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PROJECT PERFORMANCE ASSESSMENT REPORT

REPUBLIC OF ZAMBIA

**EMERGENCY DROUGHT RECOVERY PROJECT
(CREDIT NO. 3719-ZA and GRANT NO. H012-ZA)**

May 24, 2007

*Sector Thematic and Global Evaluation Division
Independent Evaluation Group*

Currency Unit = **Zambian Kwacha**

Currency Equivalents (annual averages)

2002	US\$1.00	MZK4426
2003	US\$1.00	MZK4790
2004	US\$1.00	MZK4827
2005	US\$1.00	MZK4724
2006	US\$1.00	MZK3536

Abbreviations and Acronyms

ADRA	Adventist Development and relief Agency
BOZ	Bank of Zambia
CLUSA	Cooperative League of USA
DHS	Demographic and Healthy Survey
DMMU	Disaster Management and Mitigation Unit
FAO	Food and Agriculture Organization
FEWSNET	Famine Early Warning System Network
FNDP	Fifth National Development Plan
FRA	Food Reserve Agency
FSP	Food Security Pack
IDA	International Development Association
MACO	Ministry of Agriculture and Cooperatives
MLGH	Ministry of Local Government and Housing
NAP	National Agricultural Policy
NORAD	Norwegian Agency for Development
PAM	Programme Against Malnutrition
PRGF	Poverty Reduction and Growth Facility
NGO	Non-Government Organization
OVP	Office of the Vice President
PUSH	Programme Urban Self Help
PRSP	Poverty Reduction Strategy Paper
SADC	Southern Africa Development Corporation
UNDP	United Nations Development Program
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VAM	Vulnerability Assessment and Monitoring
WFP	World Food Programme
ZAMSIF	Zambia Social Investment Fund
ZVAC	Zambia Vulnerability Assessment Committee

Fiscal Year

Government January-December

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IEGWB Mission: Enhancing development effectiveness through excellence and independence in evaluation.

About this Report

The Independent Evaluation Group assesses the programs and activities of the World Bank for two purposes: first, to ensure the integrity of the Bank's self-evaluation process and to verify that the Bank's work is producing the expected results, and second, to help develop improved directions, policies, and procedures through the dissemination of lessons drawn from experience. As part of this work, IEGWB annually assesses about 25 percent of the Bank's lending operations through field work. In selecting operations for assessment, preference is given to those that are innovative, large, or complex; those that are relevant to upcoming studies or country evaluations; those for which Executive Directors or Bank management have requested assessments; and those that are likely to generate important lessons.

To prepare a Project Performance Assessment Report (PPAR), IEGWB staff examine project files and other documents, interview operational staff, visit the borrowing country to discuss the operation with the government, and other in-country stakeholders, and interview Bank staff and other donor agency staff both at headquarters and in local offices as appropriate.

Each PPAR is subject to internal IEGWB peer review, Panel review, and management approval. Once cleared internally, the PPAR is commented on by the responsible Bank department. IEGWB incorporates the comments as relevant. The completed PPAR is then sent to the borrower for review; the borrowers' comments are attached to the document that is sent to the Bank's Board of Executive Directors. After an assessment report has been sent to the Board, it is disclosed to the public.

About the IEGWB Rating System

IEGWB's use of multiple evaluation methods offers both rigor and a necessary level of flexibility to adapt to lending instrument, project design, or sectoral approach. IEGWB evaluators all apply the same basic method to arrive at their project ratings. Following is the definition and rating scale used for each evaluation criterion (additional information is available on the IEGWB website: <http://worldbank.org/ieg>).

Outcome: The extent to which the operation's major relevant objectives were achieved, or are expected to be achieved, efficiently. The rating has three dimensions: relevance, efficacy, and efficiency. *Relevance* includes relevance of objectives and relevance of design. Relevance of objectives is the extent to which the project's objectives are consistent with the country's current development priorities and with current Bank country and sectoral assistance strategies and corporate goals (expressed in Poverty Reduction Strategy Papers, Country Assistance Strategies, Sector Strategy Papers, Operational Policies). Relevance of design is the extent to which the project's design is consistent with the stated objectives. *Efficacy* is the extent to which the project's objectives were achieved, or are expected to be achieved, taking into account their relative importance. *Efficiency* is the extent to which the project achieved, or is expected to achieve, a return higher than the opportunity cost of capital and benefits at least cost compared to alternatives. The efficiency dimension generally is not applied to adjustment operations. *Possible ratings for Outcome:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Risk to Development Outcome: The risk, at the time of evaluation, that development outcomes (or expected outcomes) will not be maintained (or realized). *Possible ratings for Risk to Development Outcome:* High Significant, Moderate, Negligible to Low, Not Evaluable.

Bank Performance: The extent to which services provided by the Bank ensured quality at entry of the operation and supported effective implementation through appropriate supervision (including ensuring adequate transition arrangements for regular operation of supported activities after loan/credit closing, toward the achievement of development outcomes. The rating has two dimensions: quality at entry and quality of supervision. *Possible ratings for Bank Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

Borrower Performance: The extent to which the borrower (including the government and implementing agency or agencies) ensured quality of preparation and implementation, and complied with covenants and agreements, toward the achievement of development outcomes. The rating has two dimensions: government performance and implementing agency(ies) performance. *Possible ratings for Borrower Performance:* Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, Highly Unsatisfactory.

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Principal Ratings

	<i>ICR*</i>	<i>ICR Review*</i>	<i>PPAR</i>
Outcome	Satisfactory	Satisfactory	Moderately Satisfactory
Institutional Development Impact**	Modest	Modest	NR
Risk to Development Outcome	——	——	Significant
Sustainability***	Likely	Likely	NR
Bank Performance	Satisfactory	Satisfactory	Moderately Satisfactory
Borrower Performance	Satisfactory	Satisfactory	Moderately Satisfactory

* The Implementation Completion Report (ICR) is a self-evaluation by the responsible Bank department. The ICR Review is an intermediate IEGWB product that seeks to independently verify the findings of the ICR.

**As of July 1, 2006, Institutional Development Impact is assessed as part of the Outcome rating.

***As of July 1, 2006, Sustainability has been replaced by Risk to Development Outcome. As the scales are different, the ratings are not directly comparable.

Key Staff Responsible

<i>Project</i>	<i>Task Manager/Leader</i>	<i>Division Chief/ Sector Director</i>	<i>Country Director</i>
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Preface

This is a Project Performance Assessment Report (PPAR) for the Zambia Emergency Drought Recovery Project (Credit No. 37190ZA, Grant No. H012ZA), which was approved on November 19, 2002, and became effective on February 28, 2003. A credit of SDR 22.8 million (US\$30 million equivalent) and a Grant of SDR 15.2 million (US\$20 million equivalent) were approved to support Zambia's effort to overcome the effects of the 2001/2002 natural disaster caused by floods and drought. The credit and grant were closed on June 30, 2005 after a six-month extension with a cumulative disbursement of US \$53.6 million and a total project cost of US\$57.03 million.

Zambia had also received a grant from the Norwegian Agency for Development (NORAD) Trust Fund through IDA amounting to US\$3.4 million to supplement IDA's resources. The NORAD Grant was declared effective on September 6, 2004 and closed on June 30, 2005 after disbursing US\$2.9 million.

The PPAR findings are based on an IEG mission that visited Zambia in October 2006. Additional information came from an in-depth review of Zambia's agriculture sector to discern the structural causes of food crises beyond the recurrent natural crises; project files, including the Implementation Completion Report (ICR); review of sector studies, including IEG's Country Assistance Evaluation; and IEG's evaluation of Bank assistance for natural disasters. Interviews were also held with officials of the Government of Zambia including the Implementing Agency—the Disaster Management and Mitigation Unit (DMMU) in the Office of the Vice President, and other project implementing and relevant agencies; Zambia's Development Partners including UN, multilateral, bilateral and NGOs; and the Bank's Regional Staff. The PPAR mission visited the Southern Province (one of the drought affected provinces) and met with local government officials and community representatives who participated in the project.

In accordance with standard IEG procedures, a copy of the draft PPAR was sent to the Borrower for their review and comments before it was finalized. The Borrower did not have any comments.

Summary

In May 2002, the Government of Zambia (GOZ) declared the food crisis as a national disaster and issued an international appeal for assistance. An IDA Credit/Grant of US\$50 million equivalent was approved on November 19, 2002. The Project's development objectives were to: (i) alleviate the impact of the drought; and (ii) strengthen the Borrower's capacity to develop, implement and manage medium and long term drought mitigation measures.

The two-year Project was based on the "Government Drought Management and Mitigation Plan: Policy, Strategy and Interventions." It was designed to provide high priority agricultural inputs and other imports with a quick disbursing balance of payments support; generate income for drought affected populations while creating and rehabilitating community assets; assist a targeted agricultural rehabilitation program; and support the Government's effort with technical assistance to improve drought mitigation and emergency response.

The project was launched with initial start-up delays due to lengthy procedures for the selection of consultants and contractors and complex implementation arrangements with multiple layers. Implementation accelerated toward the end of the first year and the project was largely completed having met most of the physical targets. A six-month extension of the Credit Closing Date was approved to complete project works.

IEG rates the project's overall outcome as **moderately satisfactory**. The project objectives and design aimed at addressing the immediate effects of the drought and included measures to respond to long-term sectoral issues. These measures are relevant to the Bank's assistance and the Government's development strategies. However, the Assessment notes weaknesses in the relevance of the design to alleviate the impact of the drought—a key project objective. Moreover, the cumbersome implementation arrangement for the Safety Net and Agricultural components resulted in substantial delays in project start-up, and wage payments to project participants under the Safety Net public works. For an emergency operation, timely start-up and execution is central to ease the stress on households suffering from income losses.

The overall Bank performance is rated **moderately satisfactory** on both quality at entry and supervision.

The Borrower's performance is satisfactory for quality at entry. The GOZ had presented a comprehensive short and medium-term strategy for drought recovery which formed the basis for the design of the project. However, the Borrower's multiple layer of implementing agencies experienced delays in identifying subprojects and in paying contractors, and fell short of completing the agreed physical targets even with a six-month extension of the Credit Closing date. The overall Borrower performance is therefore rated **moderately satisfactory**.

The Risks to Development Outcomes are **significant**. Zambian rural households remain vulnerable to drought and flood episodes and will be exposed to acute food insecurity. The project's short-term interventions—income generating public works and the agricultural rehabilitation program in the project districts may not receive continued support. However, the GOZ is embarking on a long-term agricultural and food security program under the Fifth National Development Plan which has the potential to promote both productivity enhancing technologies and investments.

IEG rates the Monitoring and Evaluation System as **modest** for design, implementation and utilization. The project has financed the preparation of M&E System and Information Management

System. The Disaster Management and Mitigation Unit (DMMU) expects to adopt these systems to help it expedite its nation-wide mandate for drought management and mitigation.

In addition, Zambia has a functioning Vulnerability Assessment Committee that monitors incidence of household food insecurity. Zambia's timely response to the 2005 drought and the current flood damages attests to the effectiveness of the Government's network of disaster management and mitigation.

The key lessons from the project are:

- **Bank assistance should pay particular attention to food security issues in countries with chronic food insecurity and vulnerability to natural disasters.** Zambia is vulnerable to recurrent natural disasters that exacerbate household food insecurity and trigger macroeconomic imbalances. To achieve national and household food security, Zambia needs to invest heavily in productivity-enhancing technologies, irrigation infrastructure and rural roads, and allow a level playing field for both public and private sector service providers. Zambia has the potential not only to feed itself but also to become a granary for its eight neighboring countries. Bank Country Assistance Strategies should do more to recognize natural disasters as risks to development outcomes.
- **To address food insecurity a regional approach which promotes regional trade is needed.** The Southern African states belong to Southern Africa Development Cooperation (SADC) and share many common development challenges—food insecurity, HIV AND AIDS; weak governance; and recurrent natural disasters. The porous borders especially of land locked countries like Malawi, Zambia and Zimbabwe, allow their populations to benefit from informal cross-border trade especially in food. The New Partnership for Africa's Development (NEPAD)-supported framework for promoting food security, one of the Pillars of the Comprehensive Africa Agricultural Development Program, is a suitable forum to pursue such a regional approach to food security.
- **It is essential to the success of a public works project to establish a priority objective between quick income generation, and asset creation and/or rehabilitation with an acceptable technical standard. Appropriate timing of public works is also imperative to avert conflicting labor demand for agriculture.** Public works often have the dual objective of creating, albeit temporary, income-generating employment and the creation and/or rehabilitation of community assets. It is imperative to determine the relative priority assigned to the objective of income generation under an emergency situation. When cash is urgently needed to compensate for losses, rehabilitating or creating community assets that meet national technical standards may be compromised. Often there are trade-offs which should be acknowledged at the time of designing a public works-based recovery project. Public works should also be timed appropriately to avoid possible diversion of family labor from family farm.
- **Careful selection of institutional arrangements to implement emergency operations would allow a quick project start-up and minimize implementation risks.** In this case, the multiple coordination and implementation committees established at national, provincial and district levels appear to have slowed down timely project implementation. A key lesson

emerging from the *Zambian* experience is that when there are well performing ongoing projects, the emergency operation should be designed with a view to providing additional resources to such operations to target drought affected districts.

Vinod Thomas
Director-General
Evaluation

1. Introduction and Background

1.1 Zambia is a landlocked country in sub-Saharan Africa covering about 750 thousand square kilometers with a population of about 10.5 million people. At independence in 1964, the population of Zambia was less than 4 million. Zambia is one of the most sparsely populated countries in sub-Saharan Africa with about 14 people per square kilometer. Annual population growth rate has declined to 2.2 percent during 1990-2005 compared to 3.3 percent during the preceding two decades. An estimated 37 percent of the population is urban, making it one of the most highly urbanized countries in Sub-Saharan Africa. Endowed with abundant natural resources, 58 percent of the total land area is arable. However, only 14 percent of its arable land is annually cultivated. Zambia is also the source of 40 percent of the water resources of the Southern Africa Development Cooperation (SADC) region. Despite the abundance of water and land resources, only 100,000 ha are currently irrigated. Land tenure is dominated by customary holdings assigned to individual farm households cultivating an average of 1.5 ha. Zambia is surrounded by eight countries, offering to trade opportunities and labor mobility.

1.2 Zambia's one-party and one-man rule ended in 1991 when the Movement for multi-party Democracy won the general election marking the birth of multi-party political system. In September 2006, Zambia held its fourth nation-wide election and the incumbent party won the majority vote and President Mwanasa was inaugurated for a second and last term. The wide-ranging economic reform program and improved economic management which resumed in 1999 has shown promising signs of economic recovery. In August 2005, Zambia reached the Highly Indebted Poor Country (HIPC) Completion Point and received substantial debt relief.

Poverty Reduction—A Challenge

1.3 At independence, Zambia had an estimated per capita income of US\$750. In 2005 current prices, the GNI per capita was US\$490. Zambia's heavy dependence on copper export earnings which accounted for 95 of total foreign exchange receipts started to decline in the mid-1970s with falling copper prices. During this period, Zambia experienced persistent macro-economic instability, policy and institutional failures, recurrent natural disasters and continued heavy reliance on a single commodity—copper. These trends resulted in slow economic growth, exacerbating the high incidence of poverty. The latest UNDP Human Development Index ranks Zambia 163 out of 177 countries. According to the 2004 Living Conditions Monitoring Survey, an estimated 68 percent of the population fall below the poverty line and 53 percent are ultra poor. Despite Zambia's improved economic performance since 2002, the overall poverty incidence is 68 percent, the same level as in 1991.¹

1.4 Poverty is predominantly a rural phenomenon. The profile of the poor shows the rural space harboring 78 percent of the poor, and the Western Province has the highest incidence with 89 percent of its inhabitants falling below the poverty line. The Eastern, Northern and

1. Zambia Country Assistance Strategy, World Bank, 1997.

Southern Provinces account for 30 percent of the poor in Zambia. These three Provinces also experience recurrent droughts and floods. Among rural households, small farm operators, female headed households, and dwellers in remote and inaccessible areas comprise the majority of the poor in rural Zambia. Table 1 presents selected indicators.

Table 1. Selected Indicators

	1990	2005
Pop. Growth rate	3.3 (1970-'90)	2.2 (1990-'05)
Poverty Incidence	73 (1998)	68
Life Expectancy	47	38
Maternal Mortality (per 0.1 mill live births)		730
U-5 mortality (per 1000 live births)	180	182
Infant Mortality (per 1000 live births)	101	102

Source: UNICEF: Zambia Statistics, 2006.

1.5 Despite persistent poverty, the high incidence of HIV AND AIDS and poor malnutrition– related indicators, Zambia has scored commendable results in primary school enrollments and is likely to achieve this Millennium Development Goal. However, a key concern is that Zambia needs to improve the quality of its education outcomes to reap the benefit of near universal enrollment.

Poverty Reduction Strategy

1.6 The overall objective of Zambia's first Poverty Reduction Program (PRP) which was launched in 2002 is to: promote a broad-based economic growth to reduce poverty through a combination of growth-promoting investments in key economic sectors. The PRP's primary focus was to improve access to, and quality of, social services, promote agriculture and other rural activities and supporting infrastructure, improve governance, and combat HIV AND AIDS. The PRP further outlines the poverty reduction strategy for the rural sector: (i) improve rural infrastructure particularly rural roads to reduce production costs; (ii) promote employment opportunities through large-scale agriculture, agro-processing and out grower schemes; (iii) support non-farm rural small-scale enterprises; (iv) enhance food security among smallholder agriculture; and (v) social interventions in education, health, sanitation. The Agriculture Commercialization Program (ACP) was also formulated as the agricultural component of the PRP to guide the sector's vision as set out in the National Agricultural Policy (NAP--2004-20015). While the PRP had identified the strategies and areas for intervention, the required resources to implement the planned investment program particularly in the agriculture sector fell significantly short of planned allocations.

The Agriculture Sector

1.7 Agriculture is the mainstay of the rural economy. The sector including agro-processing contributes about 40 percent of the Gross Domestic Product (GDP), 67 percent of the total employment, supplies the bulk of raw materials which account for over 80 percent

of the manufacturing sector's value added, and contributes more than 12 percent of the foreign exchange earnings. The Zambian agriculture sector is dualistic with the vast majority of producers being smallholders growing mainly cereals and tubers with an average customary holding of about 1.5 hectares. Smallholders are predominantly subsistence and depending on the performance of maize production, about 50 percent of production is marketable surplus. In contrast, the large commercial estates grow maize and industrial crops on leased land.

1.8 Agriculture in Zambia is vulnerable to climatic variability caused by floods and dry spells posing risks to macro-economic stability. The GOZ has placed agriculture as one of the key priority sectors for economic growth, development and poverty reduction. The vision for the Government is thus to develop an efficient and competitive agricultural sector that assures food security at both household and national levels and also maximizes the contribution of the sector to GDP.

Performance of the Economy and the Agriculture Sector

1.9 The first decade following independence in 1964, Zambia enjoyed substantial revenues from mineral export earnings and was sheltered from external shocks. This was short lived. Macroeconomic instability, incomplete policy implementation, and inefficient state-owned enterprises began to be a drag on the economy. This was compounded by a collapse in copper prices, oil price shocks, and a continuing contraction of food production. Since the mid 1990s, the government had initiated a series of market-orientated reforms and sought to improve macroeconomic management. Since 2001, Zambia has attained positive per capita income growth. These developments are supported and driven by favorable trends in commodity prices, especially for copper. However, faster progress in reducing poverty will require an acceleration of growth from its current 4-5 percent to 8 percent. In April 2005, Zambia became the 17th country to reach the HIPC completion point.

1.10 Agricultural growth during 2001-2002 failed to keep up with the population growth rate. In 2002, agriculture's poor performance was further aggravated by drought. Between 2001-2005, food aid provided the cushion for the food gap. Despite the high potential for agricultural development, Zambia lacks coherent sector policies, and suffers from institutional failures to deliver technology services and critical farm inputs, and inadequate investment in irrigated agriculture and rural infrastructure. Zambia has the potential to emerge as a bread basket for the SADAC food deficit countries. This will require a major shift by Zambia's agricultural policy makers from a strategy with the fertilizer subsidy program as a driver of food security to a comprehensive development agenda. Following the recent election, the Government fulfilled its campaign promise by raising the fertilizer subsidy from 50 to 60 percent, further starving the much needed investments in improving agricultural services and irrigation. Table 2 presents selected economic and sectoral indicators.

Table 2. GDP and Agriculture Sector Performance Indicators

Indicators	2001	2002	2003	2004	2005
Real GDP Growth (%)	2.4	3.3	5.1	5.4	5.2
Ag. GDP Growth (%)	1.0	-1.7	5.1	4.2	2.8
Ag. Share of GDP (%)	22	22	23	21	19
Food Aid (000 MT)	45	69	152	108	128

Government Agricultural Development Strategy

1.11 The National Agricultural Policy (2004-2015) provides the overall vision, policy and strategic framework for the development of agriculture. The NAP's vision for the sector is to develop a competitive, efficient and sustainable agriculture sector which assures food security and income.² This vision statement contains laudable concepts which entail trade liberalization, improvements in the delivery of agricultural technology services and functioning input and output markets, and careful management of natural resources with a view to reducing poverty and attaining food security. Investing in long-term productivity-enhancing measures particularly for small holder agriculture will require a long term consistent policy, and institutional and resource commitment. The current GOZ focus is on the provision of subsidized fertilizer which absorbed nearly 60 percent of the agriculture budget in 2006 at the expense of high priority long-term investments. Other complementary investments in rural infrastructure, the development of non-farm rural income, access to rural financial services are equally critical to the development of the agriculture sector and poverty reduction.

1.12 In November 2006, the GOZ approved the Fifth National Development Plan-(2006-2010) (FNDP) which will represent Zambia's Second Poverty Reduction Program. The FNDP contains the key elements of the NAP with detailed planned resource allocation. Fertilizer subsidy is scheduled to be phased out by 2009 while resources for irrigation development, agricultural research and extension would increase substantially during the plan period. The overall budget allocation for agriculture including irrigation development is expected to reach 8 percent of total GOZ budget expenditure equivalent to 2 percent of GDP by 2010. While these are ambitious targets, to reduce poverty and attain national food security, it is imperative for Zambia to adhere to its planning commitments.

1.13 World Bank assistance in the agricultural sector was nearly absent between 2001 and 2006. In 2001, the Agricultural Sector Investment Program (ASIP) closed with unsatisfactory outcomes. Preparation of a follow-up Agricultural Development Project (ADP) was initiated in 2002 and was approved in April 2006. The ADP is aimed at promoting the commercialization of smallholder agriculture particularly export crops. However, the majority of Zambian smallholders produce the principal food security crop,

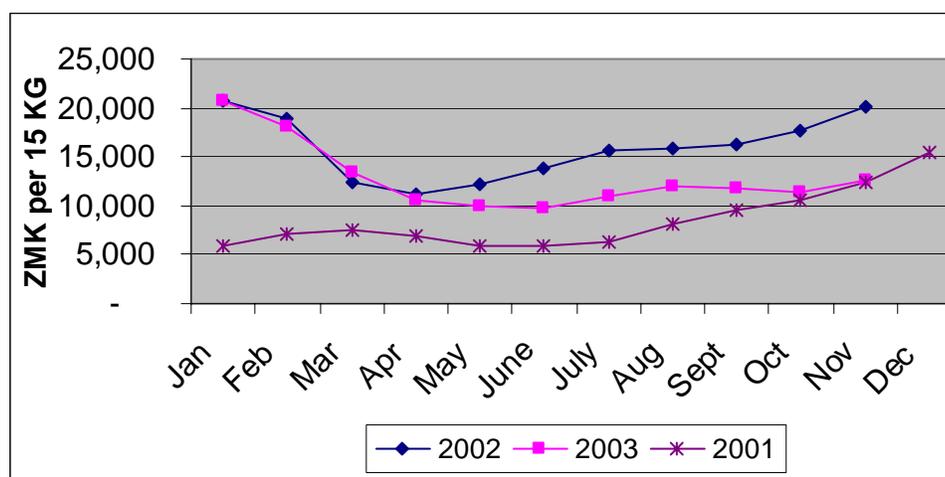
2. Ministry of Agriculture and Cooperatives: National Agricultural Policy: 2004-2015, November 2004.

maize. Efforts to reduce poverty and attain food security require investing also in improving productivity in maize and other food crops—an area that has been overlooked in the past.

The 2001/2002 Food Crisis

1.14 During the 2001/02 drought (which was preceded by floods in selected regions at early stages of the crop season followed by dry spells), Zambia faced a maize shortage to the tune of 0.6 million tons to meet the annual domestic consumption requirement of 1.2 million tons. An estimated 2.9 million people in 38 Districts out of 72 Districts in Zambia were severely affected by food shortages. Notwithstanding the poor harvest in 2001/02, poor management of maize imports had further exacerbated the food crisis. To close the estimated food gap, in 2001 GOZ had earlier authorized imports of 200,000 tons of maize through private sector suppliers to be sold at subsidized prices to millers. Due to the scarcity of foreign exchange reserves, the deliveries were delayed and only about 65 percent of the planned maize import arrived in May 2002 when prices started a rising trend and peaked in December 2002. Since the GOZ had granted a subsidy to selected importers and millers, other importers were discouraged from importing which put supply pressure on the market. In August 2002, the peak of the food crisis, the GOZ's refusal to accept genetically modified maize as food aid further compounded the food shortages. Maize prices sharply increased during September-December 2002 and following the arrival of food aid, and private and public sector imports, prices started to decline in February 2003. Figure 1 presents monthly prices of maize for the period 2001-2003.

Figure 1. Maize Monthly Retail Prices



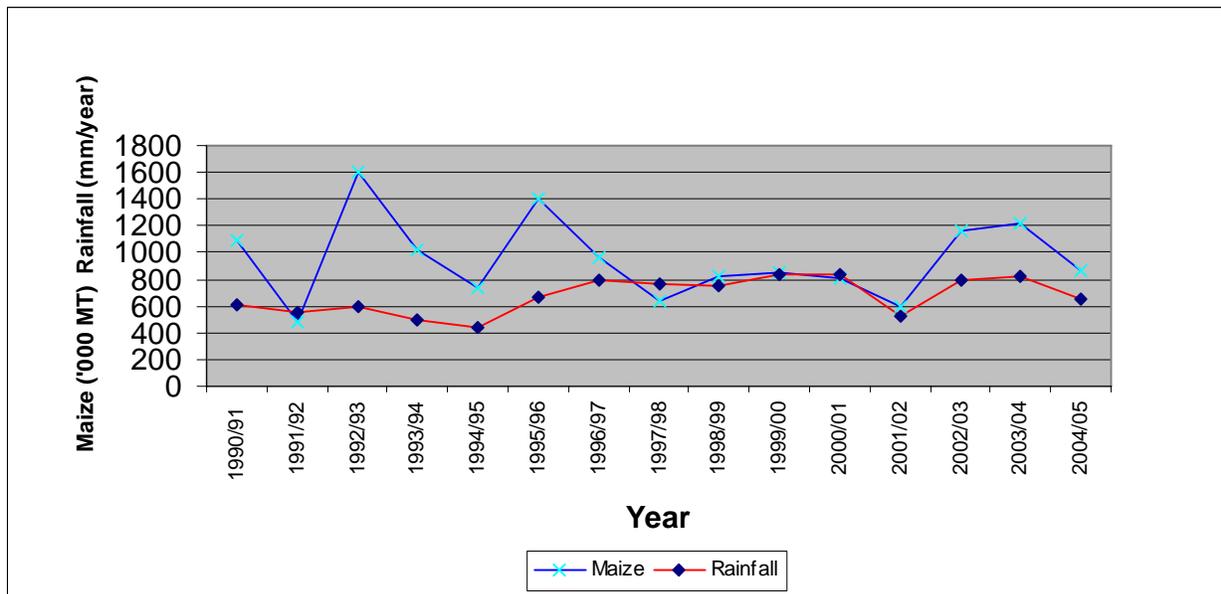
Source: Based on data from Central Statistics Office, Government of Zambia.

1.15 In 2002/03 agricultural production rebounded and in 2003/04 maize production remained at nearly the same level as in the previous season. However, in 2004/05 another mild dry spell struck Zambia and resulted in a maize shortfall of 0.4 million tons but the crisis was contained with timely food aid deliveries and private sector imports. In 2005/06 Zambia's agriculture scored a sharp 64 percent increase in maize production resulting in a

surplus of 0.4 million tons which became a major marketing challenge particularly for small farmers.

1.16 Figure 2 presents Zambia's annual maize production and rainfall. Since 1990/91, compared to the 15 year average maize production, the average annual variation is negative 10 percent, largely accounted by variation in yield³. The average annual rainfall variation for the same period is negative 3 percent, much lower than the maize production variation suggesting the presence of other production constraints. Other key factors such as support services, timeliness and affordability of productivity-enhancing inputs are the critical determinants of maize yields. Since 2002/03, an estimated 120,000 farmers or 15 per cent of the total smallholders in Zambia annually benefited from GOZ's Food Security Pack (FSP) distributing free fertilizer and seeds, and Fertilizer Support Programme with a 50 percent subsidy on fertilizer and seeds.

Figure 2. Maize Production and Rainfall



Source: Based on data from the Ministry of Agriculture and Cooperatives, Government of Zambia.

2. Project Objectives and Design

2.1 The MOP and the DCA share the following Project Development Objectives which articulate clearly the objectives of an emergency operation: (i) alleviate the impact of the drought; (ii) strengthen the Borrower's capacity to develop, implement and manage medium and long-term drought mitigation measures. However, the MOP adds an ambitious objective: to assist the GOZ in maintaining key commitments to economic and investment priorities

3. Due to production shortfalls, for eight out of the last 15 years, Zambia had to rely on imports and food aid to meet domestic requirements.

laid out in the PRP. While desirable, this objective is neither feasible nor appropriate in the context of a two-year emergency assistance. Moreover, the detailed project design did not make any provision how the project would achieve this objective.

Project Components

2.2 Quick-disbursing assistance to finance imports (US\$35.0 million, or 70 percent of total project cost). The positive list of goods imported by private and public sectors included: (i) machinery, well rigs, and equipment for the meteorology department and DMMU's Emergency Operations Center; (ii) agricultural inputs and petroleum products; (iii) construction materials; (iv) transport vehicles, motorcycles, bicycles; (v) livestock and animal health products and veterinary supplies and equipment; and (vi) school and medical supplies and equipment.

2.3 Social safety net (public works) (US\$7.0 million, or 14 percent of total project cost). This component included a conditional cash transfer for vulnerable groups with a view to improving access to villages by rehabilitating existing feeder roads. The road works are similar to the program under the Road Rehabilitation and Maintenance Project (RRMP). The Public Works component received co-financing worth US\$3.38 million from the Norwegian Agency for International Development (NORAD) under a Trust Fund executed by the Borrower.

2.4 Agricultural rehabilitation (US\$7.0 million, or 14 percent of total project cost). This component consisted of (i) an agricultural input package (FSP) delivered to vulnerable but viable farmers, in exchange for repaying 10 percent of their produce toward a community owned grain bank, and; (ii) provision of vaccines to the animal disease control program.

2.5 Improving early warning system and disaster management and mitigation capacity (US\$1.0 million, or 2 percent of total project cost). This component aimed at improving the early warning system and enhancing government capacity to manage and mitigate disasters through technical assistance, equipment, training, and studies.

2.6 The project also planned to mobilize additional resources from ongoing IDA-assisted operations. Toward this end, it identified a total of US\$21 million which would be used to finance emergency related activities in the 38 drought affected districts.

Retroactive Financing

2.7 In order to jump start the project, US \$10 million was agreed for retroactive financing to reimburse eligible imports completed four months prior to Credit and Grant signing.

3. Implementation

3.1 In May 2002, the GOZ declared the food crisis as a national disaster and issued an international appeal for assistance. In August 2002, the GOZ submitted a request to the Bank to assist in alleviating the impact of the food crisis. In response to the Bank's positive

reaction, in October 2002, the GOM presented a “Government Drought Management and Mitigation Plan: Policy, Strategy and Interventions”. A Task Team was quickly formed and a Preparation cum Appraisal Mission was launched to prepare a hybrid operation. The US\$50 million equivalent Credit/Grant was subsequently approved on November 19, 2002. The Credit was signed on December 19, 2002 and declared effective on February 28, 2003.

3.2 The DMMU, as the lead project coordinating agency, needed to establish in-house capacity to manage the project. Such capacity would also serve its long-term requirements in managing drought mitigation and recovery operations. As a result, Credit effectiveness was subject to a number of standard requirements for establishing a project coordinating unit, systems and procedures. These conditions were fulfilled on February 28, 2003, three months after Board approval. Due to lack of experience with Bank procedures in DMMU, disbursement of US\$ 10 million under the Retroactive Financing was not made until October 2003.

3.3 The implementation arrangement for the project was cumbersome which involved several ministries, agencies, local government administrations and NGOs. Overseeing the project implementation was the Joint Steering Committee (JSC), chaired by the Permanent Secretary in the Office of the Vice President. The DMMU served as the Secretariat. The choice of the DMMU to coordinate the implementation of the project was appropriate since it was established as the Government’s focal point for disaster management. However, the long-term solutions to address the recurrent food shortages in Zambia require long term commitments from sectoral ministries. DMMU is emerging as a champion for disaster mitigation and management and draws the attention of sectoral ministries to Zambia’s vulnerability to natural disaster risks.

3.4 The Bank of Zambia (BOZ) and the private sector importers’ commercial banks played a leading role in facilitating access to foreign exchange under the Quick Disbursing Component. Private sector importers purchased foreign exchange from the BOZ absorbing 58 percent of the credit and grant proceeds. Public sector imports were limited to drilling rigs and animal vaccines. The Quick Disbursing component was essentially a Balance of Payment Support based on a positive list of imports and the performance indicator was only the utilization of the allocated amount. Under the project, an arrangement was not made on the use of the local currency proceeds from the sale of foreign exchange to private sector importers. The agreed disbursement procedure was also simple. Despite being a quick disbursing facility, the pace of disbursement was slow. In the positive list, three new groundwater drilling rigs and spare parts for 13 existing rigs were procured to reinforce the capacity of the Department of Water Affairs. The procurement process was lengthy, required re-bidding, and took more than one year. The selection of villages was based on community surveys, establishment of water and sanitation committees and training of key members in pump operation and minor maintenance, and community contributions in kind (serving lunches to contractors installing the pump and crushing stones). Political interference in the selection of villages and pump sites was reported during implementation.

3.5 A Program Steering Committee (NSC), chaired by the DMMU was established to implement the **Safety Net Component**. Due to the predominance of road works under the project, the National Roads Board (NRB) was responsible for implementing the public works

through the Ministry of Local Government and Housing, and District Councils. It also served as the Secretariat. Six Consultants and one NGO (Program for Urban Self-Help) were recruited through a competitive bidding process to represent the NRB in the Districts and guide the implementation of the public works. Consultants and the selected NGOs were assigned to different districts to work with the District Governments to mobilize workers at the community level and to ensure that the road works met the NRB technical standards.

3.6 In preparing the community based works, the project had established a set of project selection criteria, e.g. (i) labor cost would constitute a minimum of 60 percent of the total subproject; (ii) women would comprise 60 percent of the work force; and (iii) the participants would be paid ZK5000 per day working for a maximum of 4 hours per day. The consultants and the NGO paid careful attention to these and other criteria and the PPAR mission visited areas where women's participation was as high as 55 percent. The PPAR mission also confirmed the findings of the Subproject's Technical Assessment Consultants who noted that the social mobilization and adherence to the established criteria was much higher in areas served by the NGO than by the consultants.

3.7 The implementation arrangements with multiple layers created a lengthy procedure both for approval of works and release of payments. The component was plagued with long delays in the flow of funds from the center to the Districts and final payments to the project participants. Upon submission of the project for final approval, the contractors and the NGO were expected to receive 20 percent of the contract value as advance payment. However such payment was delayed considerably or not made. Payment requests, approved by the District Councils are submitted to the Ministry of Local Government and Housing for approval and transmittal to the DMMU through NRB, who authorized payments. In the villages visited, the PPAR mission was informed that the contractors and the NGOs had to use their own resources to pay overdue wages to participating workers. Delays of two months were common from the time the consultants or the NGO submitted requests for payments. The lengthy clearance and approval process penalized the road work participants who needed the income to overcome the food crisis.

3.8 The Ministry of Community Development and Social Services (MCDSS), MACO and DDMU were responsible for the *Agricultural Rehabilitation Component*. Three local NGOs-- Programme Against Malnutrition (PAM), Cooperative League of USA (CLUSA) and Adventist Relief Agency (ADRA) -- were selected through a competitive bidding process and were given a two-year contract to implement the component in three Agro-Ecological zones. PAM had an ongoing contract with the MCDSS implementing the national FSP program. The EDRP Agricultural Rehabilitation Component was modeled after the FSP and was designed to promote household food security for about 240,000 smallholders by supplying a package of high value inputs—seeds, fertilizers and lime---and introducing conservation farming techniques such as planting methods, minimum tillage, water conservation technologies, etc. A National Food Security Pack Committee was responsible for guiding the implementation and similar Committees were established at Provincial and District levels. With inputs from Vulnerability Assessments, the District Committees identified the most food insecure villages and through community consultations the participating households were selected. To sustain the program, the NGOs required the participating farmers to establish 'Grain Banks' and deposit 10-20 percent of their produce as

an in-kind repayment. Participating farmers established “Depot Committees” to oversee the distribution of FSPs and recoveries at harvest. Due to the long selection process, the NGOs started the program late and coupled with the rising cost of fertilizer and transport, the program did not reach the planned number of farm households. The bulk of the project funds were used to procure the inputs and the DMMU made the payments to the selected suppliers.

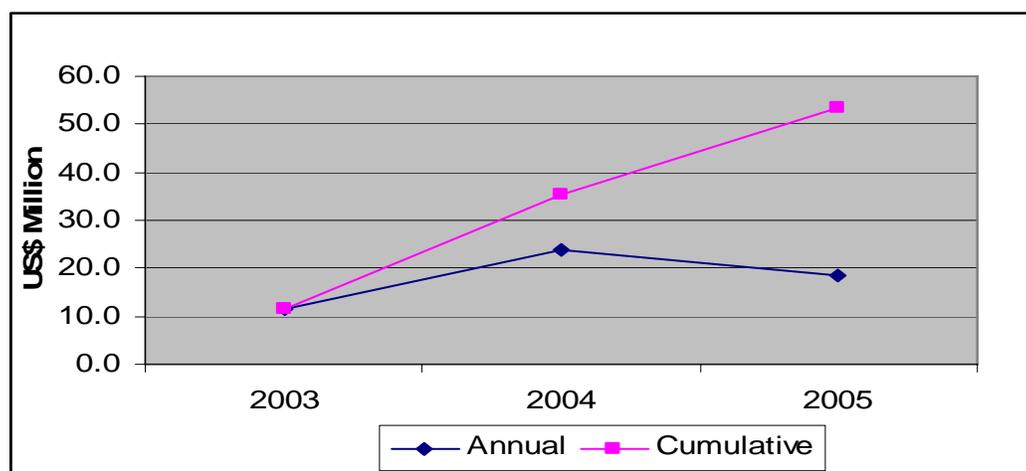
3.9 To enhance the Government’s capacity in *early warning system and disaster management and mitigation capacity*, the DMMU, the Meteorological Department in the Ministry of Communications and Transport and the Early Warning Unit in MACO were the objects of the technical assistance. Consultants were hired to provide the technical assistance and the DMMU coordinated the procurement of equipment for the three agencies.

3.10 The estimated and actual Project Costs and Financing Sources are presented in Table 3. In September 2004, the NORAD Trust Fund was declared effective and augmented the resources for the Safety Net Component. The higher actual Project Cost is explained by the additional resources from NORAD and the appreciation of the SDR during the life of the Project. The NORAD contribution was not known at the time of appraisal. The final NORAD disbursement was \$2.91 million out of \$3.4 million and was used mainly for the Social Safety Net and TA components.

Table 3. Project Cost and Financing by Component (US\$ mill)

Project Components	IDA/NORAD		GO Zambia		Total Project Cost	
	Appraisal	Actual	Appraisal	Actual	Appraisal	Actual
Quick Disbursing-Imports	35.0	30.75	0.0	0.0	35.0	30.75
Social Safety Net	7.0	10.6	0.30	0.30	7.30	10.90
Agricultural Inputs	7.0	13.16	0.16	0.16	7.16	13.32
Technical Assistance	1.00	2.04	0.02	0.02	1.02	2.06
Grand Total	50.0	56.55	0.48	0.48	50.48	57.03

3.11 The release of Government counterpart contribution was made on time. However, credit disbursement was generally slow for a project with 70 per cent of the total credit allocated to a quick disbursing category based on submission of documents for eligible imports. By October 2003, nearly eight months after effectiveness, the cumulative disbursement was only US\$11.9 million of which 80 per cent was made under the retroactive financing facility (Fig. 3).

Figure 3. Annual and Cumulative Disbursement

3.12 Delays in the processing of supporting documents and of withdrawal applications to IDA partly explain the slow disbursement. The Government had to seek a six-month extension of the Credit Closing date to June 30, 2005, to complete the remaining procurements and works.

4. Outputs and Outcomes

4.1 The Key Performance Indicators presented in the project documents are output indicators (in value and physical quantity) and the number of target beneficiaries. Table 4 presents the project targets and the actual achievements. While the project was largely implemented as designed, a few planned subprojects, notably the installation of 12 Bailey Bridges and the sinking of water supply boreholes, were not completed. At the time of Credit Closing, the Task Team had proposed to the Government to include the remaining works under a proposed Bridge Rehabilitation Project which was under preparation.

Table 4. Project Targets and Actual

<i>Sub-projects</i>	<i>Target</i>	<i>Actual</i>	<i>Actual (%)</i>
Imports under positive list (US\$mill)	35.0	30.75	88
Construct new Water Boreholes (nos)	250	45	18
Rehab. old Borholes (nos)	460	188	41
Feeder Road Maintenance (km)	1,200	2,880	240
Employment Created-Road- (no.)	160,000	151,700	95
Farmers Participating (no)	240,000	192,000	80
Animal Disease Control – outbreaks reduced (per cent)	25-80	21-80	85-100
DMMU Capacity Strengthening	TA	Completed	100
DMMU-Impact Evaluation	TA	Completed	100
Meteorological Department	Equipment/TA	Completed	100

Source: EDRP Technical Annex, ICR and GOZ. The animal disease indicators are mission estimates.

4.2 ***Agricultural inputs and other imports supported Government's emergency assistance:*** The Government's drought relief and recovery program mobilized both humanitarian and recovery assistance from UN agencies, bilateral and the Bank. The private

sector also actively participated in food and fertilizer imports. The total actual import value was 88 percent of the original allocation. During the mid-term review, reallocations were made which allowed an increase for the other categories notably for the agricultural component. Imports of petroleum which accounted for 54 per cent of the total quick disbursing allocation helped transport relief food to remote areas. Bank financed agricultural inputs, particularly fertilizers (9 per cent), augmented local supplies. Quantity breakdown of imported goods by commodity was not kept in the project files. Since the component was treated as a Balance of Payments support, with a couple of exceptions, the project document did not specify quantitative targets except a positive list of imports and an allocation of credit proceeds.

4.3 With the newly procured and rehabilitated water drilling rigs, the Department of Water Affairs took the lead in sinking new and rehabilitating existing boreholes in 21 Districts. At the time the Credit was Closed, the rehabilitation of the existing rigs was not fully completed and the sinking of the planned boreholes were only partially completed (Table 4). During the PPAR mission, the Department of Water Affairs indicated that the remaining boreholes would be completed in December 2006. In villages where water pumps were installed, the users informed the PPAR mission that in addition to receiving drinking water for themselves and livestock, they have started vegetable gardens and experienced a lower incidence of illness from water born diseases.

4.4 ***Wage payments, and assets created and rehabilitated have boosted household incomes and improved livelihoods:*** Two types of public works were undertaken: (i) feeder road repair, improvement and maintenance; and (ii) other civil works, including improvement of shallow drinking water wells, construction of VIP latrines, and repair/reconstruction of dipping tanks. The works were constructed in areas severely affected by drought and included priority works as identified by the communities. A key objective of the Safety Net component was to quickly generate income for the drought affected populations while creating and rehabilitating assets. The project has improved feeder road rehabilitation works measuring 2880 km.—exceeding the appraisal estimate by 140 percent. This was made possible by nearly doubling the allocation in response to an overwhelming demand for income-generating activities and funding from NORAD. The PPAR mission visited communities where road improvements were made and noted the externalities that arose from easy access to the villages. The villagers pointed out the opening of markets for agricultural inputs and outputs, and consumer goods. Access to health and education services has been facilitated by the road improvements. Women have maintained their groups that were established during the road works and have started other activities including pre-school for their children and income-generating schemes using the skills they have gained under the project.

4.5 In response to the Government's proposed drought response plan, the IDA Team's recommendation was a three-pronged intervention including the emergency operation. A joint IDA/GOZ Team identified several ongoing IDA assisted projects from which undisbursed credit balances could be earmarked for the drought affected districts. An agreement was reached with GOZ at appraisal to reallocate resources amounting to \$21 million to finance activities in the drought affected districts. This agreement was not included in the DCA but was recorded in the project documents (MOP and Technical

Annex). However, ZAMSIF is the only agency that has supported the EDRP with public works amounting to US\$ 0.8 million.

4.6 A key issue in the implementation of public works component was the inordinate delay in making payments to the contractors who were also constrained to make timely wage payments to the project participants. According to the evaluation of the public works component, 98 per cent of the actual payments were delayed by more than two months.⁴ This was a major shortcoming for such an important intervention. The implication of delayed wage payments meant that the participating workers had to enter into debt to meet their basic necessities—mainly food. Many had to withdraw their children from school for lack of food and failure to pay school fees.

4.7 The project had also made provision for bridge improvements and planned the installation of 12 Bailey bridges. The Bailey bridges were procured earlier under a bilateral assistance project and were awaiting installation. Although civil contracts were signed and initial payments made under the EDRP, all the Bailey bridges were not installed at the time of Credit Closing and the PPAR mission. The DMMU handed the bridges to the Roads Development Agency to complete under their regular budget.

4.8 **The provision of agricultural inputs and advisory services increased agricultural production, and the supply of vaccines averted the spread of animal diseases.** The three selected NGOs operated in 38 drought affected Districts. PAM was assigned to 20 Districts because of its presence under the on-going FSP program of the GOZ. ADRA and CLUSA shared the remaining target districts. The project promoted household food security measures through the introduction of: (i) conservation farming; (ii) crop diversification; (iii) cultivation of wetlands (the west banks of the Zambezi River); and (iv) food processing and nutrition education. The Project had planned to reach a total of 120,000 households per year. However due to delays in the start-up of the project and increases in the costs of inputs, only 114,000 households participated in the first year (2003/04) and only 74,000 farm families participated in the second year, bringing the total participation rate to 80 percent of the target.

4.9 In 2003/04, the first year of the project, total maize production in Zambia remained at the same level as in 2002/03, but declined by 28 percent in 2004/05 due to the partial dry spell conditions. However, project participating farmers have achieved notable results. Due to higher input and transport costs, only 80 per cent of the target beneficiaries were covered under the project. Notwithstanding the reduced number of beneficiaries, the project introduced improved farming methods—minimum tillage by making basins using hoes and ripping using animal draft power—distributed fertilizers, seeds and lime. On average 35 percent of project participants in the Districts covered by PAM, adopted conservation farming practices. As a result, in the 2004/2005 crop season when rainfall was below the long-run average and when dry spell conditions prevailed in some parts of the country, farmers who had continued the conservation farming suffered much lower crop losses than farmers applying traditional farming practices. According to CLUSA, farmers who have adopted conservation farming and applied the recommended inputs had a 25 percent higher

4. Disaster Management Unit, 'Draft Technical Assessment Report', June 2005.

yield than the control group farmers. Moreover, 95 percent of project farmers also started crop diversification, particularly into cassava plantings. The project also boosted crop production in wet lands as a critical food supplement during the peak hungry Season (December-February). The marginal production from wetlands bridges the food gap when crop prices are high. Farmers have also benefited from food processing and nutrition training programs. Zambia, like its neighbors relies primarily on maize meal as the principal food staple. To diversify food consumption and improve household food security status, the Government is promoting the planting of cassava and other high value food crops. Toward this end, the project has also made some contribution in providing cassava cuttings and in training households in food storage and processing. Cassava is viewed as a food security crop with longer storage life and is less susceptible to dry spells.

4.10 A commendable feature of the subproject is the establishment of the Grain Banks to recover in-kind repayments to sustain the program. At the end of the Project, a number of Farmer Groups that were established to operate the Grain Banks were still functioning and were registered as cooperatives to enter into other farm related activities and operate Bank accounts. Recovery rates from participating farmers in the FSP project Districts were 70-80 percent in 2003/04 and 60-70 percent in 2004/05. The recovery decline in 2004/05 is attributed to the poor harvests due to drought conditions in the latter part of the growing season. In 2004/2005, maize production in Zambia declined by more than 30 percent.

4.11 The animal disease control sub-component provided vaccination against various recurring diseases in Zambia and the region in general. The spread of foot and mouth disease has eroded one of the principal livelihoods of poor households due to distress sales. In the Southern Province, as a result of the drought and major disease outbreaks, livestock population has declined by about 50 percent. A major campaign was launched to contain the spread of animal diseases across provinces. Vehicles were sprayed when entering disease free zones from other provinces in order to arrest the rapid expansion of diseases such as foot and mouth, anthrax, and other contagious diseases. The last vaccination dose was given after the credit was closed to complete the program. As a result the project has achieved an 85-100 percent reduction in animal disease outbreak.

4.12 ***The Technical Assistance has enhanced Zambia's emergency mitigation and management capacity and early warning system.*** The Project has successfully implemented the Technical Assistance component with significant results. In drought-prone countries, the lack of a reliable early warning system exacerbates the resulting food crisis. Consequently, possible emergency mitigation measures are not executed in a timely way and the focus turns to emergency relief and recovery assistance. The EDRP has enhanced the human resource capacities, upgraded the specialized equipments and expanded the geographic coverage of the DMMU, MACO's Early Warning System Unit, and the Department of Meteorology. Consultants assisted the DMMU in preparing the National Disaster Management Policy and Disaster Management Operations Manual. These two key documents were completed in August 2005 and subsequently approved by the Government. The approval confirms the DMMU as Zambia's lead coordinating agency for disaster management and mitigation and defined the roles of Government Ministries and agencies, collaboration with NGOs and development partners. The Vice President of Zambia is the Chair of the National Disaster Management Committee. Other inter-ministerial technical committees and similar

committees at provincial levels have also been established. The DMMU acts as the Secretariat for the National Disaster Mitigation Committee. To further strengthen its capacity as Zambia's focal point for national disasters, the Project also financed an Emergency Operations Center in DMMU where country-wide data is gathered and processed for dissemination. When the newly established Emergency Operation Center in the DMMU is fully operational, it will provide valuable timely data on unfolding emergencies.

4.13 The provision of selected equipment to 18 weather stations of the Department of Meteorology and staff training has boosted the Department's rainfall forecasting and reporting capacity significantly. Notable results attributed to EDRP include: (i) timely receipt of weather data from the regional stations; (ii) reporting stations increased from 17 to 24; (iii) crop-weather bulletins are disseminated to the public and private sector mass media; and (iv) improved rainfall and temperature map are issued. MACO's Early Warning System Unit was established in 1986 and the project financed staff training and improved data processing equipment. The Unit is monitoring crop production of 8,000 farm households in 45 of Zambia's 72 Districts and issues pre-harvest and post harvest crop estimates. In collaboration with the Department of Meteorology, the Unit makes three crop forecasts annually and is used as a basis for taking mitigation measures against possible domestic production failures.

5. Ratings

5.1 The project's overall *Outcome* is rated **moderately satisfactory** reflecting modest ratings for relevance and efficacy with respect to one of the two development objective—to alleviate the impact of the drought. Project appraisal targets have not been met even after a six-month extension of the Credit Closing date was granted. The substantial increase in road works compared to appraisal targets is explained by the additional funds provided by NORAD a year after the project started. Table 5 Summarizes the Outcome ratings.

Table 5. Summary of Outcome Ratings

Development Objectives	Relevance	Efficacy	Efficiency
Alleviate the impact of the drought	Modest	Modest	Not Rated
Strengthen Borrower capacity to develop, implement and manage medium and long term drought mitigation measures	Substantial	Substantial	Not Rated
Overall Project Outcome: Moderately Satisfactory			

5.2 **Relevance of the project objectives and design:** Overall, relevance is rated **modest**. The objectives of the project were relevant to the current CAS (2004-2007) which was aimed at achieving: (i) sustained economic growth anchored in a diversified economy; (ii) improved lives and protection of the most vulnerable; and (iii) a well managed public sector. The

project's objectives were consistent with the CAS objectives. The provision of agricultural inputs and the attempts made to diversify crop production were interventions to improve household food security. The Bank is preparing a new CAS (2008-2011) which will be anchored in the new Fifth National Development Plan (2006-2010) and that may be a sequel to the first Poverty Reduction Strategy. The Fifth Plan recognizes Zambia's vulnerability to recurrent disasters and implications for the economy in general and the poor in particular. Such recognition of weather related risk should be explicitly noted in the Bank's assistance strategy. The Fifth Plan pays particular attention to the core agricultural production and productivity constraints. The Project objectives had also embraced Zambia's Poverty Reduction Strategy. During the past five years poverty incidence has declined marginally and the project's contribution to poverty reduction was equally modest. The project's objective of strengthening the Borrower's drought management and mitigation capacity is in line with the CAS objective of improving the performance of the public sector.

5.3 Was the project design appropriate for the stated project development objectives? The project design has notable shortcomings. The delays in accessing the proceeds from the Quick Disbursing component and the payment of participants in the Safety Net component (para. 5.8) point to weaknesses in the relevance of project design. As stated in the ICR, "Speed in...implementation [of emergency operations] are critical elements of success. These lessons remain valid, but were generally not practice by EDRP." The foreign exchange shortage in 2002 and 2003 was used as a justification for a quick disbursing facility. It appears that the Government had access to other sources of foreign exchange. In July 2002, the Zambia Consultative Group Meeting pledged \$1.2 billion of Balance of Payments Support for the implementation of the PRSP. Moreover, the copper price was recovering fast. Zambia's average annual import bill for 2003-2005 was about US\$1.5 billion and the total quick disbursing component was planned for US\$35 million, representing a small fraction of the Zambia's import bill. After the mid-term review, about US\$5 million was reallocated to the other categories. During the same period, Zambia met and even exceeded the gross international reserve targets agreed with the IMF under the Poverty Reduction and Growth Facility. The slow pace of disbursement suggests that the foreign exchange pressure may have been minimal.

5.4 Under the Quick Disbursing component, 42 per cent of the total allocation was used for public sector imports. One of the major public sector import packages was for the procurement of new rigs for the Department of Water Affairs. The Assessment questions the justification for supplying a public sector agency with capital goods rendering unfair advantage to compete with private sector service providers. Private sector drillers are available in Zambia and should not be crowded out by public sector agencies. The Department has a much broader national policy making responsibility in the water sector including the development of the National Irrigation Policy and Plan and could have contracted private sector drilling companies to sink boreholes and install the pumps. Outsourcing to private sector drilling companies would have been a boost to the local capacity and timely completion of the planned water pumps.

5.5 The institutional arrangement for implementing the Safety Net component proved cumbersome and caused delayed payments to project participants. The rationale for GOZ/Bank project preparation team to select the National Road Board (NRB) was the

NRB's involvement in road projects. Together with NRB, the Ministry of Local Government and Housing was also involved in the implementation of the road works. The various layers lengthened the review and approval process and the DMMU was not replenishing the Special Account regularly and had to ration the available balances in the Special Account between competing components. The Assessment also questions as to why the Zambia Social Investment Fund was not selected to take the lead in implementing the Safety Net given its long term involvement in implementing public works type projects with experience in mobilizing communities. During a meeting with ZAMSIF, the management informed the PPAR mission that despite the slight change in introducing wage payments to project participants under the emergency operation, ZAMSIF could have integrated the component in its work program. The choice of ZAMSIF could have also expedited the timely payment of wages.⁵ The relevance of the project design is therefore rated modest.

5.6 Efficacy of Project Objectives is rated modest. The Assessment is based on the achievement of the two project objectives. First, to what extent did the project alleviate the impact of the drought? In 2003 and 2004, the project has provided high priority imported inputs amounting to \$30 million. Although the end use of such imports except for the water drilling rigs and animal vaccines were not monitored, imported fuel, fertilizers and equipment augmented the supply in the domestic markets. The amount is small compared to Zambia's two-year import bill. Participants in the Safety Net and agricultural rehabilitation components have increased their incomes and rehabilitated community assets, allowing them to meet their basic needs. The 2001/2002 food crisis had affected an estimated 2.9 million people in 38 Districts of which the Project has assisted about 0.350 million. Though modest in coverage, the project, in its two and half year duration, has provided limited livelihoods to project participants. The improved roads have eased access to remote villages facilitating market promotion and delivery of social services. Notwithstanding the delayed wage payments, which impacts the efficacy rating, incomes from the public works and farm production raised household food consumption and temporarily covered other basic needs. Nearly 152,000 rural people benefited from wage employment under the public works component. The average monthly household income before the project was estimated at about K40, 000. With the project, monthly wage earnings jumped to K150, 000. However, the length of employment varied from 2-12 months and sixty-six percent were employed for less than 2 months. The introduction of conservation farming and Grain Banks has enhanced the farmers' capacity to reduce the impact of future shocks. Without the project, the project beneficiaries would have competed for minimum food aid hand outs.

5.7 Despite the success in the implementation of the public works and the agriculture components, two major factors argue for a modest rating of the project's achievement of alleviating the impact of the drought. First, the delayed start-up coupled with the inappropriate timing the public works (at the beginning of the crop season) and payment delays exceeding 60 days make the project ineffective as an emergency operation aimed at restoring household income. The DMMU's Assessment report confirmed that households entered into debt waiting for payments. There were also instances when contractors abandoned their sites due to lack of working capital because of payment delays. Second, the

5. In the Malawi EDRP, the Malawi Social Action Fund was selected to implement similar conditional cash transfers for public works.

inordinate delay in accessing the proceeds for the balance of payments support equally defeated the rationale for a quick disbursing component. To make up for these delays the project's closing date was extended by six months. Due to these shortcomings, the efficacy of the first objective is rated **modest**.

5.8 Second, what were the project's achievements in strengthening the Borrower's capacity to develop, implement and manage medium and long term drought mitigation measures? The Project has successfully strengthened the capacities of three key Government agencies—the DMMU, the Department of Meteorology and the Early Warning Unit of MACO as described in paras.4.12 and 4.13. In 2004/05 maize production declined by 28 percent. However, due to Zambia's strong economic performance, rising export earnings, and the timely warning of the impending food shortage, Zambia was able to weather the production shortfall by timely imports and overall improved emergency response. The joint early warning collaboration of the DMMU, the Department of Meteorology, the Central Statistical Office and MACO's Early Warning System Unit (acting as the Secretariat for the four agencies) is exemplary. The efficacy of the project's overall institutional objective is rated **substantial**.

5.9 As an emergency operation, the Project was not tested against the standard project *efficiency* criteria. The one component that was amenable to a standard rate of return analysis since the benefits and costs are quantifiable was the Agricultural Rehabilitation component. Based on the assessment reports of the Food Security Packs, the financial rates of return appear viable. The operating cost for the Safety Net component is about 15 per cent which is within the acceptable range of similar public works projects. For lack of quantitative measures, the overall **efficiency** is not rated.

5.10 The *Risks to Development Outcomes* is a function of the design of the project and the identification of planned long term interventions following the completion of the project. The project has a dual feature of short and long term interventions. The bulk of the project was aimed at Balance of Payments support and the imported items were inputs that were applied to farmlands and capital goods that would continue to create new assets. In view of Zambia's improved foreign exchange position due to higher copper prices and the push for export diversification, priority imports financed under the project would likely continue and help increase agricultural production. What about the continued benefits from the improved feeder roads and the water supply systems financed under the project? In the areas the PPAR mission visited, two years after the road works were completed, they appeared well maintained. The communities feel that the road belongs to them and the Districts have taken the lead to organize them to help maintain the road works. The Districts have made arrangements to provide simple tools and hire machinery as needed to the communities. The water supply points are the responsibility of households within the catchment area. Informal village operation and maintenance groups are formed to look after the water pumps. Funds are raised from the users to repair the pumps.

5.11 The continued availability of the Food Security Pack and the accompanying advisory services is highly questionable. To sustain the adoption of the new agricultural practices and use of productivity-enhancing inputs would require the inclusion of the project farmers under the Government's Food Security Pack program and Fertilizer Support Program. This is an

unlikely scenario since the FSP has drastically reduced its national program and the Fertilizer Support Program hardly reaches 10 per cent of the target population. However, the new Fifth National Development Plan has laid out a formidable long-term agricultural and food security strategy that will address the core sectoral issues. Coupled with the implementation of the National Irrigation Plan, and the successful implementation of the Government's smallholder productivity enhancement program, Zambia has the potential to develop competitive agriculture and attain national and household food security. Given Zambia's past track record the realization of the development plans faces substantial risk.

5.12 The institutional capacity strengthening is the most successful project activity and the outcome is sustainable. The DMMU, MACO's Early Warning System Unit, and the Department of Meteorology have effectively utilized the project's technical assistance and supply of equipment which enhanced their performance significantly. Based on the risk assessments of the project outcomes, the overall **Risk to Development Outcomes is rated significant.**

5.13 ***The Bank's Performance*** in assisting the Government in the design of the project and bringing to bear the Bank's international experience in emergency operations was commendable. The Region organized a Task Force to assist the Task Team in the design of the project and drew lessons from other Bank-assisted operations but fell short in applying the lessons learned. The speed at which the Bank responded to the Government request was appreciated. In preparing the project, the Bank Team went into great depth to review the Bank-assisted portfolio in Zambia and identified a series of activities that would supplement the EDRP under ongoing operations. The Bank Team and the Government had agreed to use about \$21 million of project financing in the 38 drought-affected Districts. This agreement was not formally made through amendments of the projects' DCAs but was recorded only in the EDRP Project documents (MOP and Technical Annex). The use of these resources would have increased total EDRP expenditure by about 40 percent. **The Bank's performance for Quality at Entry is rated moderately satisfactory due to the design weaknesses described in paras. 5.2-5.5.**

5.14 **The Bank's performance in supervising the project and providing timely and effective assistance to the Implementing Agencies is also rated moderately satisfactory.** There were four Task Team Leaders (TTLs) for a Project that lasted less than two and half years including the Task Team Leader during preparation through Board Presentation. The high turnover of TTLs is reflected in the varying quality and the repetitiveness of the Supervision Reports, and the heavier focus on process than on reporting on results. A total of 81 staff weeks (32 staff weeks per year) was used to supervise the project which is double the average supervision coefficient⁶. Task management was also transferred to the Country Office in August 2004. Bank clearance and approval of procurement actions took inordinately longer than warranted since all such actions were taken in Washington. Bank supervision missions also overlooked to review the agreement reached with the Government on the use of the proceeds from ongoing Bank-assisted projects in the EDRP target Districts. Having prepared detailed descriptions of the activities to be financed, the idea was never pursued during the life of the Project. Neither the Bank nor the Borrower made any attempt

6. The current average supervision coefficient for Bank-assisted projects is about 15 staff weeks per year.

to follow-up with the target project authorities. The PPAR mission was able to obtain data from ZAMSIF showing public works worth US\$0.8 million was implemented in parallel seven project districts. **The Bank's overall performance is rated moderately satisfactory.**

5.15 The Borrower's Performance for Quality at entry is **satisfactory**. The Government's "Drought Management and Mitigation Plan: Policy, Strategy and Intervention" is a well thought out document which outlined the Government's: (i) immediate and short-term measures to save lives and assets; (ii) medium-term measures to target the poor to recover their production capacity; and (iii) long-term to enhance planning and management capacity to address future natural disasters.

5.16 The performance of the Implementing Agencies is rated **moderately satisfactory**. The rating is partly due to the cumbersome institutional arrangements established for the implementation of the project. Multiple layers of agencies slowed down decision making, and created lengthy clearance and approval process. As a result of delayed payments, a few contractors had to abandon their work and the project participants had to enter into debt. Lack of experience with the Bank's procurement procedure and the absence of a Bank procurement Specialist in the Country Office delayed the recruitment of Consultants and procurement of water drilling rigs. By the time the Credit was closed, and after a six-month extension, nearly 80 percent of new and 59 per cent of old boreholes were not completed.

5.17 To assist in the management of the food crisis, the Government allowed selected private sector importers to supply imported food and to sell at subsidized prices. The introduction of subsidized maize may have created market distortions and discouraged other potential maize importers since the subsidy was exclusively to a few selected grain traders. The Government's rationale was to make food affordable to the severely drought stricken areas but the targeting may have suffered from both inclusion and exclusion errors. The overall Borrower's Performance is therefore rated **moderately satisfactory**.

5.18 As part of the capacity strengthening of the DMMU, a consultant designed an appropriate Information System and a Monitoring and Evaluation System. These systems were intended to serve not only the EDRP but DMMU's national mandate as a lead agency for disaster mitigation and management. Due to lack of staff, the systems are not operational. However, project monitoring and evaluation was regular especially for the Safety Net and Agricultural Rehabilitation Components. The PPAR mission has reviewed the Evaluation Reports and found them of variable quality ranging from in-depth assessment of the project outputs and outcomes to simple reporting of outputs. As a Senior Official of the DMMU observed, the design and full implementation of the systems is 'a journey and we are on track but may be moving slowly'. The DMMU is well placed to utilize these tools in the implementation of the National Disaster Management Policy and the Disaster Management Operations Manual. To complement the DMMU's monitoring of food crisis, Zambia has in place an elaborate and credible Vulnerability Assessment Monitoring System (VAMS). The System identifies the food insecure areas and households based on nation-wide field surveys. The results are used for planning emergency assistance by the DMMU and food aid providers. A missing link in the system is evaluation of disaster mitigation interventions. The DMMU has yet to establish an evaluation capacity or outsource the task until its in-house

capacity is fully operational. **The monitoring and evaluation system is rated as modest for implementation and utilization.**

6. Lessons

6.1 Zambia has the abundant water and land resources to avert food crisis. In recent years, the economy has been growing at a respectable rate due to recovery in copper prices and most importantly improved macro-economic stability and better government expenditure control. In 2005, Zambia was also rewarded substantial debt relief which is allowing the economy to pursue its challenging but achievable higher growth path and poverty reduction. The recently approved Fifth National Development Plan has acknowledged Zambia's past shortfalls between plans and actions and has articulated Zambia's renewed commitment to tackle the development challenges facing Zambia. It has also demonstrated its commitment to the democratization process by allowing its citizens exercise their voting power. External shocks and natural disasters will remain as substantial and recurrent risks.

6.2 Disasters, notably floods and droughts are recurrent episodes in Zambia. Heavy rains in early 2007 are damaging properties, agricultural and rural infrastructure and maturing crops. This is the third natural disaster pounding Zambia since the 2001/2002 food crisis. The GOZ, despite the substantial damages and losses of assets and rural household income, has decided not to declare an emergency. This is indicative of Zambia's growing capacity to manage emergencies for which the EDRP has made notable contributions. It is also a tribute to the effectiveness of the various national, provincial and district disaster management and mitigation committees and offices. Several valuable lessons, relevant to both the Government and the Bank emerge from the design and implementation of the EDRP.

- ***Bank assistance should pay particular attention to food security issues in countries with chronic food insecurity and vulnerability to natural disasters:*** Zambia is vulnerable to recurrent natural disasters that exacerbate household food insecurity and trigger macroeconomic imbalances. Notwithstanding the importance of a favorable rainfall distribution during the crop growing season, rainfall is only one factor in determining agricultural productivity. The Government's Fifth National Development Plan accords high priority to food security. To achieve this objective, Zambia, with the support from the Bank and other Development Partners, needs to invest heavily in productivity-enhancing technologies, irrigation infrastructure, and rural roads, and allow a level playing field for both public and private sector service providers. Zambia has the potential not only to feed itself but also to become a granary for its eight neighboring countries. The Bank's Country Assistance Strategy should also recognize natural disasters as risks to development outcomes.
- ***To address food insecurity a regional approach which promoted regional trade is needed.*** The Southern African states belong to SADC and share many common development challenges—food insecurity, HIV AND AIDS, weak governance, and recurrent natural disasters. In order to meet their individual food security objectives, the member states frequently impose trade barriers, despite their commitment to free

trade agreed under Common Market for East and Southern Africa (COMESA) frequently put trade barriers. However the porous borders especially between land-locked countries like Malawi, Zambia and Zimbabwe, benefit from informal cross-border trade especially in food. The NEPAD supported framework for promoting food security, one of the Pillars of the Comprehensive Africa Agricultural Development Program (CADAP) is a suitable forum to pursue such a regional approach to food security.

- ***It is essential to the success of a public works project to establish a priority objective of public works between quick income generation and creation and/or rehabilitation of assets with an acceptable technical standard. An appropriate timing of public works is also imperative to avert conflicting labor demand for agriculture.*** Public works often have the dual objective of creating, albeit temporary, income generating employment and the creation and/or rehabilitation of community assets. It is imperative to determine the relative priority assigned to the objective of income generation under an emergency situation when cash is urgently needed to compensate for losses due to the natural disaster and rehabilitating or creating community assets that meet national technical standards may be compromised. Often there are trade-offs and which should be acknowledged at the time of designing a public works-based recovery project. In the Zambia EDRP, there were cases when the road works were underway in the midst of the peak agricultural labor demand. Public works should also be timed appropriately to avoid possible diversion of family labor from the family farm. The India employment generating public works program is a model success story.
- ***Careful selection of institutional arrangements to implement emergency operations would allow a quick project start-up and minimize implementation risks:*** The multiple coordination and implementation committees established at the national, provincial and District levels appear to have slowed down timely project implementation. The various layers formed to implement the Safety Net component have caused the long delays in the payment of project participant. A key lesson emerging from the Zambia experience is that when there are well performing ongoing projects, the emergency operation should be designed with a view to providing additional resources to such operations to target drought affected Districts. In the case of Zambia, the choice of ZAMSIF instead of the National Road Board to implement the Safety Net component might have been more appropriate.

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Annex A. Basic Data Sheet

EMERGENCY DROUGHT RECOVERY PROJECT (CREDIT 3719-ZA)

Key Project Data *(amounts in US\$ million)*

	<i>Appraisal estimate</i>	<i>Actual or current estimate</i>	<i>Actual as % of appraisal estimate</i>
IDA Loan	50.0	53.64	107
Co financing	0.0	2.91	--
Government	0.48	0.48	100
Total project cost	50.48	57.03	113

Cumulative Estimated and Actual Disbursements *(US\$ million)*

	FY03	FY04	FY05
Appraisal estimate	11.1	32.38	50.0
Actual	11.5	35.3	53.64
Actual as % of estimate	103	109	107

Project Dates

	<i>Original</i>	<i>Actual</i>
Departure of Appraisal Mission		08/26/2002
Appraisal		11/04/2002
Board approval		11/19/2002
Effectiveness	02/28/2003	02/28/2003
Mid-Term Review		04/19/2004
Closing date	11/30/2004	06/30/2005

Staff Inputs *(staff weeks)*

	<i>Actual/Latest Estimate</i>	
	<i>N° Staff weeks</i>	<i>US\$US\$('000)</i>
Preparation/ Appraisal	35	140
Supervision	81	358
Completion	18	56
Total	134	554

Mission Data

	Date (month/year)	No. of persons	Specializations represented	Performance rating	
				Implementation status	Development objectives
Preparation/ Appraisal	09/23/2002	12	Task Team Leader, Senior Economist, Lead Procurement Specialist, Regional Advisor, Social Development Specialist, Economist, Agricultural Officer, Procurement Officer, Financial Management Specialist, Implementation Specialist – Consultant		
Supervision 1	06/18/2003	10	Task Team Leader, Agricultural Officer, Consultant – Implementation Specialist, Senior Transportation Specialist, Procurement Specialist, Senior Operations Analyst, M&E Specialist, Highway Engineer, Administrative and Client Support	S	S
Supervision 2	10/31/2003	8	Task Team Leader, M&E Specialist, Implementation Specialist, Financial Management Specialist, Agricultural Officer, Procurement Specialist, Lead Operations Officer, Administrative and Client Support	S	S
Supervision 3	04/20/2004	8	Task Team Leader, Senior Transport Specialist, Implementation Specialist, Lead Operations Officer, Financial Management Specialist, Procurement Specialist, Agricultural Officer	S	S
Supervision 4	12/17/2004	6	Task Team Leader, ARD Advisor, Implementation Specialist, Senior Transport Specialist, Financial Senior Management Specialist, Financial Management Specialist	S	S
Supervision 5	05/19/2005	5	Task Team Leader, Senior Financial Analyst, Financial Management Specialist, Transportation Specialist, Senior Highway Engineer	S	S
ICR	12/18/05	3	Task Team Leader, Agricultural Officer, Administrative and Client Support	S	S

Performance Rating: S: Satisfactory

Annex B: People and Agencies met

1. Principal Secretary, Office of the Vice President (OVP) of Zambia
2. Mr. D. Mulenga, National Coordinator, Disaster Mgm't. & Mitigation Unit, OVP
3. Ms. Y. Mwape, Head Research and Planning, DMMU. OVP
4. Mr. J. Shawa, Acting Director Planning, Ministry of Ag. and Coop
5. Dr. A. Mwananumo, Executive Director, Food Reserve Agency, GOZ,
6. Mr. M. Muchinda, Director, Meteorological Department.
7. Ms. Joyce Muskotwane, District Commissioner, Monze District
8. Mr. Raphael Mabenga, Rural Road Maintenance Programme, GOZ
9. Mr. Davies Zulu Rural Road Maintenance Programme, GOZ
10. Dr. Hyde Haanntuba, Coordinator, The Agricultural Consultative Forum
11. Mr. Alex Lusaka, Principal Water Engineer, Department of Water Affairs, GOZ
12. Mr. Mwabi, Director, Early Warning Unit, Ministry of Agriculture and Coop.
13. Mr. Gregory Mwanza, Chief Planner, Min. of Community Dev't. & Social Services
14. Ms. Chansa Mushingi, Representative, Famine Early Warning Systems Network
15. Mr. D. Stevenson, Country Director, WFP
16. Dr. Tesfaye Shiferaw, Head, Health and Nutrition, UNICEF
17. Mr. Eddie Delaunay, Food Security Section, E.U
18. Mr. Jan Erik Studrod, First Secretary, NORAD
19. Mr. Mususe, Regional Coordinator, PUSH, (NGO)
20. Mr. Paul Kapotwe, Acting Director, Program Against Malnutrition (NGO)
21. Mr. Mike Field, Chief of Party, Clusa (NGO)
22. Mr. C. Mambo, Zambia Social Investment Fund
23. Mr. Peter Cottan, Managing Director, National Milling Company
24. Mr. John Kunda, Adventist Dev. Relief Agency (NGO)
25. Ms. Karen Brooks, Sector Manager, Sustainable Development, Africa Region,
26. Mr. Ohene Nyanin, Country Manager WB
27. Mr. Alex Mwanakasale, TTL, EDRP, WB CO.
28. Dr. J. Goverah, Food Security Research Project
29. Mr. Frank Byamugisha, Operations Adviser, WB
30. Mr. Tekola Dejene, Lead Operations Officer, WB.
31. Mr. Tijan Sallah, Lead Operations Officer, WB.
32. Mr. Paavo Eliste, Economist, WB.
33. Ms. Mirey Ovadiya, Sr. Operations Officer, WB.