many

countries because it offers a number of advantages that should be of benefit to the performance of the agriculture public expenditure, such as the potential to increase ownership and empowerment of local stakeholders and farmer groups in the design and implementation of programs and the ability to tailor the operation of programs to match specific local conditions. However, there is no doubt that this adds additional complexity in the BCF. To ensure that information flows to the central ministries, incentive systems could be considered (i.e., a system whereby local government units

GOOD PRACTICE BOX 3: Setting Up Formal Mechanisms to Coordinate Rural Development Issues

Uganda: Plan for Modernizing Agriculture

The Plan for Modernizing Agriculture is coordinated by a National Steering Committee of key stakeholders and chaired by the Ministry of Finance. It involves thirteen government ministries and agencies, as well as local governments, the private sector, civil society, and development partners. The plan is based on the vision of using agriculture for development, and progress has been steady but slower than expected. The plan's multisectoral framework is not well understood, resulting in uneven integration across different line ministries. Implementation calls for patience, consistency, and buy-in from key stakeholders to ensure appropriate funding.

Source: Personal communication with Kisamba Mugerwa (former minister), as cited in World Bank 2008b.

OECD Analysis: Inter-Institutional Horizontal Coordination for Rural Development

OECD sees inter-institutional coordination as an aspect of meta-governance—or “the governance of government and governance.” In this framework, horizontal coordination attempts to overcome sectoral approaches in favor of an integrated policy approach to rural development. Coordination is needed, to “encourage the various institutional and managerial systems which formulate and implement rural policy to work together.” To ensure consistency—that is, “that individual policies are not contradictory and that they converge in a coherent strategy”—several horizontal coordination options are considered, following OECD member-country experience:

- A special unit reporting directly to a head of government or parliament (France)
- An integrated ministry to address several issues of importance to rural regions (UK, Germany, Japan)
- “Rural policy proofing” (UK, Canada)
- Inter-ministerial coordination via working groups and formal contracts (Mexico, Italy)

In Mexico, OECD highlights the innovations from the existing structures to coordinate rural development, but acknowledges that “the Secretary of Agriculture has been much on its own leading the promotion and implementation of the law of Sustainable Rural Development (LDRS) [and that] the fact that the Inter-ministerial Commission for Sustainable Rural Development (CIDRS) is chaired by one sector limits the multi-sectoral objective of the law.” In this last respect, “experience from OECD countries indicates that a horizontal commission which is chaired by one sector (in this case, agriculture) may be limited in pursuing multi-sectoral objectives and hinders the full involvement of other ministries in a national rural strategy.” The alternatives proposed to strengthen the CIDRS are:

- Assigning a meta-ministerial leadership to the CIDRS [. . .], which could be filled by the executive branch
- Rotated leadership of CIDRS [. . .] among different ministries. In this way, the works of the commission are not seen as monopolized by one institution
- The creation of an ad hoc independent institution in charge of rural policy with a multi-sectoral perspective and budget and normative arrangements to enforce collaboration from the different ministries
- Strengthening the legal attributions of CIDRS with stronger budgetary allowances rather than the formality of presenting a ‘rural budget’ to congress

Source: OECD 2006, pp. 110–114, and OECD 2007, pp. 118–122, as cited in World Bank 2009a.

that have demonstrated good fiduciary management would get increased fiscal transfers in the following year).

Option 5: Ministry of Agriculture to put in place a coherent statistical protocol with national statistical institutes to compile private sector investment. Aggregating private sector investment at the country level is a timely and

resource-intensive task that is well beyond the scope of most Ministries of Agriculture. Thus, they should pursue intra-governmental arrangements with the Ministry of Planning or National Statistical Institutes to carry out the various surveys that would be necessary (see example on Mozambique in Good Practice Box 4).

GOOD PRACTICE BOX 4: Data Sources to Compile Private Sector Investment Data in Agriculture

A background paper for the Mozambique AgPER (2009) assesses six sources of data to compile private sector investment in agriculture. The discussion identifies several possible approaches to improve existing data systems to provide better information for monitoring how effectively public expenditures on agricultural development stimulate investment in agriculture.

(1) Authorized Investment Projects

The Investment Promotion Center (Centro de Promoção de Investimentos, CPI) produces regular data reports on authorized investment projects. The data cover both foreign and national investments, with a breakdown by sector, province, district, and country of origin, along with the proposed owner's equity capital, the value of loans and supplementary capital, and the expected number of jobs to be created. Prospective investors provide this information in the course of applying for CPI assistance and investment incentives under the Law on Investment and the Code of Fiscal Benefits. The incentives include guarantees on repatriation of dividends and capital, access to international arbitration, exemptions from customs duties on Class "K" capital goods, and other tax benefits for designated types of investment.

Two major problems with the CPI statistics limit their value for monitoring trends in agricultural investment. First, authorized investment is not the same as actual investment. Some plans do not materialize, and those that do may be smaller or larger than planned. In addition, data on projects approved for a particular year provide little or no information on the timing of the investments. The second problem is that the breakdown by sector uses a broad classification with only two categories relating to agriculture: (i) agriculture and agro-industry, including forestry and (ii) aquaculture and fisheries. The reports do not separate agro-industry from agriculture and provide no details by crop or product.

(2) Foreign Investment Inflows

The Bank of Mozambique (Banco de Moçambique, BdM) compiles data on foreign capital inflows for the balance of payments statistics. The data are obtained from documents filed by foreign investors, who must register inflows in order to qualify for later repatriation of dividends and capital. Thus, the BdM data provide a good picture of actual cross-border investment flows to complement the CPI data on investment approvals. Obviously, this source provides no information on investment by domestic enterprises. Despite a legal requirement for foreign investors to register capital inflows at BdM within 120 days of CPI approval, CPI officials have found that many clients fail to comply. Noncompliance can occur because an investor simply overlooks the procedure, is badly advised by an agent, or chooses not to deal with the extra paperwork.

(3) Commercial Bank Lending to Agriculture

BdM also compiles regular data reports on commercial bank credit to the economy, with breakdowns by sector, type of loan, and province. In this case, the sector categories provide reasonably good detail. In particular, credit to agriculture includes separate entries for tea, sugar, cashew, sisal, copra, cotton, and other crops, as well as livestock, forestry, and fisheries. In addition, the data for manufacturing separately records lending for agro-industry, which covers food processing, drinks, and tobacco processing. On loan use, BdM usefully distinguishes between working capital credit and investment credits.

GOOD PRACTICE BOX 4: Data Sources to Compile Private Sector Investment Data in Agriculture (*continued*)

Most of the tabulations show credit outstanding at the end of a given time period; the change from one period to the next is, therefore, a measure of the net flow of lending during the period. BdM also provides information on gross new lending, repayments, and net lending by broad sector classification and type of loan. This dataset can be an important basis for monitoring trends in agricultural investment, but only to the extent of investments financed by bank loans. This limitation is serious, given that enterprise surveys in Mozambique and other countries in the region show that businesses rely far more on self-finance and retained earnings than on bank loans due to problems of access to credit and high interest rates. Hence, data on bank loans cannot provide a measure of overall investment in agriculture, even among formally registered enterprises. Another limitation is that the sector classifications may be problematic. Many loans recorded as going to agriculture are actually used for other activities.

(4) Private Investment in the National Accounts

There are three approaches to measuring GDP: the sum of value added by sector; the sum of incomes generated in domestic production activities; and the sum of domestic expenditures on final goods and services. The third approach involves estimating private consumption expenditure (C), gross private capital formation (I), government expenditure on goods and services (G), and net exports (X–M), giving the well known identity: $GDP = C + I + G + (X-M)$.

In Mozambique, as in most countries with weak data systems, the main source of GDP data is estimates of value added by sector. A senior official at the National Institute of Statistics (Instituto Nacional de Estatística, INE) explained that INE derives estimates of value added from data on output by sector and benchmark ratios of value added to output. INE obtains output data for 152 product categories, including nine in agriculture, but value-added ratios are applied to only four agricultural aggregates: crops, animal production, silviculture, and fisheries. INE does not tabulate value-added data by type of crop.

Another avenue for obtaining detailed data on private investment, at least among registered enterprises, is from income tax returns. The quality of data from tax records, of course, is dependent on the extent of tax compliance by registered businesses. Nonetheless, it may be the best information available on formal sector investment in agriculture.

(5) Agricultural Survey (Small- and Medium-scale Producers)

The data sources cited above provide virtually no information on investments made by small- and medium-scale producers, even though this group accounts for an overwhelming majority of farm units, most of the area under cultivation, and a large fraction of agricultural output. However, the Ministry of Agriculture and INE collect data on exactly this group from an Agriculture Survey (Trabalho de Inquérito Agrícola, TIA), which has been conducted each year since 2002. The survey covers approximately 6,000 households selected from a nationally representative sample frame.

(6) Enterprise Surveys

INE conducts an Annual Enterprise Survey (Inquerito Annual as Empresas, IAE) of registered businesses covering enterprise characteristics, including types of output, levels of production and employment; labor costs; input costs; and investment in buildings, machinery and equipment, vehicles, and other capital goods. By law, every enterprise is obligated to respond to the questionnaire. In reality, INE reports that the response rate is very low. In addition, INE carried out special business surveys in 1998, 2002, and 2006 in conjunction with the Confederation of Business Associations (Confederação das Associações Económicas de Moçambique, CTA), but with very limited coverage. These instruments do not provide systematic data on private investment and provide even less on investment in agriculture.

Source: Nathan Associates (2008).

STAGE 2: BUDGET FORMULATION

Budget Formulation Stage: Common Diagnoses

(1) *On budget formulation*

1. Formulated budget does not adequately reflect the outcomes of the strategy & planning stage
2. In some countries, off-budget funds account for a large part of the agricultural budget but are poorly documented

(2) *On budget composition*

3. Under-investment in public goods
4. Lack of coordination within the Ministry of Agriculture results in programs that contradict or duplicate each other's objectives
5. Insufficient budgeting of operational and maintenance costs for existing infrastructure or programs

Diagnosis 1 (Budget Formulation): Formulated budget does not adequately reflect the outcomes of the strategy and planning stage. In many AgPERs, observations were made early regarding the disconnect in the BCF between the strategy and planning phase and the budget formulation phase, whereby the formulated budget was not aligned to the sector strategy. This is indeed true in the agriculture sector, but also in most other public sectors as well and reflects the importance of having a well articulated strategy and investment plan that can easily and unambiguously be translated into a budget.

Diagnosis 2 (Budget Formulation): In some countries, off-budget funds account for a large part of the agriculture budget but are poorly documented (e.g., many donor or non-governmental organization (NGO) funded activities, state-owned enterprises (SOEs) for transition countries, and “implicit subsidies”). The widespread prevalence of large-scale, off-budget programs is well documented in AgPERs. In African countries, it typically involves donor- or NGO-funded projects. In Eastern European and Central Asian countries, it typically involves SOEs. Also, there is evidence of large-scale, implicit subsidies given to the sector that do not appear in the budget, but are clearly subsidies to farmers. Examples are tax exemptions and discounts for farmers and agricultural enterprises or discounted prices for farmers and agricultural enterprises for inputs such as water and fuel (see Table 3).

In many instances, attempts at estimating the size of these off-budget items indicate a huge parallel structure that is not subject to public scrutiny precisely because they are off-budget. AgPERs typically point out the existence of off-budget items but none reviewed were able to actually include them in the analysis, because it is difficult to access this data or reconcile it with the public expenditure database. This creates a problem because these off-budget entities operate in an autonomous manner with only ad-hoc links to the Ministry of Agriculture.

Diagnosis 1 (Budget Composition): Under-investment in public goods. Public goods are those goods that are neither excludable nor rivalrous, thus its provision is expected by the public sector. In the agriculture sector, such goods include investments, such as rural infrastructure (e.g., rural roads), off-farm irrigation, training and research, technology transfer to small farmers, sanitary systems, natural resource conservation and environmental programs, and emergency programs. It is difficult to say exactly how much of agriculture expenditure should be directed at public goods as opposed to private

TABLE 3: Summary of Status of Off-Budget Costs for Selected Countries

COUNTRY	SHARE OF OFF-BUDGET FUNDS IN TOTAL BUDGET (%)
Honduras	All donors: 70.5 % (of only recurrent costs) and 77.1 % (of only capital costs)—2003–06
Uganda	USAID and SIDA (Sweden) only: 14.1 %—2005–06
Nigeria	Exact total amount of donor-funded cost figure could not be obtained—The AgPER put together an incomplete list of donor project costs but was unable to compile a complete list.
Lao PDR	Exact total amount of donor-funded cost figure could not be obtained—Some are on-budget, whereas others are off-budget. For on-budget figures, donor funded budget accounted for 75 % of total capital expenditure in 2004–05. No further disaggregation is available for such donor funded budgets.
Kazakhstan	Kazagro (SOE) and its subsidiaries: 18.7 % (from external and domestic borrowing, not from national appropriation)—2008
Russian Federation	Total amount of off-budget seems high but the exact scope could not be obtained. Off-budget costs consist of government departments that collect fees for services provided, state unitary enterprises (SUEs), and state-owned enterprises (SOEs).
Mexico	There are six different tax exemptions for agriculture that total 0.3 % of national GDP. A subsidy for electricity use for farmers means that farmers pay on average for only 29 % of their water use while industry users pay 94 % and urban domestic users pay 43 %.

Source: Respective country AgPERs.

goods or subsidies, because that should be determined at each country level. However, the cost to agricultural growth of subsidizing private rather than public goods is high—Lopez and Galinato (2007), using a dataset of 15 Latin American countries without increasing the overall level of expenditure, found that re-allocating 10 percent of subsidy expenditure to the provision of public goods from private goods increases per capita agricultural income by 5 percent.

The reason why public goods provision is typically low lies in the politics of subsidies. Subsidies are, naturally, more palatable to politicians because they can easily translate to votes as the benefits are direct and tangible. Often, input and output subsidies are highly regressive since the amount of subsidy is often based on input use, land size, or output level. Thus, it becomes a powerful political tool to win the support of large producers who have more influence in political matters. Also, international experience demonstrates that once they are established, subsidies create strong, vested interests that make their reform politically difficult.⁶ On the other hand, public goods are, by definition, non-exclusive, thus their distributional impact is fairly even and they do not carry the same appeal.

Diagnosis 2 (Budget Composition): Lack of coordination within the Ministry of Agriculture results in programs that contradict or duplicate each other's objectives. This is an example of a consequence of poor strategy and planning. As in any large organization, there are often cases where the same Ministry of Agriculture may be implementing programs that are providing very similar services to the same target beneficiary, at times with slightly different eligibility criteria to qualify for services. Worse are situations where programs by the same ministry contradict each other, such as cases where a market support payment for certain basic grains is offered by one program, while another program is trying to convert the same producers to transition out of basic crop production into higher value crops.

6 In the EU, as much as 80 percent of its subsidies go to the richest 20 percent of farmers. In France, the largest recipient of the EU Common Agricultural Policy payments, 12 percent of the farmers receive more than 40 percent of total CAP payments (World Bank, 2006b). For the US, during the period of 1995-2006, among farmers eligible for subsidies, just 10 percent of recipients collect 74 percent of all subsidies amounting to \$130.6 billion—an average of \$36,290 per farm. By contrast, the average subsidy granted to the bottom 80 percent of recipients was \$731 annually (Environmental Working Group Farm Subsidy Database). In Mexico, the richest producer decile received 52 percent of all agricultural subsidies while the poorest decile received only 1.6 percent (World Bank 2009).

Diagnosis 3 (Budget Composition): Insufficient budgeting of operational and maintenance costs for existing infrastructure or programs. Existing infrastructure is often neglected or utilized under-capacity due to lack of sufficient operation and maintenance costs. This is often related to situations where the infrastructure was financed by an external financing source with the expectation that the operational and maintenance costs would be covered by national budgets, either from the time of construction or after close of project.

Budget Formulation Stage: Options for Improvement

(1) Options to improve the formulation process:

1. Finance ministries to provide feedback on quality of budget proposal to line ministries
2. Development partners to move towards adoption of country systems or governments to strengthen reporting requirements of donor-financed project implementation units to the government
3. Introduce regulations to allow for adequate oversight of SOEs to bring them under similar reporting obligations as directly budgeted public programs

(2) Options to improve the budget composition:

4. Better documentation through evaluation reports of the high returns to investment for key public goods to make the case for more investment in public goods
5. Feasibility studies of infrastructure projects should include a systematic estimation of recurrent costs using established standard unit costs.
6. Government and development partners to conduct periodic AgPERs to systematically assess the budget program to national and sector strategies

Option 1 (Budget Formulation): Finance ministries to provide feedback on quality of budget proposal to line ministries. The Ministry of Finance often complains about the particularly low quality of budget proposals from the Ministry of Agriculture. Countries with large food import bills or chronic food insecurity situations, in particular, consider agriculture to be key priorities. However, Ministries of Finance have established criteria for allocating budget across sectors and rely on line ministries to present proper justification in the

form of budget proposals that are aligned with well articulated sector strategies and investment plans. One possible way to improve this would be for the Ministry of Finance to provide feedback to the line ministries, including Ministry of Agriculture, to help them improve the proposal quality by offering guidance and training and introducing best practices.

Option 2 (Budget Formulation): Development partners to move towards adoption of country systems or governments to strengthen reporting requirements of donor-financed project implementation units to the government. The budget should be anchored in the strategy formulated in the first stage of the BCF and should attempt to not leave out large “off-budget” items. In Africa, the CAADP process is a regional approach for the agriculture sector that offers a structured process to conduct sector reviews, including the government, development partners, and relevant stakeholders. However, past efforts through donor consultations have yielded very few results in incorporating donor-funded projects into government treasury information systems. For middle-income countries with relatively strong country systems for public sector management, governments should advocate the use of country systems for donor-financed projects that will result in the incorporation of financial information of donor-funded projects into government accounts. For low-income countries with weak country systems, the government should advocate and donors should support—in line with the aid effectiveness principles that donors have agreed to—the strengthening of reporting requirements for the financial flow of donor-financed projects to ministries in a format that allows for off-budget expenditures to be reconciled with the government accounting system. Typically, the final responsibility of proper budget formulation, which should theoretically include current “off-budget” items, rests with the highest level civil servant in a ministry (e.g., the Permanent Secretary). Donors could strengthen the fiduciary (especially accounting) function of this office.

Option 3 (Budget Formulation): Introduce regulation to allow for adequate oversight of SOEs to bring them under similar reporting obligations as directly budgeted public programs. In the case of SOEs, which is common in many transition economies, tighter regulation is required for their fee structure, as well as the service standards, given the low transparency of their operation. Tentative evidence in AgPERs of Russia, Ukraine, and Kazakhstan indicate the large scale of such off-budget expenditures and their possible distortionary effects, but the exact scale of the operation remains unreported back to the government and almost nothing is available for public review. Tighter regulation on the fee structure and service quality is needed as along with

a reporting system that will allow for proper government oversight. An annual operating budget and schedule of fees should be approved by the responsible government agency on an annual basis and their operation should be subject to the same level of regulation and monitoring as directly-budgeted expenditures.

Option 1 (Budget Composition): Better documentation through evaluation reports of the high returns to investment for key public goods to make the case for more investment in public goods. Estimated returns to additional agricultural investment are high. The most frequently estimated returns are for investment in agricultural research and extension. A synthesis of nearly 700 of these rates-of-return estimates in the developing world indicated an average return to investment in agricultural research and extension of 43 percent a year (Alston et al 2000). Returns are high in all regions, including SSA (which averaged 35 percent). Even discounting for selection bias in evaluation studies and other methodological issues, there is little doubt that investing in research and development can be a resounding success. Evaluation reports that can demonstrate similar results in the local context would strengthen the case for more investment in public goods. Investing more in public goods usually involves an accompanying reduction in the provision of private goods or subsidies, which can be a difficult process. Thus, when new subsidies are initiated as a response to some shock they should be designed to minimize its distortionary impact by incorporating conditions for “smart” subsidies (see example on Africa in Good Practice Box 5).

Option 2 (Budget Composition): Include in project feasibility studies of infrastructure projects a systematic estimation of recurrent costs using established standard costs. To avoid the commonly cited examples of neglected or under-utilized infrastructure due to lack of sufficient operation and maintenance costs, recurrent costs necessary to properly operate and maintain the infrastructure need to be estimated and budgeted (see example on estimating recurrent costs in Good Practice Box 5).

Option 3 (Budget Composition): Government and development partners to conduct periodic AgPERs to systematically assess the budget program to national and sector strategies. An agriculture public expenditure review (AgPER) is intended to assess the status of the public expenditure program in the sector according to criteria such as efficiency, equity, and sustainability, and offer suggestions to improve its impact on sectoral performance. In Africa, the AgPER is institutionalized in the regional approach to agricultural development, the New Partnership

GOOD PRACTICE BOX 5: Improving the Budget Composition

Africa—Conditions for “smart” input subsidies

There are compelling rationales for implementing “market smart” subsidy programs when markets do not function properly. Voucher systems have proven more effective for providing inputs and less likely to distort input markets than the direct subsidies and centralized input procurement and distribution systems used intensively in the past. The benefits of a smart subsidy include increased agricultural output, the promotion of private input markets, and increased adoption of new technologies by poor farmers, all of which ultimately result in sustained poverty reduction.

But achieving benefits depends greatly on how the program is designed and implemented. The experience from several African countries, especially Malawi, Tanzania, and Zambia, provides practical guidelines for maximizing the effectiveness of input subsidies in meeting the objectives of improving food security, alleviating hunger, and increasing equity. To be “market smart,” input subsidies should: (i) be directed at poor farmers to encourage incremental input use by people who would not otherwise use inputs; (ii) not displace existing commercial sales; (iii) use vouchers, matching grants, or other instruments and strengthen existing private distribution systems; and (iv) be introduced for a limited period with a clear schedule for phasing out once their purpose has been achieved.

Source: Morris, M., V.A. Kelly, R.J. Kopicki, and D. Byerlee (2007): Fertilizer Use in African Agriculture: Lessons Learned and Good Practice Guidelines. Washington, DC: World Bank, and World Bank, World Development Report 2008: Agriculture for Development (Washington, DC: World Bank 2007) as cited in World Bank (2010a).

A suggested workable sequence to estimate recurrent costs

- Collecting standard costs from national and international experience and technical manuals. Although the requisite information is generally available, this is a substantial exercise that requires structuring the information clearly and arranging for updating it at least annually
- Deciding on the time period over which the recurrent costs are to be estimated (a minimum of five years after project completion)
- Deciding on the cost elements to be considered—primarily for labor (especially the higher-level skills required, e.g., surgeons in hospitals); durable goods (especially expensive equipment, e.g., x-ray machines), and materials; fuel and power supplies; and maintenance of buildings and other physical facilities
- Deciding on a standard, simple format for preparing the estimates and aggregating them by sector and nationally
- Including in the terms of references for the feasibility studies of projects, the requirement to estimate future recurrent costs on a standard format
- Limiting detailed recurrent cost estimation to large projects; for smaller projects, approximate calculations should be sufficient
- For large projects, examining alternative variants of project design that have different combinations of initial investment and future recurrent costs

Source: Schiavo-Campo (2008).

for Africa’s Development (NEPAD). One of the initial tasks for each country to undertake in NEPAD’s flagship program to raise agricultural productivity, the Comprehensive Africa Agriculture Development Program (CAADP), is an AgPER

that documents the level, composition, and quality of expenditures in the sector. AgPERs have been carried out in other regions by development partners on a more ad-hoc basis, often by request of the Ministry of Finance.

STAGE 3: BUDGET EXECUTION

Budget Execution Stage: Common Diagnoses

(1) On budget system

1. Fund disbursements are insensitive to the agriculture production calendar
2. Large discrepancies exist between planned and actual expenditures
3. High wastage and leakage of program funds

(2) On program design

4. Actual program design is unsuitable for reaching its intended objectives
5. Some agricultural programs have large negative environmental externalities

Diagnosis 1 (Budget System): Fund disbursements are insensitive to the agriculture production calendar. The need for agriculture spending tends to be highly concentrated in certain crucial times according to the agriculture production cycle. However, the budget is typically released to operational units in equal installments throughout the year causing cash flow problems for those key times. For example, input subsidies need to be disbursed before the planting season; otherwise, it must wait until the next planting season. Slight delays in budget releases can cause huge negative impacts for many agricultural programs, which, in turn, affect the feasibility for the government to undertake certain agricultural programs.

Diagnosis 2 (Budget System): Large discrepancies exist between planned and actual expenditures. The reviewed AgPERs showed large discrepancies between planned and actual budget execution far exceeding accepted international standards developed under the Public Expenditure and Financial Accountability partnership that say actual expenditures should deviate no more than 10 percent from the budget (World Bank, 2006a) to qualify as efficient execution (see Table 4). A review of AgPERs has found that, typically, execution rates are higher for recurrent costs, of which a large portion consists of salaries, compared to capital costs. In terms of funding source, execution is higher for nationally funded programs as opposed to foreign financing, which tends to have stricter fiduciary requirements that delay disbursement. The gap can arise from two factors: (i) discrepancy between the amount of budget approved and the amount of budget actually disbursed to the ministry and (ii) low disbursement by the ministry to intended activities. There are myriad underlying causes for these low rates. For the first factor of discrepancy between the approved amount and the disbursement to the ministry, the underlying causes include late release of funds, cutbacks in approved budgets due to revenue shortfalls or unforeseen demands on available funds, and so on. For the second factor of low disbursement within the ministry, the underlying causes include procurement delays; low accountability and non-transparent fiscal relations between state and local government; weak internal institutions and implementation plans involving the various executing agencies; weak monitoring systems to track the delayed disbursements of approved funds; poor expenditure recording; unauthorized expenditures; poor internal controls; no uniform formats; late reporting; and so on.

TABLE 4: Budget Allocation versus Disbursements

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	AVERAGE EXECUTION RATE (%)
Honduras											
Ag. & Forestry	n.e.	67.7	64.9	56.6	73.4	56.8	44.9	60.1	57.3	62.4	59.4
Nigeria											
Ag.	n.e.	n.e.	n.e.	n.e.	91	58	60	85	103	n.e.	79
Ethiopia											
Ag. & Rural	83	86	72	71	80	79	85	82	n.e.	n.e.	79.8
Uganda											
Ag., Animal Industries & Fisheries*	n.e.	n.e.	n.e.	n.e.	85.2	82.1	103.5	160.5	118.7	90.4	106.7

Source: Brzeska and Fan (2009).

Note: n.e. = not estimated, * = Recurrent cost only

Diagnosis 3 (Budget System): High wastage and leakage of program funds. This was frequently cited in different AgPERs as teams tried to follow the money and goods from the central cost center of the Ministry down to the beneficiaries. The flow of funds and goods were fraught with inconsistencies that could be a result of poor record keeping, diversion of resources away from the intended beneficiaries, corruption, resource misallocation, or improper accounting indicating high wastage and leakage of program funds.

Diagnosis 1 (Program Design): Actual program design is unsuitable for reaching its intended objectives. The review found multiple cases where the activities of the main program do not support the stated program objective and where necessary and logical inputs to enable the success of the intended program were missing. An example of the former is when a program's intended goal is stated as promoting diversification or transition of subsistence farmers to commercial agriculture, yet there is no technical assistance contemplated under the same program to facilitate this transition. An example of the latter is when research suitable for small farmers is conducted, but the results are not sufficiently disseminated to the extension workers who interact with them. Another example is the promotion of animal vaccines in the absence of complementary disease control measures, which considerably weakens the efficacy of the vaccines.

Diagnosis 2 (Program Design): Some agricultural programs have large negative environmental externalities. Cited examples of agriculture programs with large negative environmental externalities in various AgPERs include subsidies to inputs, such as electricity subsidies to farmers to pump groundwater or agrochemicals or by not properly charging for water used in irrigation. In most countries, the agriculture sector uses 70 to 80 percent of the available water. Thus, in countries or regions where water is scarce, it is often an area where agriculture programs cause negative environmental impacts, unless safeguard measures are carefully designed in the program. Also, at the same time that agriculture will likely be seriously impacted by climate change, the sector is also part of the problem because it accounts for 30 percent of global greenhouse gas emissions globally.

Option 1 (Budget System): Prioritize agriculture expenditures during key times in the production cycle. Some agricultural budgets are extremely time sensitive because input needs are directly linked to agro-ecological and weather conditions. The Ministry of Agriculture could highlight those specific cost items that are particularly time sensitive and develop a mechanism with the Ministry of Finance to ensure

Budget Execution Stage: Options for Improvement

(1) *On budget system*

1. Prioritize agriculture expenditures during key times in the production cycle
2. Carry out a Public Expenditure Tracking Survey (PETS) to quantify wastage and leakage

(2) *On program design*

3. Scrutinize program design against its intended goals through a rigorous results oriented logframe or other similar M&E tools
4. Conduct impact analysis such as equity analysis of subsidies or environmental assessments to guide reform of major programs

that funds for those items will be prioritized to meet the window of need.

Option 2 (Budget System): Governments to conduct a Public Expenditure Tracking Survey (PETS) to quantify wastage and leakage. Innovative tools, such as Public Expenditure Tracking Surveys (PETS), have been successfully used in several countries for public services like education, health, and agriculture in identifying wastage and leakage in expenditure (see example on Uganda in Good Practice Box 6).

Option 1 (Program Design): Scrutinize program design against its intended goals through a rigorous results oriented logframe or similar monitoring and evaluation tool. A good monitoring and evaluation system is expected to feed into program implementation so that the program manager can make any adjustments to improve the implementation and design of future programs.

Option 2 (Program Design): Conduct impact analysis, such as equity analysis of subsidies or environmental assessments, to guide reform of major programs. Options to improve the design of major programs should be included in a comprehensive AgPERs to win engagement of the Ministry of Agriculture in the exercise. Although an AgPER is an analytical piece dealing squarely with the agriculture sector, the country counterpart for the implementing team conducting the AgPER is typically the Ministry of Finance, as they are the agency that is the most concerned with efficiency of public expenditure use. Also, they are familiar with the PER tool through their collaboration on country PERs with development partners.

GOOD PRACTICE BOX 6: Quantifying Waste and Leakage**Uganda—PETS**

The Uganda AgPER conducted a Public Expenditure Tracking Survey (PETS) for six major agriculture programs that accounted for 74 percent of Uganda's Ministry of Agriculture's budget. Uganda has considerable experience in conducting PETS—it began in 1996 to explain poor performance and identify leakages in the education sector. Since then, PETS has become the standard tool for measuring the effectiveness of public sector service delivery in corruption. The PETS drew on a range of primary and secondary information, beginning with preliminary interviews with government officials, both at the Ministry of Agriculture and in local governments, and moving on to include project documents, government reports and budgets, various policy documents, fieldwork, and interviews of beneficiaries at the national, district, and sub-county levels.

Main Findings of the PETS

- Despite support rendered by the projects, poor rural infrastructure was found to be severely limiting farmers' access to markets and their capacity to diversify.
- Delays in delivering infrastructure have been significant due to various reasons, such as improper appraisal and feasibility studies, weak coordination of implementation between central and local governments, ineffective procurement, and problems related to land tenure.
- Waste of funds accounted for an average of 43 percent of the budgets for three projects reviewed. This could be reduced through better coordination of activities and adequate operating funds for supervision by local production department staff.
- The unit cost of most works conducted were double to quadruple the cost of similar works and prices of cattle procured centrally under one of the livestock projects was four times the prevailing local prices.
- Goods procured locally cost less and were less prone to wastage and leakage than goods procured centrally.
- Records of transfers of physical and financial resources sent from central management units to the districts often do not match the records of those same resources received at the destination. This could be a result of poor record keeping, diversion of resources away from the intended areas of beneficiaries, resource misallocation, improper accounting, or corruption.
- There was abundant evidence of project-supporting activities for which necessary complementary activities were unavailable to beneficiaries. For example, distributing vaccines for animals but no other complementary measures for effective disease control (resulting in a high death rate).

Source: Adapted from World Bank (2010a).

On the contrary, the Ministry of Agriculture is typically more guarded towards an outsider's detailed inspection because there is a concern that the outcome of the study may result in budget cuts to the sector or some forced reforms. Discussions on options to improve specific program design are not part of the core PER exercise, but it is often useful to gain strong engagement and ownership from the Ministry of Agriculture in the AgPER. This helps them assess reform options that may be of particular interest to them or explain intangible benefits to the Ministry of Finance that some programs offer but may not come through clearly from quantitative impact analysis.

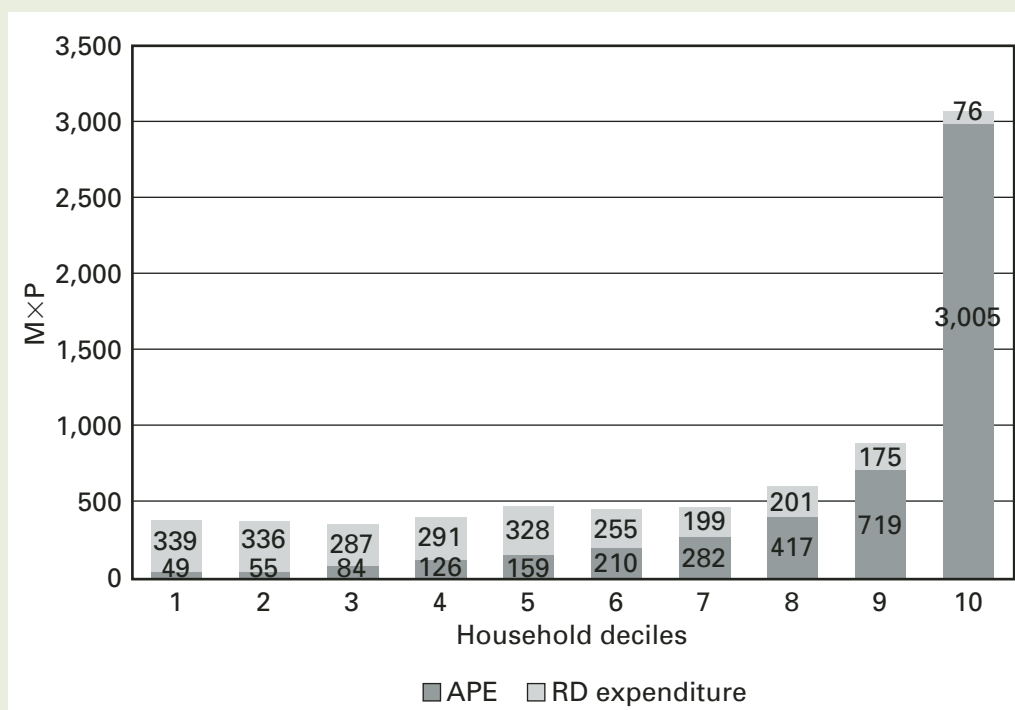
To guide the reform of major programs, rigorous analysis (e.g., equity analysis for highly regressive programs or environmental assessments for programs with high environmental

costs) are often useful in guiding discussions. The Mexico AgPER has an example of an incidence analysis showing that agriculture programs are so regressive that they effectively cancel half the re-distributive effects of non-agriculture rural development programs (see example on Mexico in Good Practice Box 6). In terms of the linkage between environmental costs and agriculture programs, environmental assessments can identify programs that have high negative externalities that will not otherwise come up in an analysis of efficiency in AgPERs. As climate change becomes more of a concern, countries could use more innovative tools to evaluate the carbon footprint of proposed projects. For example, FAO has recently developed a tool called Ex-Ante Appraisal Carbon-Balance Tool (EX-ACT) that could be used to assess the carbon balance of proposed projects (see example on Brazil in Good Practice Box 7).

GOOD PRACTICE BOX 7: Incidence Analysis and Environmental Assessments to Improve Program Design**Mexico—Incidence Analysis of Agriculture and Rural Development Programs**

The Mexico AgPER looked at the public expenditure of all rural development programs including agricultural programs. In the incidence analysis, it found a sharp contrast between the distribution of agriculture public expenditure (APE) and non-agricultural rural development expenditure (RDE). Under certain assumptions, the distribution and income incidence of total ARD expenditures in 2006 was estimated. The distribution of public ARD expenditures is almost flat for the poorest 70 percent, at less than 500 Mexican Pesos per capita per month, but increases sharply at the tenth decile where rural households obtain on average more than 3,000 Mexican Pesos monthly per capita.

Estimated Average Monthly Transfer per Capita to Rural Households from APE and RDE (M×P 2006)
[Rural household deciles ordered from left to right by pre-transfer per capita income]



By calculating the Gini coefficients of the distribution of APE and RDE, the study finds that APE cancels out approximately half of the redistributive impact of RDE. The accounting effect of APE on the rural Gini coefficient is to increase it by 6.7 percent; RDE decreases it by 14 percent, with a net reduction of 6.5 percent associated with total ARD expenditures. In other words, the regressive nature of the APE is so great that it cancels out approximately half of the redistributive impact of RDE on relative inequality measured through the Gini coefficient.

Source: World Bank (2009a).

Brazil: Calculating Carbon Balance for a Rural Competitiveness Project

The EX-ACT (EX-Ante Carbon-balance Tool) developed by the FAO aims to provide ex-ante measurements of the impact of agriculture and forestry development projects on GHG emissions and carbon sequestration, indicating its effects on the carbon balance (C balance = reduced GHG emissions + C sequestered above and below ground). EX-ACT has been developed using mostly the Guidelines for National Greenhouse Gas Inventories (IPCC 2006) complemented with other methodologies and review of default coefficients for mitigation option as a base, so as to be acceptable to the scientific community.

EX-ACT was tested on, among others, the Brazil Santa Catarina Rural Competitiveness Project supported by the World Bank during the preparation phase as a case-study. EX-ACT has been used as a guidance tool during the project design process, assisting project developers to refine project components to increase the environmental benefits of the project. It also provided a basis to highlight the most beneficial practices, in terms of carbon balance, that could be scaled up either during the project implementation phase or in future projects.

The Brazil Santa Catarina Rural Competitiveness Project is aimed at increasing the competitiveness of rural family agriculture producer organizations. Achievement of this objective will be reinforced by providing support for an improved framework of structural, competitiveness-inducing, public-services activities as part of the State Multi-year Development Plan. It would assist the State of Santa Catarina to mainstream sustainable land and water management into the state's development policy and practices at the state, regional, and local levels. It would also scale up sustainable land and water management investments that generate mutual benefits for local livelihoods and national and global environment by contributing to climate change mitigation. The computation of the carbon balance is an indication of the overall potential mitigation impact of the selected project components that were considered as relevant in this type of environmental analysis.

C balance of the SC Rural Competitiveness project calculated by EX-ACT

Total CO₂e sequestered = 15 Mt (avoided deforestation + afforestation + cropland management + agro forestry + grassland)

Total CO₂e emitted = 2 Mt (other land use change + livestock + inputs + investments)

C-balance (emitted-sequestered) = -13 Mt. (Project is a C sink)

CO₂e seq./ha per year = 1 t/ha per year

The overall C balance of the project is computed as the difference between C sinks and sources and has been estimated at about -13 MtCO₂e over 20 years (six years of implementation phase and 14 years of capitalization phase). The project is, in fact, able to sequester 15 MtCO₂e while emitting only 2 MtCO₂e so that the net effect of project activities is to create a sink of 13 MtCO₂e. Since total project area amounts to 661 thousand ha, the average mitigation potential of the project is equal to 1.0 tCO₂e per ha per year.

Source: World Bank (2010b).

STAGE 4: MONITORING AND EVALUATION

Monitoring and Evaluation (M&E) Stage: Common Diagnoses

1. "M&E fatigue"—Each program has too many, irrelevant, and non-uniform indicators and too frequent evaluations
2. Insufficient resources to carry out high quality M&E

Diagnosis 1: M&E Fatigue. Donors who are accountable for funds provided by their taxpayers are under constant pressure to demonstrate tangible results as a direct outcome of their projects. This pressure often results in excessive monitoring (indicator overload) and excessive evaluation. M&E

offices in ministries tend to be small units and can easily be overloaded by the demands of frequent reporting on a large number of indicators and frequent evaluation reports. Also, each program often has their own M&E database, but they cannot be aggregated across the entire Ministry. Thus, at the Ministry level, key questions, such as how much subsidy a small farmer receives in region X in the form of various subsidies, are left unanswered.

Diagnosis 2: Insufficient resources to carry out high quality M&E. Good M&E requires experienced and capable personnel, both in the supervising ministries to design, guide, contract, and monitor, and among local service providers to actually carry out high quality M&E. However, partly because M&E is not an academic discipline taught in universities, the capacity of the personnel who conduct and supervise their work tends to be mixed. Also, well designed evaluation involving data collection at the beneficiary level can be

very expensive, especially for rural programs with highly dispersed beneficiaries in remote and rural areas. Unless a budget is specifically set aside to carry out such exercises, high quality M&E cannot be undertaken.

Monitoring and Evaluation Stage: Options for Improvement

1. Consolidate, prioritize and simplify the existing M&E structure
2. Provide training to raise the capacity of M&E personnel
3. Employ enhanced governance mechanisms such as client satisfaction surveys

Option 1: Consolidate, prioritize and simplify the existing M&E structure. This involves a strategic review and assessment of all the M&E work that is currently being undertaken and mapping out a sensible, prioritized, and simplified M&E structure. The new structure should include less project-specific indicators, more core indicators that will be commonly tracked by all relevant programs, and consolidate a beneficiary database across programs (see example on core indicators developed by the FAO, the Global Donor Platform for Rural Development, and the World Bank in Good Practice Box 8). Also, the frequency of evaluations needs to be considered. It is better to commission a high quality report every other year than to do a rushed, poorly funded annual evaluation report every year. Governments and development partners need to restrain from demanding too much and too frequent M&E.

GOOD PRACTICE BOX 8: Core Indicators for Agriculture and Rural Development

The FAO, the Global Donor Platform for Rural Development, and the World Bank compiled a set of results-based indicators, including a number of core indicators to meet the most basic data requirements of international monitoring. The core indicators were selected on the basis of their simplicity in order to accommodate the limited resources and capacity of institutions responsible for M&E at the national and sub-national levels. Eighty-six core indicators were selected to measure early-, medium-, and long-term outcomes. Of the 86 indicators, 19 were identified as priority indicators, selected specifically as starting points for M&E in less than ideal conditions based on the relative simplicity and cost-effectiveness with which they can be gathered.

19 Priority Indicators

1. (early) Public spending on agriculture as a percentage of GDP from the agriculture sector
2. (early) Public spending on agricultural input subsidies as a percentage of total public spending on agriculture
3. (early) Percentage of underweight children under five years of age in rural areas
4. (medium-term) Food Production Index
5. (medium-term) Annual growth (%) in agricultural value added
6. (long-term) Rural poor as a proportion of the total poor population
7. (medium-term) Percentage change in yields of major crops of the country
8. (medium-term) Annual growth (%) in value added in the livestock sector
9. (long-term) Capture fish production as a percentage of fish stock
10. (long-term) Percentage of land area covered by forest
11. (early) Percentage of the rural population using financial services of formal banking institutions
12. (early) Public investment in agricultural research as a percentage of GDP from the agriculture sector
13. (early) Irrigated land as a percentage of crop land
14. (medium-term) Percentage change in sales and turnovers of agro-enterprises
15. (early) Percentage of farmers who are members of community and produce organizations
16. (medium-term) Withdrawal of water for agriculture as a percentage of total freshwater withdrawal
17. (medium-term) Percentage of change of land area formally established as protected area
18. (medium-term) Percentage change in soil loss from watersheds
19. (early) Percentage of land area for which there is a legally recognized form of land tenure

Source: Global Donor Platform for Rural Development (2008).

Option 2: Provide training to raise the capacity of M&E personnel. The human capacity involved in the M&E system needs to be strengthened through training so that professional M&E specialists can be fostered. This includes the service provider who carries out the evaluation as well as the government officials who commission and review the work. The latter are the ones who must be able to discern pertinent information to provide to senior Ministry officials so that important

M&E results feed into budget discussions and other discussions with donors.

Option 3: Employ enhanced governance mechanisms, such as client satisfaction surveys. Efforts should also be made to improve the existing M&E system by introducing other governance enhancement tools that are appropriate for the country context, such as client satisfaction surveys, citizen score cards, and so on (see example on Ethiopia in Good Practice Box 9).

GOOD PRACTICE BOX 9: Employing Enhanced Governance Mechanisms

Ethiopia's Citizen Report Card

The Citizen Report Card is a simple but powerful tool to elicit systematic feedback from users of public services on aspects of service quality that enables public agencies to identify the strengths and weaknesses of their work. The NGO Poverty Action Network of Ethiopia conducted a citizen report card survey in 2004/05 to investigate the level of public services under the Sustainable Development and Poverty Reduction Program in four sectors: health, education, water and sanitation, and agriculture. It surveyed 3,228 households in Tigray, Oromiya, Southern Nations Nationalities and People's Region, and Dire Dawa. The findings generally reinforce the messages emerging from the Welfare Monitoring Surveys and provide some interesting insights for service providers.

Drinking water

Three-quarters of rural respondents depend on non-potable sources of water for drinking and domestic uses. About half of rural respondents reported scarcity. Natural sources need to be improved, since they provide for many people during times of scarcity. About 70 percent of those using rivers expressed concern about pollution. People feel levels of water supply have improved over the last two years, but lack of access to protected water sources remains a key concern for the majority of Ethiopians. There is wide, regional disparity in the provision of water sources.

Implications for the Plan for Accelerated and Sustained Development to End Poverty (PASDEP): Efforts to increase water supply in the PASDEP are urgent. Give this sector high priority in the event of limited funding. Target the regions with the lowest water supply.

Health and sanitation

In rural Ethiopia, malaria was reported as the most common illness. Access to medical treatment is a major issue for rural communities. Poor access was most acute in Tigray, where 45.5 percent of patients had to travel more than ten kilometers to reach a medical facility. The cost of getting treatment was considered high in government facilities and the cost of medicines varied widely between the regions. Very few respondents reported getting contraception advice from government facilities. Less than a third of people in rural areas reported using a toilet, with custom being the major reason.

Implications for the PASDEP: Place emphasis on malaria. Aim to achieve universal primary health care coverage. Intensify delivery of contraceptive services. Review the cost of medical treatment and drugs. Promote increased use of latrines through health extension packages.

Education

Most children's schools are within three kilometers of their residences. However, in Tigray, a third of children travel more than five kilometers to school. There is an acute shortage of drinking water in schools, with less than a third of pupils in rural areas being able to access it. The cost of education varies widely across the regions. Standards and norms need to be established. Community involvement in schools is high, but more through informal than formal means, and parents said they were highly satisfied with the behavior of teachers but less so with the standard of buildings.

Implications for the PASDEP: Give attention to school construction and facilities. Recognize the communities' involvement in schools. Establish minimum standards of schooling. Review the costs across different regions.

GOOD PRACTICE BOX 9: Employing Enhanced Governance Mechanisms (Continued)*Agriculture*

Government agencies are the main source of information on agriculture for communities. Most support received by farmers is on crop production. Support provided for marketing agricultural products and for providing inputs like seed was quite weak. Most farmers reported that extension agents were available but often were not accessible. Only 56 percent of farmers found extension services adequate. Despite the fact that people felt extension services had improved, satisfaction was low with less than a quarter of respondents being completely satisfied. Only 26 percent of farmers accessed credit. Most farmers used direct marketing, with only 37.5 percent getting a fair price. More than 50 percent of farmers reported the loss of cattle or crops.

Source: Background Report to World Bank (2009b).

Chapter 4: **GUIDANCE FOR GOOD PRACTICE AgPERs**

Increasingly, countries are institutionalizing periodic AgPER exercises as part of their effort to improve the quality of agriculture expenditure. To support this, the World Bank is carrying out more stand alone AgPERs, apart from countrywide PERs, which is a standard core analytical exercise conducted by the World Bank's Poverty and Economic Management Group. In a countrywide PER, agriculture typically is not featured prominently, if at all, due to the low share of the sector in the total public expenditure (typically 5 to 10 percent). Nevertheless, analysis of the sector in countrywide PERs is helpful to the agriculture sector because it provides a comparative assessment of the sector vis-à-vis other public sectors and indicates country-specific issues in public budget management that would also affect the agriculture sector. However, they typically lack, in particular, a rich set of reform options due to their light treatment of each sector. Thus, stand-alone AgPERs provide a valuable opportunity to apply the methodology developed for PERs and combine it with an in-depth analysis of the particular conditions of the sector and, most importantly, propose helpful reform options to improve the expenditure quality.

Unlike other sector work for the agriculture sector, but like countrywide PERs, due to the nature of the study, the request for the World Bank to carry out an AgPER typically comes from the Ministry of Finance, whose primary concern is the perceived low efficiency of public spending in the agriculture sector compared to other sectors. The Ministry of Agriculture may even find such studies threatening and intrusive, as it could expose their low level of efficiency and make undesirable recommendations about changes in their spending patterns. There are advantages to working closely

with the Ministry of Finance, most notably, the strong demand for the results of the study and the fact that they usually have good budget data on which to base the analysis. In some cases, surprisingly, it is much more likely to obtain good consistent public expenditure data on the agriculture sector from the Ministry of Finance than from the Ministry of Agriculture. However, engagement should be fostered, to the extent possible, with the Ministry of Agriculture as they are ultimately in charge of setting the direction of the sector and its implementation. Including practical options to improve major programs or simulate key outcomes from different reform options based on findings in the AgPER will go a long way in this direction.

Since 2000, the World Bank and other development partners have completed over 20 AgPERs around the world (see Annex for a complete list of recent AgPERs), including the case studies carried out under this partnership. Most are for the entire agriculture sector, while some are for the entire rural sector (Mexico) and others are for sub-sectors (water: Lebanon, water: Mexico, land management: Uganda). More AgPERs are in the pipeline, especially in the Africa region, where the Bank has received a grant from the Bill and Melinda Gates Foundation to carry out over 12 AgPERs in the next three years. This is in response to the CAADP process requirements, which identifies as one of the initial tasks for each country, the need to undertake an AgPER that documents the level, composition, and quality of expenditures in the sector. This paper, which summarizes the main lessons learned from recent AgPERs, is accompanied by the AgPER Toolkit, which is a practical guide targeted at practitioners in governments and development agencies tasked to carry out AgPERs.

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ANNEX

LIST OF RECENT AgPERs COMPLETED BY THE WORLD BANK AND OTHER AGENCIES (2000–2010)⁷

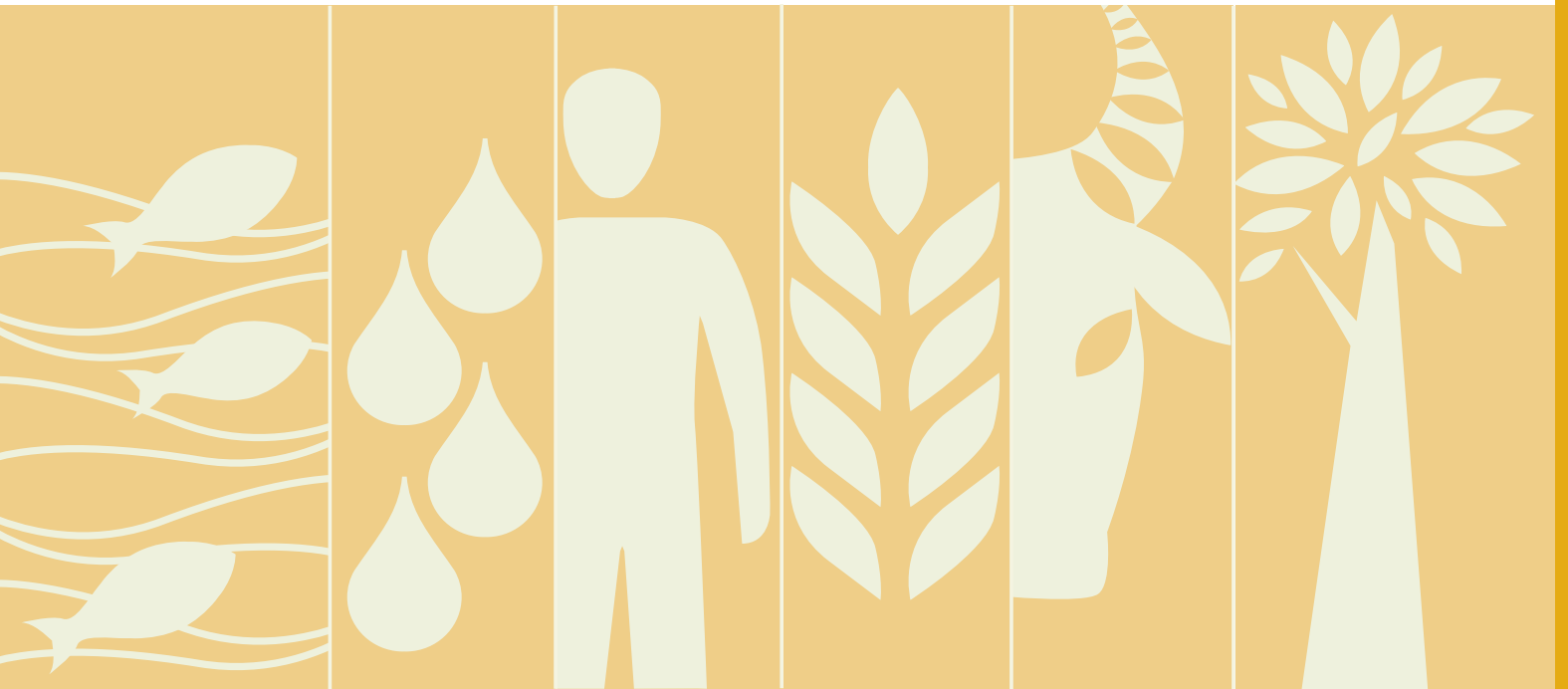
	REGION	COUNTRY	YEAR	TITLE	REPORT NO.	ORGANIZATION
AGRICULTURE GENERAL						
1	AFR	Ethiopia	2007	The Bang and the Burr: Public Expenditures and Rural Welfare in Ethiopia	Research Report 160	IFPRI
2	AFR	Ethiopia	2008	Agriculture and Rural Development Public Expenditure Review 1997/98–2005/06	41902-ET	World Bank
3	AFR	Ghana	2009	Public Expenditure and Institutional Review	GSSP Background Paper 17	IFPRI
4	AFR	Nigeria	2008	Agriculture Public Expenditure Review	44000-NG	World Bank
5	AFR	Nigeria	2008	Agricultural Public Spending in Nigeria	Discussion Paper 00789	IFPRI
6	AFR	Uganda	2010	Uganda: Agriculture Sector Public Expenditure Review	53702-UG	World Bank
7	AFR	Uganda	2004	Public Expenditure, Growth, and Poverty Reduction in Rural Uganda	DSGD Discussion Paper No. 4	IFPRI
8	EAP	Indonesia	2009	Agriculture Public Spending and Growth	Policy Note	World Bank
9	EAP	Lao PDR	2008	Public Expenditures for Pro-Poor Agricultural Growth	AgPER website	DfID/World Bank Partnership
10	EAP	Philippines	2007	A Technical Working Paper Philippines: Agriculture Public Expenditure Review	40493	World Bank
11	EAP	Vietnam	2000	Vietnam Public Expenditure Review Input on the Agricultural and Rural Sectors	Project Paper	IFPRI
12	SAR	Nepal	2000	Public Expenditure Review (In Five Volumes) Volume II: Agriculture and Rural Development	20211 -NEP	World Bank
13	SAR	Nepal	2008	Nepal Agriculture Public Expenditure Review	AgPER website	DfID/World Bank Partnership
14	ECA	Kazakhstan	2010	Public Expenditure and Institutional Review for the Agriculture Sector	Draft Paper	World Bank
15	ECA	Russian Federation	2006	Enhancing the Impact of Public Support to Agriculture and Rural Sectors	39213	World Bank

7 This table (and the documents listed) is available on <http://www.worldbank.org/agper>.

(Continued)

LIST OF RECENT AgPERs COMPLETED BY THE WORLD BANK AND OTHER AGENCIES (2000–2010)
(Continued)

	REGION	COUNTRY	YEAR	TITLE	REPORT NO.	ORGANIZATION
16	ECA	Turkey	2005	Policy and Investment Priorities for Agriculture and Rural Development	Draft Paper	World Bank
17	ECA	Ukraine	2006	Improving Agricultural Fiscal Policy in Ukraine	36970	World Bank
18	MNA	Egypt, Arab Rep.	2009	Linking Funding to Outputs Expenditures of the Ministry of Agriculture and Land Reclamation	47547-EG	World Bank
19	MNA	Lebanon	2010	Lebanon Agriculture Sector Note: Aligning Public Expenditures with Comparative Advantage	Sector Note	World Bank
20	LAC	Honduras	2008	Honduras: Public Expenditure Assessment and Strategy for an Enhanced Agricultural and Forestry Sector	WB AgPER website	Dfid/World Bank Partnership
21	LAC	Mexico	2009	Agricultural and Rural Development Public Expenditure Review	51902-MX	World Bank
SUB-SECTORAL						
Irrigation and Water	LAC	Mexico	2006	Water Public Expenditure Review	36942-MX	World Bank
Irrigation and Water	MNA	Lebanon	2009	Water Sector: Public Expenditure Review	Draft Paper	World Bank
Forestry	AFR	Central African Republic	2001	The Forest Revenue System and Government Expenditure on Forestry in Central African Republic	FSFM/WP/10	FAO
Forestry	AFR	Mali	2001	The Forest Revenue System and Government Expenditure on Forestry in Mali	FSFM/WP/06	FAO
Forestry	AFR	Namibia	2001	The Forest Revenue System and Government Expenditure on Forestry in Namibia	FSFM/WP/09	FAO
Forestry	AFR	Nigeria	2001	The Forest Revenue System and Government Expenditure on Forestry in Nigeria	FSFM/WP/02	FAO
Forestry	AFR	Uganda	2001	The Forest Revenue System and Government Expenditure on Forestry in Uganda	FSFM/WP/08	FAO
Land Management	AFR	Uganda	2008	Sustainable Land Management Public Expenditure Review (SLM PER)	45781-UC	World Bank
Agricultural Information Systems	EAP	Indonesia	2009	Indonesia: Public Expenditures in Agricultural Research and Development	49023-ID	World Bank



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