

The evaluation used four main instruments: a review of the Bank's lending and nonlending activities; country-level agriculture sector reviews; a review of relevant Bank and non-Bank literature; and a survey of Bank staff. In addition, IEG conducted 13 assessments of agricultural projects in various African countries during fiscal 2007.

This appendix describes these instruments. Also included is a section on how IEG identified the Bank's strategic approach in Africa's agriculture sector.

Portfolio Review

The portfolio review was a desk study of projects in the Sub-Saharan Africa agriculture portfolio. The study team first identified all Africa agriculture projects, and then selected a sample for a detailed review of appraisal and completion documents.

Identifying the agriculture portfolio

The review covers the 15-year period from fiscal 1991 to 2006 and is restricted to projects funded by the IBRD and IDA. Using World Bank data, the study team identified the Africa agriculture portfolio using standard Operations Policy and Country Services (OPCS) sector codes, consistent with the methodology used by the Agriculture and Rural Development (ARD) Department to report on lending trends in the sector. The agriculture codes are grouped under two sectors: *Agriculture, Fishing, and Forestry* and *Industry and Trade*. The subsectors under the former are agriculture, extension, and research (AB); animal production (AJ); crops (AH); forestry (AT); irrigation and drainage (AI); and general agriculture, fishing, and forestry (AZ). Relevant subsectors under the industry and trade

sector are agriculture marketing and trade (YA) and agro-industry (YB).

As noted by ARD, problems with the Bank's sector coding system may cause underreporting of lending to the agriculture sector. Investments for agriculture agency reform, land administration, and rural finance in particular may not be fully captured by sector codes.

In the Bank's database, sector codes are mutually exclusive, but thematic codes are not. Therefore, thematic codes have been used to identify projects for more detailed examination, but not for purposes of reporting on lending amounts.

Selection of sample for portfolio review

The database identified 262 agriculture projects approved for Africa during fiscal 1991–2006. However, the database does not recognize a supplemental project as an additional project—only the loan/credit amount is included. The logic is that since the parent project is already in the system, there is no need to count the supplemental separately. The IEG review therefore included supplemental projects when their parent project was approved before fiscal 1991 as a separate project. If the parent was approved during the study period (fiscal 1991–2006), the supplemental was not counted as a separate project, because this would have led to double counting. Hence, 10 additional supplemental projects were added to the identified universe, for a total of 272 projects.

A stratified random sample of 71 projects was selected from the universe of 272 projects for further review. The stratification used two criteria: the number of subsectors and country

type. The sample comprises 54 investment projects and 17 adjustment projects. During the review of the sample, we discovered that two projects had been miscoded as agriculture. One, Benin Urban Rehabilitation and Management (fiscal 1992, P000097), was coded as AI, but the component related to cleaning of storm gutters was not agriculture-related irrigation and drainage. The other, Kenya El Niño Emergency Project (fiscal 1999, P056595) was coded as AI, but project components related to reconstruction of rural water supply (wells, culverts) were not for water for agriculture. These projects were replaced with the next two consecutive projects in the random number list: Uganda Agriculture Sector Management (fiscal 2002, P073604) and Eritrea Emergency Demobilization and Reintegration (fiscal 1996, P037582).

Other components of the portfolio review

IEG Implementation Completion Report (ICR)

Reviews: Extensive analysis of project performance was done for the 144 completed Africa agriculture projects using IEG ICR reviews. The analysis focused on lessons learned from agriculture projects, reasons for less than satisfactory Bank and borrower performance, and sustainability issues.

Monitoring and Evaluation (M&E) Analysis: In January 1996, clarifications from OPCS provided guidance to staff on preparing indicators. Accordingly, the 54 investment projects in the sample of 71 were examined for the extent to which the OPCS guidance had been internalized in project design and implementation and how the trend shifted after 1996. The indicators were categorized into three groups:

1. **Output indicators**—mainly quantitative targets such as number of markets established, number of extension workers, number of smallholders, number of associations established, number of farmers/beneficiaries reached, number of loans, number of village banks established, reduction in fertilizer subsidies, and the like
2. **Outcome indicators**—for instance, improved capacity of relevant ministry, improved research capacity, improved adoption of fertilizers, improved credit access, increased access to extension services, sale of parastatals, increased seedling production, and so on
3. **Impact indicators**—such as increased productivity, increased land fertility, increased cultivated area, increased food security, improved trade balance, increased farmer income, and the like.

The review focused only on agriculture-related indicators. The actual share of agriculture varies considerably across projects, so we did not quantify the number of indicators included in the project documents, and the inclusion of even a single indicator is recorded in the analysis.

Human Resources data: Data for staff mapped to ARD in the Africa Region were obtained from the Human Resources (HR) Department. Staff was categorized as either economists and generalists or technical, based on their title.

Review of Quality Assurance Group (QAG) data: QAG Quality at Entry Assessment (QEA) and Quality of Supervision Assessment (QSA) reports were reviewed for all Africa agriculture projects in the portfolio that have been assessed by QAG. Thirty-seven projects were reviewed for QEA and 43 for QSA.

Country-Level Reviews

CAS/PRSP review

CAS review: To assess the evolution of the focus on agriculture and agriculture-related issues in the Bank's country strategies, two CASs (Country Assistance Strategies) were reviewed from each of the countries. The selection was made based on the availability of a CAS for a country from two periods, one from the 1990s and one from the 2000s. Because Sierra Leone only has a CAS during the latter period, the comparison could not be made for that country. Thirty CASs were reviewed for the remaining 15 countries, for a total of 31 CASs.

PRSP review: Sixteen African countries had completed Poverty Reduction Strategy Papers (PRSPs) as of July 2006. The selected documents

were used to assess the borrowers' focus on agriculture and agriculture-related issues.

In-depth program review

The Bank's total lending program was reviewed in four countries where there has been significant Bank lending for agriculture. This was done to gain an in-depth understanding of the Bank's contribution to development of agriculture in those countries over time. For this analysis, two countries were selected in East Africa (Kenya and Malawi) and two in West Africa (Cameroon and Nigeria).

Project reviews

The review drew upon the findings of 13 project assessments (PPARs) carried out in fiscal 2007:

- Ethiopia: National Fertilizer Sector (ICR in fiscal 2003)
- Ethiopia: Seed System Development (ICR in fiscal 2003)
- Madagascar: Agricultural Extension Program Support (ICR in fiscal 2001)
- Madagascar: Irrigation Rehabilitation (PCR in fiscal 1995)
- Madagascar: Second Irrigation Rehabilitation Project (ICR in fiscal 2001)
- Malawi: Emergency Drought Recovery Project (ICR in fiscal 2005)
- Mali: Agricultural Trading and Processing Promotion Pilot (ICR in fiscal 2003)
- Mali: National Agricultural Research (ICR in fiscal 2002)
- Mali: Pilot Private Irrigation Promotion (ICR in fiscal 2004)
- Tanzania: Agricultural Research Project 2 (ICR in fiscal 2005)
- Tanzania: Agricultural Sector Management (ICR in fiscal 2002)
- Tanzania: National Extension Project 2 (ICR in fiscal 2004)
- Zambia: Emergency Drought Recovery Project (ICR in fiscal 2006).

These assessments provided the review with lessons of experience from the field as well as the perspectives of government officials and other stakeholders on the Bank's agriculture support in the countries involved.

Literature Review

A review of the relevant Bank and non-Bank literature was undertaken to provide a theoretical basis for understanding African agriculture and the Bank's role in its development. The literature review also provided a means for "testing" the findings emerging from the portfolio analysis and the country-level reviews.

A significant amount of research on issues relevant for agriculture and its development in Africa has been undertaken worldwide, including work by the World Bank. Given the diversity of conditions in Africa along with the varying potential for the growth of agriculture in the 47 countries in the Region, such triangulation of evidence is essential to answer the evaluation questions.

The review also built on relevant IEG evaluations, sector and thematic studies, and CASs, all of which are listed in the references at the end of this report.

Staff Survey

This instrument sought the views of relevant Bank staff on internal factors and incentives related to the Bank's assistance for agriculture in Africa. The staff survey was preceded by structured interviews of key staff in the Region and in ARD, which helped inform the design of the questionnaire. A total of 258 headquarters and country office staff and consultants were identified for the survey using the following criteria:

- ARD anchor staff and ARD-mapped staff in agriculture
- Water anchor staff and water-mapped staff in agriculture (excluding water and sanitation engineers, specialists, and financial analysts)
- Staff who are not primarily agriculture experts but have in some way contributed to agricultural development in Africa, as part of a team working on agriculture projects or on relevant transport, trade, or other sector investments; structural adjustment credits; sector work; or research.

The survey was e-mailed to the staff. The results of the survey were shared with management in

the Region and in ARD. The response rate and survey results are reported in appendix F.

How the Bank's Strategic Approach in the Agriculture Sector Was Identified

The broad strategic goals the Bank has pursued in African agriculture over the period fiscal 1991–2006 were extracted from five rural

strategy documents. The documents cover a wide range of issues and their treatment differs across documents. Table A.1, based on IEG's comparative analysis of the strategy documents, shows the set of critical constraints that defined the Bank's strategic approach to agricultural development in Africa during the period.

Table A.1: Identification of Key Constraints/ Priority Areas for Agricultural Development

Constraint/priority	A Strategy to Develop Agriculture in Africa, 1993	Vision to Action, 1997	Action to Impact: Africa Region Rural Strategy, 2002	Reaching the Rural Poor, 2003	Africa Action Plan, 2005
Need for price and market reform	X	X	X	X	
Research	X	X	X	X	X
Extension	X	X	X	X	
Natural resource management					
Soil degradation/conservation soil fertility	X	X	X	X	X
Water management systems/ conservation	X	X	X	X	
Irrigation	X	X	X	X	X
Drought is covered but risk and vulnerability are seen as a broader issue	X	X	X	X	
Food security	X	X		X	
Agro-ecological diversity	X	X	X	X	
Transportation infrastructure	X	X	X	X	X
Credit	X	X	X	X	
Land policy/reform	X	X	X	X	