

Mozambique

1999-2000 Floods

Impact Evaluation: Resettlement Grant Activity

**Emergency Recovery: Agriculture and Commercial
Trade (ER: ACT)**

U.S. Agency for International Development (USAID)

**Abt Associates Inc.
(with Afrisurvey and Caresoft Lda.)**

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PREFACE

Mozambique has a population of 17.2 million people, and a land area of 789 800 square kilometers. Although 45 percent of the land is considered suitable for agriculture, only four percent is presently cultivated. Over 81 percent of the labor force is engaged in some type of agriculture production, which reflects limited employment opportunities in the non-farm sectors despite the growth of the manufacturing sector in the past decade. Historically, Mozambique has been a major producer of cash crops including sugar, copra, cotton, cashew nuts, tea and tobacco. These activities declined during more than 15 years of civil strife that devastated the country's economy, following independence in 1975 (FAO, 2000).

After a prolonged civil war, the peace accord signed in October 1992 and the first multiparty elections in 1994 led to the current period of relatively stable government and buoyant economy accompanied by increased growth.

Under agreements with the IMF and the World Bank, market-based economic policies, including far-reaching structural reforms, have been implemented. In addition, the country has benefited from a foreign investment boom. Inflation has declined from an average of 50 percent in 1991-95 to 2.9 percent in 1999. The value of exports has almost doubled from 1995 to 1999 reaching a level of US\$300 million. The exchange rate has stabilized over the same period. GDP growth has been particularly impressive, averaging 9.5 percent annually in 1996-1999 (EIU, 2001).

Despite these gains, the country remains one of the poorest in the world, with a GDP per head of US\$256 in 1999. In late 1999 and early 2000, economic progress was halted by disastrous flooding created by heavy rains and cyclones, hitting hardest the five most southern provinces. The immediate focus by governments was on saving lives. The Government of Mozambique mobilized rescue resources from its neighboring countries and international donors (including the US Office of Foreign Disaster Assistance).

Following this emergency response, the Government of Mozambique and many donors developed projects – some with objectives for short-term recovery and others for long-term sustainability – to assist the affected families living in the flood areas. The subject of this evaluation is USAID's post-emergency recovery project – a unique Resettlement Grant Activity, not designed as a traditional development project, but rather to directly assist flood-affected families in the recovery of their livelihoods.

This impact evaluation was carried out from November 2001 to May 2002 by a team contracted by USAID through the Agricultural Policy Development Project (APD) with Abt Associates Inc. The team included Afrisurvey (social science research firm), Caresoft Lda (database design and processing firm), Esther Kazilimani-Pale, and Liv Bjornestad. The entire team, including the 20 survey field supervisors and survey interviewers identified in Annex 3, is acknowledged and thanked, with particular gratitude directed to Ms. Ercilia Santos of Afrisurvey for her skill, dedication, and attention to detail.

The team benefited from the experience and insights of those involved in the implementation of the resettlement grant program, most particularly Mr. Carvalho Neves who led Deloitte and Touche's Project Management Unit.

We thank Ms. Christine de Voest, USAID/Mozambique Rural Enterprise Officer, for her guidance throughout, and Gale Rozell and Sarah Gavian for their constructive critiques of the draft report.

To those Mozambicans who suffered in the floods, we are pleased that the resettlement grants contributed in some small way to an improvement in their lives.

John Miller
Team Leader
July 2002

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ACRONYMS AND TERMS

BCI	Banco Comercial e de Investimento (Commercial and Investment Bank)
CTA	Confederação das Associações Económicas de Moçambique (Economic Associations of Mozambique)
DINAGECA	Direcção Nacional de Geografia e Cadastro (National Directorate of Geography and Mapping)
ER: ACT	Emergency Recovery: Agriculture and Commercial Trade Program
FDC	Fundação de Desenvolvimento da Comunidade (Foundation for Community Development)
GRM	Government of the Republic of Mozambique
MIC	Ministry of Industry and Commerce
MZM	Mozambican Meticals
NGOs	Non-Government Organizations
PC	Program Committee
PMU	Project Management Unit (Deloitte and Touche, contracted by USAID)
STAE	Secretariado Técnico de Administração Eleitoral (Technical Secretariat of Election Administration)
USAID	United States Agency for International Development
<i>lobolo</i>	dowry

Mozambique

Flood Affected Regions, Resettlement Grant Activity



ABSTRACT

In response to the 1999-2000 floods in Mozambique, USAID's Resettlement Grant Activity helped families return to their homes and farms and rebuild their lives, while at the same time, jump-starting economic activity, re-establishing effective demand and supply of goods and services.

Cash grants were distributed from December 2000 to April 2001 to more than 106,000 rural families. Each head of household received 1,500,000 meticaís, about US\$92. The distribution of US\$9.7 million was accomplished at 167 distribution sites that encompassed over 730 villages in 30 districts within the five affected provinces. Grants were delivered to the woman of the household. Families were able to choose for themselves which goods or services, or even savings were their highest priorities.

Grant recipients for the most part met criteria based on, among others, location and damage to homes and crops. Beneficiary identification involved a village by village registration process, collecting names, inventorying losses, and verifying information with village elders.

Grant recipients were poor, largely subsistence farmers, living in rural villages near their own fields. Many recipients live in areas often affected by extreme natural conditions. They suffered in the floods then, and are now suffering with drought.

Grants were primarily spent on household goods (e.g., dishes, pots, pans, blankets), clothes, and livestock. The money was spent mainly near local distribution points, and thus remained in the region, stimulating sales and job creation by retail traders.

Food prices increased substantially during and after the floods, but food inflation effects of the program were minor, given the tendency by households towards purchases other than food. The main cause of the marginal local inflation was the scarcity of products, highlighting the importance of accompanying such cash programs with complementary programs on the supply end.

The program contributed to the revitalization of distribution networks in affected areas. The extra income that trickled up to local retailers in the form of increased business allowed them to restock their stores and repair damages caused by the floods.

The fundamental principle of a cash grant program – that without any conditions attached, households would make prudent use of the money – was confirmed. The view that women manage the money and choose the family priorities was also borne out.

The program helped stabilize affected households by providing them with income lost during the floods and allowed homes to be re-established, essential needs to be met, and productive, income-generating activities to be re-started. Those most severely affected by the floods were assisted, and in the absence of the grant program, would have been worse off. At the same time, however, the program reinforced a sense of expectation by villagers that others may be depended upon for their survival.

CHAPTER 1 BACKGROUND AND INTRODUCTION

The Floods. The floods that occurred in Southern and Central Mozambique in late 1999 and early 2000 resulted in the displacement of 500,000 people, severely damaging housing, agricultural infrastructure, public buildings, schools, hospitals, water and energy supply systems, roads networks, railways and telecommunications. These losses represented an enormous setback for the Mozambican national economy and for the efforts achieved in the area of poverty reduction (World Bank, 2000).

According to initial post-flood assessments, the direct and indirect losses to Mozambique's economy amounted to a significant US\$600 million (more than double annual export earnings) including: losses of assets (direct costs), US\$273 million; reduced production (including the reduced stimulus to the economy), US\$247 million; reduced exports, US\$48 million; and increased imports for consumption, US\$31 million (World Bank, 2001). Later, the real cost of replacing infrastructure greatly exceeded the estimated losses.

“The magnitude of the disaster affected economic activity in such a profound way – with particular impact on agricultural and industrial production – and over such a large area, that the macroeconomic impacts in 2000 were enormous” (World Bank, 2000). The floods resulted in a sharp fall in GDP from 7.5 percent in 1999 to 1.6 percent in 2000, inflation reached a high of 12.7 percent in 2000 as compared with 2.9 percent in 1999, and the exchange rate depreciated sharply at an annualized rate of 28.2 percent in 2000 from a rate of 7.7 percent in 1999 (Mozambican State Budget, 2002).

The provinces most affected by the floods were Maputo, Gaza, Inhambane, Sofala and Manica. The total population in the five affected provinces is roughly five million people. According to the Instituto Nacional de Gestão de Calamidades (INGC), nearly two million people experienced economic losses. Breakdowns in the transportation system – resulting from destroyed roads, bridges and railways – separated people in the affected areas from food, water and essential services (World Bank, 2000).

Flood and cyclone damage affected substantial areas of agricultural production in southern and central Mozambique, resulting in crop and livestock losses and damage to agricultural infrastructure and equipment. World Bank estimates suggest that losses reached almost US\$58 million in the agricultural sector and US\$8 million in the livestock sector. Of this, 47 percent resulted from smallholder losses, mostly in annual crop and livestock losses. Livestock losses were estimated at 20,000 cattle, 4,000 goats, sheep and pigs, and 180,000 chickens. The cattle losses alone were feared to reverse the recovery of the pre-war herd. Smaller animals virtually disappeared in the flooded areas, removing a valued source of cash income, savings, and nutrition from the small farmer (World Bank, 2000).

The flooding devastated the affected areas (about 12 percent of the cultivated land and 90 percent of irrigated land in the five provinces) and caused considerable loss of life and property. The flooding covered planted areas, which mostly supported maize and rice. The largest impact was in Gaza (accounting for 43 percent of the flooded cultivated land), followed by Maputo (31 percent) and Sofala (18 percent). Assuming

constant yields across hectares, up to 21 percent of expected agricultural production in the affected area was lost (World Bank, 2000). As shown on Table 1-1, flood and cyclone damage affected substantial areas of smallholder agricultural production in the flood-affected region of Mozambique, resulting in crop and livestock losses and damage to agricultural infrastructure and equipment.

Table 1-1. Direct Loss in the Agriculture and Livestock Sectors (US\$ millions)

	Smallholder
Annual crops in cultivation	20.95
Livestock	7.90
Capital assets	3.06
<i>Productive infrastructure</i>	<i>2.17</i>
<i>Tools</i>	<i>0.89</i>
Total	31.91

Source: MADR and Agricultural Provincial Directorates (DPADRs).

The Resettlement Grant Activity. Given the magnitude of the damage in a country as poor as Mozambique, USAID wanted to maximize the impact of resources it sought from the US Congress. USAID designed the Emergency Recovery: Agriculture and Commercial Trade Program (ER: ACT) as one part of a larger reconstruction program effort. ER: ACT¹ sought to:

- help families devastated by the floods and cyclones return to their homes and farms and rebuild their lives, and
- jump-start economic activity to re-establish effective demand and supply of goods and services in affected areas.

Cash grants were provided directly to families whose homes and farms were destroyed in the floods. The grant was delivered to the woman of the household, primarily because it was likely that she would utilize the money in the best interests of the whole household. Families were able to choose for themselves which goods or services, or even savings, were their highest priorities in the aftermath of the floods. The grants were intended to generate local demand for goods and services and thus stimulate renewed economic activity.

USAID's hypothesis at the time was that working on the supply side of economic activity alone via credits was insufficient to re-establish economic networks. A direct

¹ ER: ACT had two other relevant, complementary components intended to increase the supply of goods and services in the flood damaged communities through the private commercial trading sector in the shortest possible time. First was a project designed to make short-term credit available for retailers and wholesalers to increase stocks in anticipation of increased demand from grant recipients (Inventory Credit Activity). Second was a project providing low-interest, term loans to rural commercial enterprises to repair facilities and equipment damaged or destroyed during the floods (Rural Enterprise Credit Activity). When it became clear in late 2000 that credit needs of wholesalers did not differ significantly from credit needs of other flood-affected enterprises, USAID combined the two credit programs into one, with the principle that both short term and long term credit could be provided.

cash transfer program would have the fastest impact on recovery of the economy in the shortest amount of time and at a cost comparable or less than other traditional emergency food programs. This would provide immediate liquidity to families, thereby stimulating local markets and jump-starting the local economy.

The Resettlement Grant Activity distributed cash grants to slightly more than 106,000 rural families. Each head of household received 1,500,000 meticaís in a single payment, about US\$91 to US\$93, depending on the fluctuating exchange rate during the December 2000 to April 2001 distribution period.

Originally expected to take place between August and October 2000, implementation was delayed by four months due to (a) US Congressional approval for supplemental funds; (b) the extra level of effort to establish the required beneficiary list; and (c) the complex logistic planning and security required for a distribution of this nature. Implementation took approximately four months and the last grant distributions were completed at the end of April 2001.

A Project Management Unit (PMU), led by Deloitte and Touche, was contracted for the organization and fieldwork associated with the Resettlement Grant Activity. The PMU's work occurred in two distinct phases – beneficiary identification and cash distribution.

The principal challenge in identifying beneficiaries was to overcome the enormous information gaps that existed regarding affected households. This required a village by village registration process whereby names were collected, lists compiled, losses inventoried, and all then verified by village elders. About 220,000 potential beneficiaries were registered and surveyed in this manner, documenting the extent of damages to homes and crops, and the levels of assistance previously received.

The second challenge during the beneficiary identification process was the establishment of eligibility criteria that were fair and transparent as well as operational at the field level. Based on information gathered by the field teams during the registration process, USAID and the Government of Mozambique (GRM) developed a set of criteria that were then tested during a pilot phase, refined, and became the basis for subsequent distributions; criteria are identified in Chapter 2. From close to 220,000 households registered, 114,432 recipient beneficiaries were ultimately determined to be eligible.

The actual cash distribution represented an enormous planning and logistical challenge. The Program Management Unit developed procedures and signed agreements with public and private entities for transport, communications, security and banking services. Distribution teams were organized and traveled by road and helicopter to distribution sites. Advance teams were deployed to inform villages of the distribution dates and enlist village chiefs in organizing the recipients. USAID's correspondent bank, Banco Comercial e de Investimentos (BCI), organized the delivery of pre-prepared cash packets and tellers to distribution sites.

On distribution days, the village chiefs assisted the teams in organizing lines of eligible heads of household. A color-coded identification ticket was issued to each eligible, registered recipient and then a bank check. Each individual's index finger

was dipped in indelible ink. Recipients were then guided to representatives of the bank where they were able to cash their checks immediately. A detailed security program was organized with a local security firm contracted to provide those services.

The distribution of US\$9.7 million in local currency cash grants was accomplished within a four-month period at 167 distribution sites that encompassed over 730 villages in 30 districts within the five affected provinces. On average over 1,100 cash grants were distributed daily in 94 distribution days. In total, 106,280 resettlement grants were distributed, representing 93 percent coverage of the eligible households; the remaining seven percent could not be located at the time of distribution.

The Impact Evaluation. USAID believed that the economic stimulus of a direct cash grant program for flood victims would have a significant positive impact on restoring local economic activity. This Impact Evaluation is intended to test this hypothesis, assessing the impact of the resettlement grants on the lives of the recipients and on the economy of the affected areas.

The Evaluation is based on a review of documents (see Annex 1), a series of interviews with those involved in the project (see Annex 2), and on four sets of in-depth sample surveys carried out in January and February 2002 with 630 households, 44 village chiefs, 96 retailers, and 11 wholesalers.

Survey Design. Registration lists and baseline data from two surveys undertaken by the PMU included a detailed pre-grant survey of 3,500 families as well as a smaller survey of commercial traders in the impacted areas. Given that nearly 750 villages in five provinces were reached, the principal variable to the evaluation of the activity's impact centered on the sample coverage and the sample size. The team defined both an appropriate number of villages to be covered and an appropriate number of households in each village. The estimates measuring the impact of the grant on households are based on a sample of 630 grant recipients. The precision of these estimates, stated in terms of the margin of error at 95 percent confidence level, is discussed in Annex 4.

Survey Writing. Four survey instruments were used to capture facts and opinions from a sample of those directly impacted by the grant program:

- Household Survey
- Village Chief Survey
- Retailer Survey
- Wholesaler Survey

Afrisurvey planned and implemented the field survey. After pre-testing in January 2002, several types of changes were made to the survey instruments:

- As a result of a perception by respondents that the survey team represented a first step of a new grant-making program, the wording of the introduction was changed to make clear the purpose of the survey. Interviewer training emphasized anticipation and preparation for such an attitude.

- Originally designed in English, the surveys' first Portuguese translation required adjustments to the exact and implicit meanings of several words and phrases.
- A few questions regarded as irrelevant were eliminated, and new, relevant ones were designed and added.
- The coding protocol was rationalized, and made consistent.

Survey Planning. Logistics planning was underway in December 2001 and January 2002. Arrangements were made for vehicles, communications, camping and other field equipment, food and water, mapping, village identification and locations, and scheduling. Important communications and relationships were established with village chiefs and district administrators. From the beginning, seasonal rains and consequent severe travel difficulties were anticipated, so there was an urgency about planning and carrying out the surveys. Ultimately, the survey teams were hampered by heat, but not severe travel conditions.

During this phase, two important elements became evident, changing the survey from a strictly simple random sample to a systematic sample.²

- First, that limited time and logistical obstacles would not allow visits to targeted villages that were so widely scattered. With the difficulties of travel and communications, it was not possible to adhere strictly to the intent of conducting proportionate numbers of interviews in the three categories of villages – very remote, remote, and accessible.
- Second, that it would be extremely difficult if not impossible to successfully locate and interview specific, individual grant recipients who could be identified in the PMU registry. As a consequence, surveyors would interview the most accessible and available grant recipients that could be identified upon arrival in a given village.

The original intention was to interview both the male and female heads of households in each of seven households in each village. After consultation with survey experts and USAID, the team decided to interview only the woman to avoid inconsistency, multiple interviews, or asymmetric data from polygamous men. As a result, household interviews were conducted with women grant recipients, consistent with the original rationale that delivered the grants to women.

In January 2002, some 20 interviewers participated in a four-day training session conducted in Maputo by the Abt team. They discussed program objectives, their role, interview techniques, language sensitivities, and field travel issues. Using the specially written training manual that ultimately became their field guide, they carried out mock interviews among themselves. They prepared for physical hardships in the field, and health and safety issues. Following a day in a rural village conducting practice interviews, the interviewers and staff re-grouped to make additional adjustments and plans.

² See Annex 4 for a discussion of Survey Estimates and Sampling.

Survey Implementation. The interviewers and supervisors were divided in two groups of teams, one group made up of two teams covering the provinces of Maputo and Gaza, the other group made up of three teams covering the provinces of Inhambane, Sofala, and Manica. Interviews were conducted over a two-week period in late January and early February 2002.

The importance the team placed on securing permission from village chiefs and district administrators was worth the effort, assuring survey practicalities and efficiencies. Advance visits and communications with village chiefs and district administrators succeeded in facilitating surveys in all but one case.³

As shown on Table 1-2, the initial target number of surveys was largely met. The target reflected the proportionate numbers of villages and grant recipients in each province – 14 villages, 14 village chiefs, and 630 households. The 96 retailer interviews conducted did not meet the target of 270 (six in each of 45 villages) simply because that number of retailers does not exist in and around the villages. The 11 wholesalers interviewed represented half of the country’s 22 wholesalers, all based in Maputo or Beira.

Table 1-2. Number of Surveys Conducted, by Province and Survey Type

Provinces	Villages Visited	Households Surveyed	Village Chiefs Surveyed	Retailers Surveyed	Wholesalers Surveyed
Gaza	12	174	11	14	0
Inhambane	5	72	5	18	0
Maputo	4	56	4	3	8
Manica	7	98	7	13	0
Sofala	17	238	17	48	3
Total	45	638	44	96	11

After survey reviews and cross-checking by field supervisors, the completed surveys were brought to Maputo for final reviews and collating.

During this period, Caresoft Lda. designed and developed a comprehensive database for this project. It is a graphical, Windows-based user interface that employs the frames, panels, etc. used on most Microsoft-based software. It was developed using Microsoft Visual Basic 6.0 programming language. This entailed developing active screens, database storage, linking active screens to database storage, developing and activating the “business logic”, and testing and debugging. Fields were created in the database to relate to the active screen. A corresponding database entry was developed for each screen entry. Internal screen names were matched to the corresponding field name in the database. Database training and data entry took place over a two-week period in late February 2002.

³ In one district in Manica, the deputy administrator would not let the team proceed to several villages; those villages were replaced with others elsewhere in Manica.

CHAPTER 2 BENEFICIARY IDENTIFICATION PROCESS

The Resettlement Grant Activity began with a target of 87,000 families. However, it quickly became apparent that the information base supporting the target number was poor and internally inconsistent. As a result, the program had to begin by surveying affected families, refining selection criteria and selection areas, and registering households. Finally, to verify selection, households were evaluated against the criteria, selected and targeted.

Geographic Location. Beneficiary identification was a difficult process. The original proposal outline simply stated that the resettlement grant would be directed toward assisting those “negatively affected” and required definition to determine a target group. The first phase therefore involved documenting the geographic area where the target group would be found. This entailed meeting with government officials, donor agencies, church groups, volunteer groups and non-governmental organizations (NGOs) that played an active role in the humanitarian relief effort of early 2000 or that were presently working within the affected areas. The Technical Secretariat of Election Administration (STAE) and the National Directorate of Geography and Mapping (DINAGECA) were also solicited for information pertaining to census statistics and geographic specifications of the affected areas.

Local disaster committees and NGOs based in the field were consulted. With this information and the PMU’s own research, 32 specific districts in five provinces were targeted:

- Manica: Sussendenga, Mossurize, Machaze
- Inhambane: Govuro, Maxixe, Vilankulos, Mabote, Inhassoro, Panda, Inharrime, Inhambane
- Maputo: Manhica, Magude, Marracuene, Moamba, Boane, Matutuine, Namaacha
- Sofala: Buzi, Machanga, Chibabava
- Gaza: Chibuto, Mabalane, Chokwe, Chicualacuala, Massingir, Bilene, Guija, Xai-Xai, Massangena, Chigubo, Mandlakazi

Compilation and Verification of Lists. NGOs provided lists of affected people in the areas in which they were working and had access, but these lists did not provide a comprehensive accounting of affected people. NGOs were not working in areas, for instance, where helicopters dropped food aid during the flood emergency.

As data were collected from a variety of sources, it needed to be verified, a process that involved entire communities. Monitors were selected, trained and sent to the communities to evaluate the actual situation and compare it with the information previously gathered. In certain instances where travel distances were extremely long or inaccessible, committees made up of village leaders were consulted.

The PMU informed those present at the community meetings of their purpose to collect information about those affected by the floods. Information gathered in the communities included the name and gender of the head of family and spouse (if applicable), whether the individual was single or widowed, the number of individuals within the immediate household and losses suffered due to the flooding and cyclones (e.g., loss or damage to infrastructure, cultivated fields, animals, goods, etc.). Information pertaining to those community members not present during the verification and registration process, yet affected by the flooding, was solicited in order to compile a comprehensive picture of the loss and damage in the area.

Besides verifying the community members affected by the natural disasters, the PMU visited individual households. In this personal setting, a baseline survey was implemented aimed at gathering information pertaining to (a) the present status of the household; (b) whether the household was forced to flee its homestead during the flooding and if so, when it was able to return; (c) the type of assistance, if any, received by the household; and (d) the level of recuperation achieved. Household heads were also asked to prioritize the goods and services that would be acquired if they had the means to purchase or produce them.

Households Registered. Throughout the four-month verification phase, with the assistance of information solicited by the PMU from over 100 organizations, and applying the initial criteria used, 219,083 families were registered within the five designated provinces. The registered number far exceeded the estimated 87,000 households originally targeted by USAID. The increase in households registered was attributed to several factors:⁴

- The PMU team entered areas not previously visited, principally due to lack of access (usually from standing water).
- Village residents in the most isolated areas were assisted with food aid dropped at designated distribution points via helicopters. These individuals – not formally registered on any government or organization list and not included in published figures – were registered by the PMU.
- Additionally, particularly in the province of Sofala, those affected by Cyclone Eline were not formally registered. The cyclone destroyed virtually everything within its path in the districts of Machanga, Buzi and Chibababava. Households that received emergency assistance within these districts were those mostly affected by the flooding of the Buzi and Save Rivers as opposed to Cyclone Eline. This under-reporting of victims of the cyclone also stretched into the province of Manica, specifically in the districts of Machaze, Sussendenga and Mossurize. As a result, the inclusion of these households on the PMU verification lists resulted in elevated numbers in the two provinces.

⁴ The PMU conducted this work following the spirit of the terms of reference, which had stated only that the target group were those who had been “negatively affected” by the floods. The 219,083 figure emerged from a loose application of criteria, rather than the “additive” approach that was intended and ultimately established by December 2000. The PMU embarked on Manica and Inhambane distributions with a simple application of any of the five criterion (the “either/or” rather than the “additive” approach).

Determining Selection Criteria. The selection criteria, as defined in the original proposal outline, simply state that the resettlement grant would be directed towards assisting those “negatively affected” by the natural disasters of early 2000. The criteria evolved as the project went forward. With the compilation of lists it was possible to make better decisions and develop workable, reasonable, and transparent selection criteria. The eligibility criteria for the resettlement grants under ER: ACT were formally approved by USAID, Ministry of Industry and Commerce, and the Ministry of Women and Social Action.

Guiding Principles. Fairness and political acceptability were important guiding principles. Early in the design stage, it was decided that the grant money would be given to women heads of households. There were three main reasons for this:

- In most of the affected areas, the family is led by women due to men migrating to jobs.
- Polygamy is a common practice particularly among households in the central areas. Within a polygamous setting, the PMU considered wives and their children as the individual family unit.
- Additionally, the project managers felt that women might be better than men in making spending decisions reflecting family priorities.

During the PMU pilot phase (in Manica), with the realization that the numbers could far exceed the 87,000 households that USAID had estimated, eligibility criteria were strictly enforced with two fundamental clarifications:

- Resettlement area – The people who received a cash grant could not also be located in a designated family resettlement area. This meant that they were better off than those who had not participated in resettlement programs.
- Second harvest – The second harvest indicator also allowed clarification on the help received. A second harvest was an indicator of a family receiving significant assistance such as seeds and tools donated by NGOs in the areas where they worked.

The PMU and the Program Committee (PC) jointly refined the criteria presenting several draft versions prior to approval.

The final selection of criteria was influenced by data relating to results of second harvests throughout the country. This information was seen as a key indicator in the livelihood of individuals as over 80 percent of the households affected within the five provinces rely on agriculture as their only source of livelihood. Questions pertaining to the second harvest were incorporated into the baseline survey to assist in field assessments. In addition, recorded field observations depicting the overall situation within the areas and knowledge gained from interviews with GRM officials, NGOs, and other organizations working within targeted areas was taken into consideration. Overall results of the baseline survey were deemed as vital information in the selection process.

Technical Criteria. Since the program qualification criteria were additive, and not “either/or”, registered people had to meet all criteria, rather than any one of the criteria. In the end, this restricted the number of eligible participants. The final version of the selection criteria approved in January 2001 was the following:

1. The household was located in one of the districts affected by the floods and/or cyclones in the beginning of calendar year 2000 and which were on the list; AND
2. The household was outside a formal resettlement zone;⁵ AND
3. The residence was destroyed or significantly damaged or the household was otherwise forced to resettle; AND
4. Crops were lost or damaged or other sources of income were disrupted or lost; AND, EITHER
5. The household did not have the means with which to produce a second harvest in calendar year 2000 or resided in an area where a second harvest in calendar year 2000 was not possible; OR
6. The household did not meet all of the above criteria but it was located in a community of 300 households or less where at least 70 percent of the households in the community were affected as per criteria listed in 2 above.⁶

As planned, nearly all (93 percent) village chiefs participated in the selection of grant recipients. Their involvement was vital to the success of the program, and reinforces the importance of effective communication at the village level.

Nearly 81 percent of village chiefs reported that they understood the selection criteria, and found it easy to provide information to the grant resettlement team.

Table 2-1. Village Chiefs Understanding of Selection Criteria

Understood selection criteria	Number	Percent
Yes	36	82
No	6	14
Don't Know	2	4
Total	44	100

About 95 percent of village chiefs regarded the selection criteria as fair and believed that the selected families were in need. With only eight percent of chiefs reporting that some who received grants were not in need, they were effectively confirming that the selection criteria worked well.

⁵ Resettlement zones were areas selected by the government for permanent resettlement where families received significant and continuous assistance. Resettlement camps were areas where flood victims were provided refuge during and shortly after the floods.

⁶ This sixth criterion was established to balance equity and efficiency. On the one hand the program didn't want to foster community discontent by making grants to 70 percent or more of households in a small village where all are poor even though not all might be technically affected; and on the other hand, the PMU didn't believe it was efficient to reach very small villages of fewer than 300 households where at least 70 percent of the households were affected.

The one reason given as to why some families may have been left out is that they were absent. However, some families who needed assistance were left out as they were in small villages (with fewer than 300 households where 70 percent or more did not meet criteria and therefore the whole village was left out).

Negative aspects of the beneficiary identification process were few, but noteworthy. Many affected families were excluded, as they didn't register. They were simply tired of registering and not receiving anything; they had previous experiences of signing up and waiting for assistance that never materialized.⁷

With these criteria, 114,000 households were eligible. Since funds for only 87,000 had been anticipated for this activity, USAID re-aligned the budget of the economic recovery component in order to accommodate the additional 27,000 households.

The disaster's impact was severe, as shown on Figure 2-1 on the following page. Over 80 percent of beneficiaries lost all or a large part of their houses, food, goods and livestock. Equipment losses were more limited. Over 62 percent of beneficiaries reported that they did not own any equipment. Of the 38 percent of beneficiaries who reported owning equipment, 25 percent said they had lost their equipment during the floods.

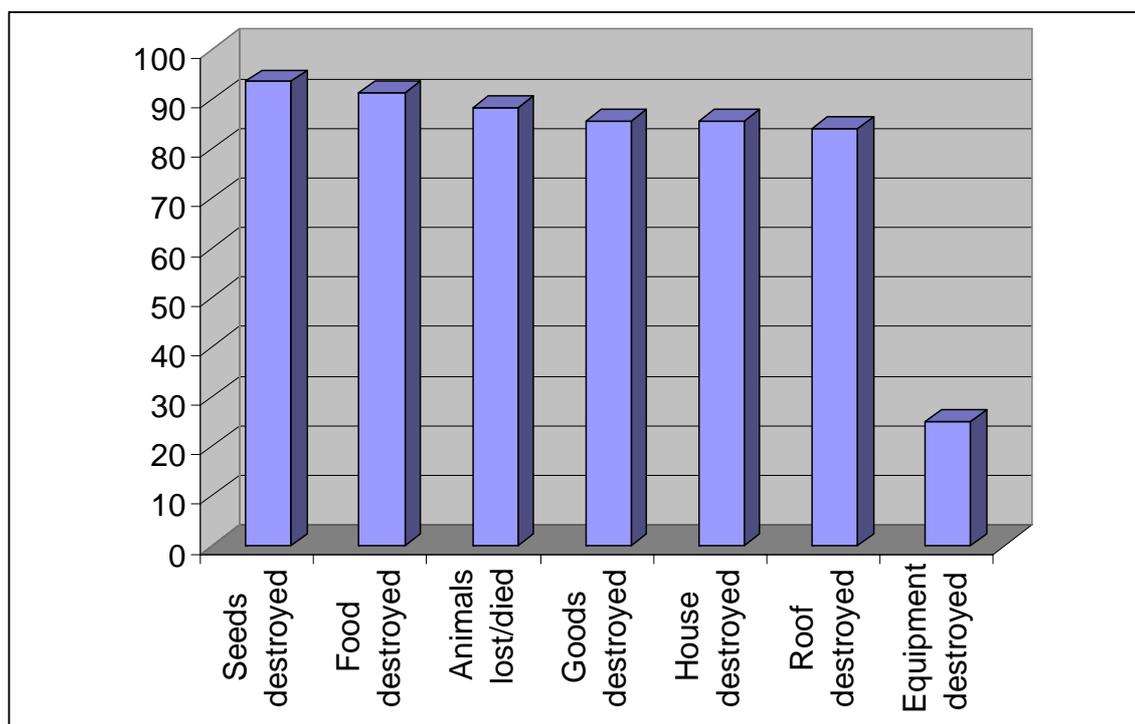
Because virtually all grant recipients (96 percent) earned their income principally from agriculture, the destruction of their cultivated fields had severe effects, and was a major factor in meeting eligibility criteria. The survey results provide data allowing an evaluation of the success of reaching the target households. As shown on Table 2-2 below, the beneficiaries from Gaza, Manica and Maputo provinces reported that all their fields were flooded and therefore crops destroyed. In Inhambane and Sofala provinces, well over 90 percent of respondents reported that their fields were flooded. Overall, nearly 98 percent of the respondents reported that their cultivated fields had been flooded.

Table 2-2. Destruction of Small Farms

Province	Destroyed Small Farms		Small Farms not Destroyed		Total Number
	Number	Percent	Number	Percent	
Gaza	173	100	0	-	173
Inhambane	68	97	2	3	70
Manica	98	100	0	-	98
Maputo	57	100	0	-	57
Sofala	225	94	13	5	238
Total	621	98	15	2	636

⁷ For security reasons and to avoid a moral hazard problem, the PMU didn't discuss the nature of the assistance during the beneficiary registration process. As a consequence, many potentially eligible people did not register; they didn't realize that assistance would really be forthcoming.

Figure 2-1. Effects of the Floods
(percentages of grant beneficiaries suffering losses)



As shown on Table 2-3 below, nearly all grant recipients were unable to collect a second harvest.

Table 2-3. Second Harvests

Province	Did Not Collect Second Harvest		Collected Second Harvest		Total Number
	Number	Percent	Number	Percent	
Gaza	174	100	0	-	174
Inhambane	69	99	1	1	70
Manica	97	99	1	1	98
Maputo	57	100	0	-	57
Sofala	233	97	6	3	239
Total	630	99	8	1	638

Nearly all grant recipients were displaced from their homes for a period of time during and after the floods, but only about one-quarter of them spent time in resettlement camps. As shown on Table 2-4 below, most of those grant recipients who lived in a resettlement camp spent up to one year there.

Table 2-4. Grant Recipients Spending Time in a Resettlement Camp

Province	Less than Two Weeks		Two Weeks to Three Months		Three Months to One Year		More Than One Year		Don't Know	
	No.	%	No.	%	No.	%	No.	%	No.	%
Gaza	7	18%	31	66%	29	64%	1	7%	7	70%
Inhambane	0	0%	5	11%	8	18%	1	7%	1	10%
Manica	10	26%	6	13%	4	9%	8	57%	0	0%
Maputo	0	0%	2	4%	2	4%	0	0.0%	1	10%
Sofala	22	56%	3	6%	2	4%	4	29%	1	10%
Total	39	100%	47	100%	45	100%	14	100%	10	100%

Conclusions. For the most part, the selection process was a success. It evolved during a time-sensitive situation, and with virtually no prior experience in identifying families in such remote areas affected by natural disasters. Identifying and registering victims was very difficult; little data about residents and flood victims was available. The international humanitarian relief organizations had no lists of affected families. Local efforts to help were sporadic with no real attempts to register affected people or families. As a result, beneficiary criteria had to be developed, tested, and agreed upon as part of the program. The surveys confirm that the criteria were stringently applied and that those who received grants were indeed the affected people. The beneficiary identification process can be characterized as appropriate and effectively administered.

CHAPTER 3 HOUSEHOLD IMPACTS

Grant Recipients. Grant recipients were poor, largely subsistence farmers, inhabitants of rural areas, living in villages near their own fields. For them, the 1999-2000 floods were indeed devastating and frequently fatal. In interviews, several referred to losing family members to the floods.

Not surprisingly, nearly all (96 percent) recipients derived their principal source of income from agriculture. Salaried and commercial workers together represented nearly three percent.

Nearly all recipient families owned a bicycle. Some affected families in the southern provinces owned a plough animal and a sewing machine, but very few owned other significant personal items.

Destruction of family homes and livelihoods was high; homes and roofs were lost by about 85 percent of households, food and goods were lost by about 90 percent, and seeds and livestock were lost by about 95 percent. Of those households that owned equipment, two-thirds of households lost it in the floods. Virtually all recipients lost their fields to the floods and were unable to collect a second harvest.

About one-quarter of recipients spent some time in resettlement camps. Nearly all recipients (99 percent) received assistance other than staying in resettlement camps and the grant itself. From other sources, they received food, construction materials, and health services.

Many recipients live in areas often affected by extreme natural conditions. They suffered in the floods, and are now, in the same areas, suffering with drought. Many asked for immediate assistance.

Recipient Views. Grant recipients regarded the program as a success. Many took the opportunity of the presence of the survey team to express their gratitude. Nearly all

Box 1. Grant Recipient Comments

The grant amount was not enough.

- *I bought things I needed even though the money wasn't enough.*
- *I bought the little I could because the money was little.*

recipients (98 percent) expressed satisfaction with the program. A small number of recipients in Gaza and Inhambane reflected dissatisfaction, considering that the process was not transparent and the grant amount was not sufficient for their needs. Villagers in Maxixe, for instance, thought the distribution process and the criteria for selecting beneficiaries was not clearly explained to them. Villagers in Chicuecue thought there had been a degree of unfair manipulation based on

personal relations. One recipient in Gaza was told that because she had no children, she could only receive half the grant; others thought that the prices for goods were much too high.

Recipients were clearly pleased with the grant program, particularly as it compared with other assistance programs. More than 80 percent thought it better than other programs in terms of getting needed items (and 16 percent thought it at least as good as other programs). About a third of recipients, however, credited other programs' selection and distribution process as good as this program's process. One recipient reported that distribution was difficult because the village secretary was drunk on that day.

Nearly all recipients were women, as intended. Not surprisingly, however, several recipients gave the grant to their husbands, and were not sure how the money was spent. A Sofala recipient gave her grant to her husband out of fear of being beaten.

Comments taken from one of the "open-ended" survey questions described suffering and loss, but revealed villagers mostly grateful, often spiritual, recounting their dancing and singing upon receipt of the grant. Recipients verified several program assumptions and hypotheses, as illustrated by their comments in the boxes below.

Box 2. Purchasing Patterns
Household Needs

- *When choosing food items, recipients purchased mostly sugar, salt, and cooking oil, and not water or alcohol.*
- *Among consumer products, soap and matches dominated, while paraffin was less in demand.*
- *Most clothes were purchased for the recipient or her children, very few for the husband.*
- *Among household goods, dishes, pans, and blankets dominated, while few water containers were purchased.*

Use of Grants. In general, grants were spent on what program designers envisioned. Most was spent on household goods, clothes, and livestock. Expenditures for food were high as well, and many recipients expressed particular appreciation for being able to buy food, but food was not the most purchased good. Expenditures on seed and construction materials were substantial.

As shown on Figure 3-1 on the following page, recipients used the grants primarily for household goods (e.g., dishes, pots, pans, blankets), secondarily for clothes and livestock, and then for food, seed, and construction materials.

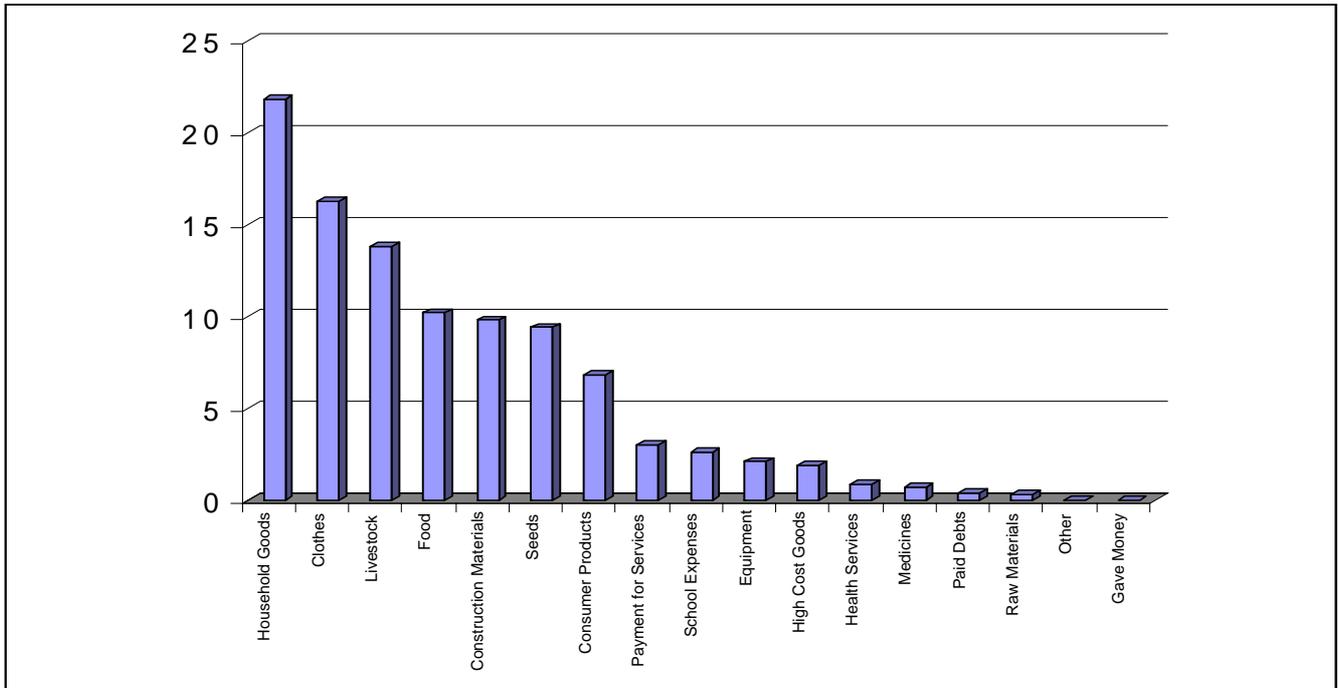
Anecdotal evidence gathered by the survey team suggests that some recipients used the grant to purchase their divorce (buy back their *lobolo*) from their husbands; one reported to the survey team that she did exactly this. Based on

Box 3. Purchasing Patterns
Personal Use

- *Virtually all grant resources were spent within the family, with some minor amounts given to teachers or chiefs.*
- *Very little grant money was used to repay debts and loans.*
- *Health expenditures were more for services than medicines; many recipients received free medicines from other programs.*
- *School supplies rather than schoolbooks were the main education expenditure; many received donated schoolbooks from other programs.*

the prevalence of polygamy, principally in Sofala and Manica, project managers assumed male grant recipients would purchase new wives, but no evidence of this was found. Generally, recipients (86.5 percent) say they made the purchases that they desired.

Figure 3-1. Percent Use of Grant, All Five Provinces



Box 4. Purchasing Patterns
Housing

- *Grants used for labor were mostly spent on house repairs, not agricultural labor.*
- *Many recipients rebuilt their homes with traditional, local materials. Construction purchases that were made were mostly for doors, nails, roofing, reeds, and poles; little was spent on paint, cement, and blocks.*
- *Some materials were provided by other assistance programs, but some materials – zinc roofing material for one – were often re-sold by flood victims because it was not what they needed.*

Provincial Variations. Expenditure patterns varied by province, in some cases quite substantially, as shown on Table 3-1 below.

Table 3-1. Percent Use of Grants, by Province

	Gaza	Maputo	Manica	Inhambane	Sofala	Total
Food	25%	63%	23%	6%	39%	11%
Consumer Products	21%	3%	21%	1%	54%	7%
Clothes	26%	10%	18%	8%	37%	17%
Seeds	31%	5%	16%	3%	45%	10%
Livestock	25%	3%	17%	10%	45%	14%
Household Goods	14%	11%	16%	7%	52%	22%
School Expenses	20%	0%	7%	3%	69%	3%
Medicines	50%	0%	7%	0%	43%	1%
Health Services	62%	0%	5%	5%	29%	1%
Equipment	12%	34%	18%	5%	30%	3%
Payment for Services	26%	3%	10%	16%	46%	3%
Construction Materials	40%	17%	3%	22%	18%	7%
Gave Money	0%	0%	0%	0%	0%	0%
Paid Debts	40%	0%	20%	40%	0%	0%
High Cost Goods	4%	11%	22%	9%	53%	2%
Raw Materials	13%	0%	13%	25%	50%	0%
Other	0%	0%	0%	0%	0%	0%

Location of Expenditures. The use of the grant also varied by where the recipients actually spent the money. As Table 3-2 below shows, most village purchases were made for food, consumer products, clothes, seeds, and service payments. High cost goods and school expenses were made in the district capitals. A significant percentage of livestock, household goods, and equipment were purchased in Maputo, but most reported such purchases were made in Zimbabwe.

These geographic patterns of expenditures almost certainly reflect normal spending patterns of households. Those that spent the grant in Zimbabwe normally purchase those goods there. Whether the pattern is because someone in the household is employed in that location or because they usually purchase those goods at a certain source, there is no special significance to household expenditures outside of Mozambique, or far from home. Border crossing is common, more so of course by those who live nearest the borders of Zimbabwe and South Africa. The more significant pattern is that in which the grant was spent in the village itself, or in the vicinity of a grant distribution point.

Table 3-2. Percent Use of Grant, by Where Spent

	Village	Distribution Point	Nearby City	District Capital	Beira	Maputo	South Africa	Zimbabwe	Total
Food	45	2	20	17	4	4	1	8	100%
Consumer Products	57	2	17	13	3	2	0.3	6	100%
Clothes	58	2	16	13	4	2	0	5	100%
Seeds	61	1	17	11	3	3	0	4	100%
Livestock	8	0	0	26	0	0	0	66	100%
Household Goods	10	0	0	20	0	0	0	70	100%
School Expenses	0	0	0	100	0	0	0	0	100%
Medicines	0	0	0	0	0	0	0	0	0
Health Services	46	0	4	30	20	0	0	1	100%
Equipment	6	0	0	0	0	26	0	68	100%
Payment for Services	62	0	2	17	18	0	0	1	100%
Construction Materials	0	0	0	0	0	0	0	0	0
Gave Money	0	0	0	0	0	0	0	0	0
Paid Debts	0	0	0	0	0	0	0	0	0
High Cost Goods	20	0	0	80	0	0	0	0	100%
Raw Materials	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0

CHAPTER 4 ECONOMIC EFFECTS

USAID's Resettlement Grant Activity was intended to provide an efficient and effective alternative to traditional relief programs. It was hypothesized that as a result of the multiplier effect, a cash transfer program (of US\$9.7 million) would provide significantly greater impact on local economic activity relative to other programs; local demand for goods and services would in turn stimulate economic activity as merchants and laborers expanded their activities.

The concept of cash relief following disaster situations has been an infrequent donor practice as a tool of emergency aid by both bilateral and multilateral donor institutions. In general, this type of aid has been controversial and treated with caution.

Nevertheless, it is generally recognized that in terms of theory and practice there appears to be a strong case for cash-based responses, at least to food emergencies where the supply and market conditions are appropriate. Practical experience to date, albeit limited, suggests that direct cash distribution, in the right circumstances and with careful planning and monitoring, can be more timely, less costly and more empowering to local communities than traditional food distribution.⁸

“The distribution of cash or a package based upon economic value could be more efficient in terms of logistics, and provide [beneficiaries] with much greater ‘value’ and a flexibility to use the aid to meet whatever their specific needs” (Wilson, 1991:14).

The evidence concerning the impact of cash disbursement on economic activity is less clear. Over the past 20 years, cash has been used as a form of assistance for rehabilitation in a small number of emergency and post emergency situations. The underlying motivations for providing this type of aid are apparent:

- empowerment of the recipient to prioritize goods and services according to household needs;
- transfer of income in cases where individual/household income is halted and lost over a significant period of time; and
- stimulation of demand through a transfer of income, which in turn stimulates supply and hence economic activity, is re-established in affected areas.

On the other hand there are arguments against this type of post-disaster aid:

- perceived lack of capacity on the part of the recipient to spend the money effectively;
- lack of access to goods and services;⁹
- inflation exacerbated by injection of cash; and

⁸ *Buying Power: The use of cash transfers in emergencies*, British Red Cross, November 2000. This Red Cross document, cited elsewhere in this chapter, is a comprehensive literature review of most cash relief programs that have been implemented since the 1970s.

⁹ In very underdeveloped economies or in post-emergency situations, thin or missing markets mean many goods and services may not be available at any price. In the case of floods, this is especially the case for food.

- concerns about corruption, diversion and leakage of funds.

This chapter focuses first on economic effects including inflation, price gouging and economic stimulation (including recovery of distribution networks, recovery of production capacity of local households, and multiplier effects). Then, an analysis is presented of the costs and benefits of the program.

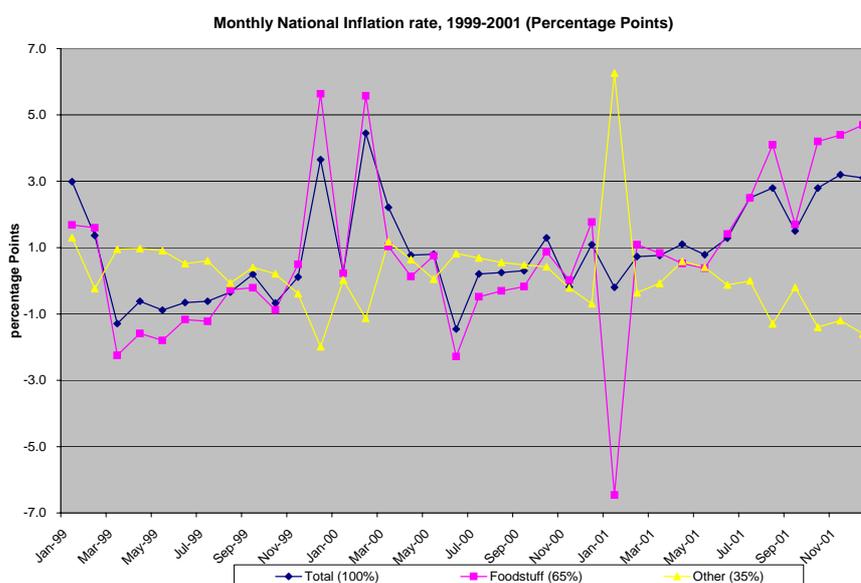
Inflation. Inflation is a national macroeconomic concept while the Resettlement Grant Activity was localized in select districts of five provinces. It is widely recognized that the floods of 2000 had a determinant role in the abnormally high inflation rates experienced throughout that year, disrupting the progress made in this area by the Government of Mozambique.¹⁰ Structural adjustment and stabilization programs implemented over the past decade resulted in a significant reduction in inflation (as measured by the Consumer Price Index, CPI) throughout the late 1990s, as shown on Table 4-1.

Table 4-1. Inflation: Consumer Price Index, 1996–2000 (%)

	1996	1997	1998	1999	2000
CPI (%)	46.9	6.4	0.6	2.0	10.3

As Figure 4-1 illustrates, monthly inflation exhibited abnormally large fluctuations during the first quarter of the year 2000, coinciding with the impact of the floods. Global inflation figures were clearly affected by the price increases of foodstuffs, which account for 65 percent of the baskets of goods used in the inflation calculations. However, given the level of aggregation of the data available and the fact that it only reflects prices in the three major cities (Maputo, Beira, and Nampula), one cannot derive a direct correlation with the impact of the floods of 2000. This is in contrast to prices for other goods used in the CPI calculation, which remained stable (health, education and transport services) or fell (clothing and footwear).

Figure 4-1. Monthly National Inflation Rate, 1999-2001 (in percentage points)



The supply shortages that caused a jump in food prices were due to poor or lost harvests and loss of household stocks of main agricultural foodstuffs in flood stricken areas. This, in turn, resulted in market shortages in large parts of the south and central regions of the country. Estimates from the Food and Agricultural Organization (FAO) place cereal and bean production throughout the year 2000 at levels eight percent below those achieved during 1999. At the same time, the disruption of transport infrastructures throughout the southern and central regions reduced capacity to transport cereals, grains and other foodstuffs to flood stricken areas, either through imports of these goods from neighboring countries (such as Zimbabwe and South Africa) or from surplus producing regions in the north of the country.

Impact on Inflation of the Grant Resettlement Program. Previous experiences with cash distribution programs have highlighted the inflationary pressures that arise from cash deliveries in local economies where food prices are rising rapidly due to overall food shortages. A cash-for-food project in Ethiopia found that local food prices increased more as a result of food shortages than the cash transfer itself (Red Cross, 2001).

The amount of local temporary inflation would be a function of the supply and variety of goods in the market at the time of the grant distribution, distance to neighboring markets, and the price setting behavior of national, regional and local traders. In the Mozambican case, the impact on inflation of USAID's Resettlement Grant Activity should ideally be assessed taking into account both the demand and supply components of the program. On the one hand, increased demand was created by the Resettlement Grant activities and, on the other hand, supply was facilitated by another component of USAID's ER: ACT program – the Rural Enterprise Loans activity.

It should also be noted that USAID's emergency response also included US\$35 million for road rehabilitation (Inchope-Gorongozza; Chokwe-Macarretane; Guijá-Chibuto; EN1 in Nova Mambone – taking place in areas where grants were distributed) and US\$35 million for Limpopo rail rehabilitation (Maputo-Macarretane).

Inflationary effects of the Resettlement Grant Activity should be analyzed and compared in the context of similar monetary or goods injections by relief efforts undertaken by other international agencies and NGOs during the floods.

Inflationary dynamics can be mitigated, in the short and medium to long term, if parallel actions are targeted to reestablish supply/distribution chains and production capabilities in flood stricken areas. This allows the supply of foodstuffs in the immediate term and the rehabilitation of agricultural production capacity in the longer term.

Evidence from the Sample. This section uses the results from the survey undertaken in districts that benefited from the Resettlement Grant Activity to explore the possible effects of inflation caused by the injection of cash into the affected areas.

¹⁰ See 2000 Annual Report by Banco de Mozambique; also FAO and World Bank reports.

The results from the survey suggest there was an increase in consumer spending during the period that cash disbursements were made. As presented in Table 4-2, up to 65 percent of local retailers that participated in the survey thought that local people spent more during that period, and only six percent believed the opposite.

A significant proportion of Resettlement Grant beneficiaries' spending went to goods other than food (see Table 4-3). Thus, when retailers were asked what type of products had been purchased by beneficiary households, the various types of food products received 48 percent of total responses, other consumable goods 20 percent, household items 10.5 percent, equipment six percent, seeds five percent and clothes and construction materials 2.7 percent each.

Table 4-2. Retailers Reporting That More Money Was Spent During This Period

	Number	Percent
Yes	63	65
No	06	6
Don't Know	02	2
No Answer	26	27
Total	97	100

Table 4-3. Retailers Response to Types of Products Purchased By Grant Recipients

	Number of Responses (multiple)	Percent
Food	691	48.2
Construction materials	38	2.7
Seeds	68	4.7
Other consumables	284	19.8
Clothes	38	2.7
Household items	151	10.5
Medicine	1	0.1
Livestock	39	2.7
Equipment	86	6.0
Large items	0	0.0
School material	38	2.7
Total Products	1434	100.0

The results obtained from retailers' responses, above, differ somewhat from the consumption patterns expressed by beneficiary households that participated in the survey, below. Differences are accounted for by the facts that:

- households bought goods from many sources other than the retailers interviewed;
- most of the retailers interviewed were primarily merchants of food; and
- figures in both tables should not be read as the proportion of grant money that was spent on each type of good, but rather as the number of responses that each type of good received in the survey.

As shown on Table 4-4 below, 18 percent of purchases consisted of food, 14 percent of purchases went to acquiring seeds, 14 percent to household goods, 11 percent were purchases of clothes, six percent were purchases of livestock, 5.5 percent were acquisitions of construction materials and four percent of purchases consisted of different types of equipment.

Table 4-4. Use of Grant, All Five Provinces

	Use of Grant			
	Number	Percent	Value (MZM)	Percent Value
Food	1763	17.9	49,361,817	6.8%
Consumer Products	1360	13.8	30,428,940	4.2%
Clothes	1046	10.6	88,068,100	12.1%
Seeds	1391	14.1	56,642,500	7.8%
Livestock	626	6.4	101,643,150	13.9%
Household Goods	1336	13.6	101,780,750	13.9%
School Expenses	359	3.6	11,660,046	1.6%
Medicines	137	1.4	2,857,500	0.4%
Health Services	214	2.2	3,748,000	0.5%
Equipment	360	3.7	29,398,000	4.0%
Payment for Services	252	2.6	45,124,000	6.2%
Construction Materials	541	5.5	63,119,700	8.6%
Gave Money	163	1.7	24,992,000	3.4%
Paid Debts	57	0.6	7,704,000	1.1%
High Cost Goods	175	1.8	14,929,000	2.0%
Raw Materials	53	0.5	5,740,000	0.8%
Other	20	0.2	93,925,335	12.9%
Total	9853	100.0	731,122,838	100.0%

A further attempt was made to quantify the value of the purchases made by households in the sample with the money received from the program. The results corroborate the view that only part of the money was used for food purchases (seven percent), the rest being spent on other consumer goods (clothes 12 percent of total expenditure; other 13 percent; seeds eight percent; livestock 14 percent; and household goods 14 percent).

In this sense, the food inflation effect of the program may not have been very significant, given the purchasing patterns described above, which show a clear tendency towards purchases of items other than food. The cash disbursement approach allowed beneficiaries to make the expenditure decisions that reflected their needs as a result of damage brought about by the floods. As the above responses suggest, these do not necessarily consist only of food and other consumption goods, but also of producer goods (equipment, seeds, and livestock) suggesting a possible longer-term development consequence of the program.

Nevertheless, there still appears to have been post-flood inflationary dynamics in the districts that participated in the program according to interviewed retailers. It is not clear whether these were solely related to the impact of the Resettlement Grant Activity. More than 63 percent of survey participants acknowledged the existence of price changes in the aftermath of the floods, and a large majority of these (88 percent) thought that prices had increased. In addition, we would expect that in isolated regions the impact of scarcity of goods would result in higher inflation rates than in communities with better communications to major distribution centers, though no data is available on other flood-affected areas to confirm this point.

In this context, there appear to be regional differences in the post-flood price dynamics. Only 29 percent and 0 percent of retailers interviewed in the southern provinces of Gaza and Maputo, respectively, believed that there had been any price changes, in comparison to percentages as high as 100 percent, 75 percent and 63 percent in Inhambane, Manica and Sofala, respectively. This may well reflect better links of the two southern provinces with the main national distribution hub (Maputo) and the South African market.

Table 4-5. Retailers Response As To Whether There Were Price Changes After The Floods

	Gaza		Inhambane		Maputo		Manica		Sofala		Total	
	No.	%	No	%	No.	%	No.	%	No.	%	No	%
Yes	4	28.6	17	100	0	0	6	75	22	62.8	49	63.7
No	9	64.3	0	0	3	100	2	25	12	34.3	26	33.7
Don't Know	1	7.1	0	0	0	0	0	0	0	0	1	1.3
No Answer	0	0	0	0	0	0	0	0	1	2.9	1	1.3
Total	14	100.0	17	100	3	100	8	100	35	100.0	77	100.0

Table 4-6. Retailers Opinion of Price Changes After the Floods

	Number	Percent
Increased	43	87.6
Decreased	3	6.1
Don't Know	2	4.1
No Answer	1	0.2
Total	49	100.0

When asked their opinion to reasons that could explain price variation, 21 percent of the retailers who thought that prices had indeed increased attributed the increase to the amount of money in circulation (which could have been the direct result of the Resettlement Grant Activity itself). However, other factors appeared to have played an equally important role, such as the scarcity of products (35 percent of responses), higher prices at source (19 percent) and increased transport costs (seven percent).

Finally, a significant portion of these retailers (19 percent) was unable to provide an explanation for the price increases. Nonetheless, the large percentage of responses pointing to the scarcity of products as a major source of inflation highlights the importance of accompanying cash disbursement programs with other complementary programs on the supply end through the restocking of goods, increased access to markets and improvement and rebuilding of distribution channels connecting these districts to food surplus regions or to international markets.

Evidence of price gouging. The results of the surveys of retailers and wholesalers do not provide any conclusive evidence of price gouging. Although there might have been a certain degree of opportunistic behavior by local traders, the available evidence (see Table 4-7) suggests that the main cause of inflation was the scarcity of products.

A significant number of interviewed retailers (21 percent) did believe that the price increases were mainly caused by the increased amount of money in circulation in the flood-affected areas, suggesting the existence of price gouging. In this respect, at the microeconomic level there would be no economic rationale for retailers to increase prices solely as a result of increased money supply in circulation, unless there was a supply constraint. However, scarcity of goods appears as the main cause of inflation in the retailer survey.

Table 4-7. Retailers Opinion as to Reason for Price Change

	Number	Percent
A lot of money circulating	9	20.9
Scarcity of products	15	34.9
Prices high at source	8	18.6
Increase in storage price	0	0
Transport costs	3	7.0
Other	8	18.6
Total	43	100.0

As Table 4-8 shows, it is interesting to note that of the 11 wholesalers that participated in the survey, nine of them (representing 82 percent of the sample) responded that they had not increased their prices as a result of the Resettlement Grant Activity. This fact does not necessarily imply that wholesalers did not increase prices for other reasons (e.g., supply shortages, increased transport costs, or even general price gouging not exclusive to the program), but it does reinforce the sense that in the event of price gouging, this was probably limited to local, informal traders and formal retailers. This finding is not surprising given the proximity and familiarity of local operators to the program; with their knowledge of the cash injection, they had a good perception of opportunistic gains to be made from it. Competition among wholesalers, and the fact that they know each other's costs and prices, also served to keep the inflationary impact low.

Table 4-8. Price Increase Due to the Grant Money

	Number	Percent
Yes	1	9.1
No	9	81.8
Don't Know	1	9.1
No Answer	0	0
Total	11	100.0

Evidence of stimulating the economies of villages and communities affected by the floods. As presented in Chapter 1, the floods of 2000 had a very significant negative economic impact on the country, severely affecting economic growth and interrupting the past buoyant growth trend. During 2000, the Mozambican economy as a whole grew by barely 1.6 percent, against double-digit rates achieved in previous years. Given an overall annual population growth estimated at 2.3 percent, this translates into a significant fall in GDP per capita during that year.

Table 4-9. Real GDP Growth, 1997-2001

	1997	1998	1999	2000	2001
Growth Rate	11.06%	12.05%	7.33%	1.60%	14.80%

Both the Government of Mozambique and the international donor community have widely recognized that post-flood reconstruction could not be limited to short-term emergency and famine relief, but should also encompass reconstruction efforts aimed at stimulating economic activity, rebuilding market infrastructures and, thus, attaining previous levels of economic performance. Evidence for 2001 suggests that this was successfully achieved, with GDP growth rate at its highest in recent years.

Evidence from the Survey. The results of the survey conducted in districts that benefited from the Resettlement Grant Activity provide some insightful evidence of the impact of this program in terms of stimulus to local economies. In particular, three aspects provide evidence – multiplier effects, recovery of distribution networks, and recovery of production capacity of local households.

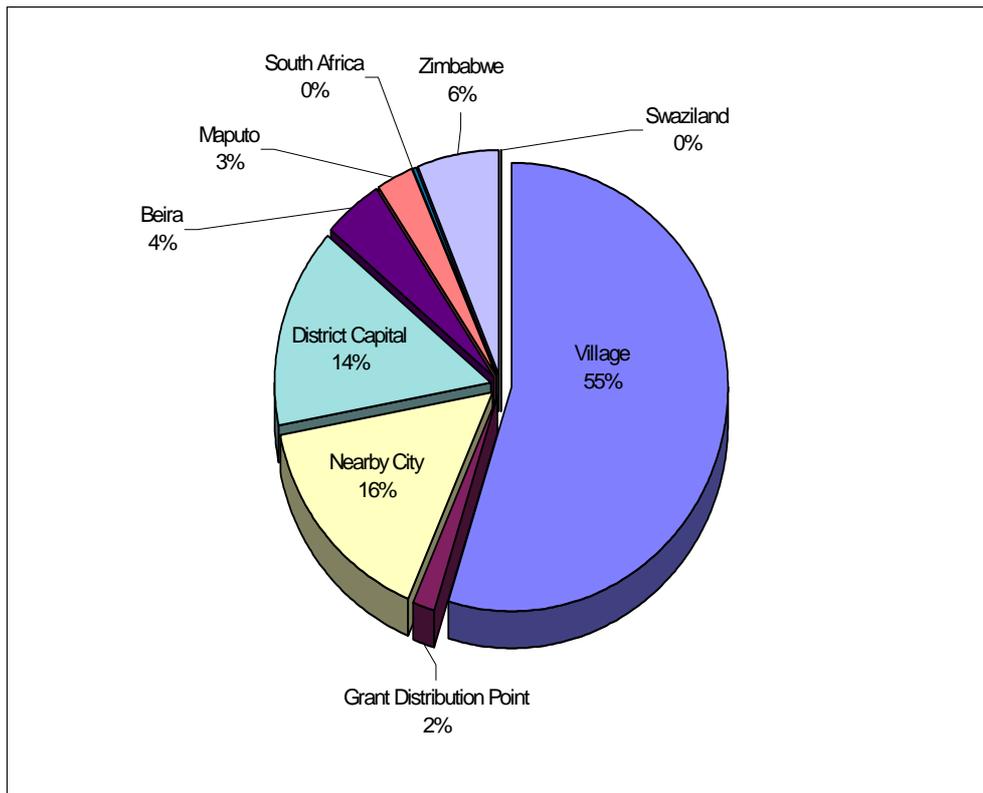
Indirect Demand Response-The Multiplier Effect. In order to fully assess the economic impact of Resettlement Grant Activity, it is necessary to explore the indirect effects it might have had through the multiplier effect¹¹, and investigate to what extent this effect remained within the local or regional economy.

A first step in this direction is to examine where purchases of goods by grant recipients took place. To this effect, Figure 4-2 shows the distribution of grant purchases by place where the money was spent. A significant amount of goods were

¹¹ In economic theory, the multiplier effect is the amount by which a change in autonomous expenditure (such as the one being analyzed here) is magnified or multiplied resulting in a more than proportional increase in spending.

purchased within the household's geographic region: 55 percent of purchases were done in their own village, two percent at the grant distribution point, 16 percent in a nearby locality and 14 percent in the district's capital. Overall, 87 percent of purchases took place within district perimeters. The remaining 13 percent of purchases either took place in the country's two main urban areas, Maputo and Beira, or in neighboring Zimbabwe.

Figure 4-2. Use of Grant, by Where Spent



These figures do not necessarily mean that goods purchased were locally or nationally produced, especially in the Mozambican case where a significant amount of consumption and investment goods are imported. Nonetheless, the figures show that, in a first stage, the program's money was spent mainly in local distribution points, and therefore remained in the region, stimulating sales, income gains, and job creation by store owners and their employees. This effect should not be undervalued given the evidence presented in previous sections regarding expenditure patterns of sample retailers.

There is some evidence that a significant part of the goods purchased by grant recipients were of Mozambican origin. According to retailers' responses, on average about 50 percent of purchases corresponded to domestically produced goods. However, this figure should be viewed with caution given that (a) it is the result of interviews held several months after grants were distributed, (b) only 55 of the 97

participating retailers responded to the question, and (c) the survey sample covers only a small proportion of potential purchasing channels used by households.

Although both these figures should be viewed with caution, they do point to the fact that a significant proportion of household expenditure was used in the purchase of domestically produced goods. A significant part of the grants was spent on purchases of goods – such as sugar, salt, cooking oil, soaps, livestock, pots and pans – for which there is a relatively competitive production capacity and supply in Mozambique.

Recovery of Distribution Networks. Similar to other developing countries, distribution networks play a key economic role in rural areas of Mozambique, connecting rural local economies to regional, national and international markets. In addition to providing consumption and investment goods to local households and production units, they are fundamental in the process of surplus commercialization both within and outside the region. Efficient distribution channels allow a better flow of goods in and out of the districts easing pressures on prices. The need therefore to recover these networks was widely acknowledged by the government and donor community as fundamental to the process of economic recovery. It should be noted that Mozambique's transport and marketing infrastructure was poor prior to the floods. Furthermore, it cannot be assumed that grant funds would have a direct impact on major infrastructure (e.g., roads, ports, etc.) reconstruction. Nonetheless, grant funds can help to stimulate the market chain and provide capital to traders by stimulating economic activity. It is this facet that will be investigated.

The evidence provided by interviews with local retailers suggests that a majority of them benefited from the Resettlement Grant Activity. Fully 70 percent of interviewees affirmed that their businesses had benefited from the program; 11 percent thought that the program had not affected their business. Most retailers thought that the money brought in by the program revitalized the local economy, stimulating business and improving the business environment from which they benefited through increases in their business sales.

Furthermore, it appears that the proceeds from the extra-business the program generated were mainly reinvested in enhancing business and distribution capacities, rather than on purchases of consumption goods or savings. As presented on Table 4-10, of the 64 retailers in the sample that agreed to give details of what they had done with the extra money earned from the Resettlement Grant Activity, 39 (equivalent to 60 percent) confirmed that they had used it to increase stocks, 28 percent used the extra money to buy new items for their stores, and in five cases the extra income had been used to open new shops. Although, 43 percent of interviewees responded that they had used this money to purchase personal items, in many cases such items consisted of investment goods for use in other productive activities, such as livestock (sheep, goats and pigs), farming material (farming equipment, seeds, etc.), repair of damaged equipment, and in one case the purchase of a pick-up van. In other cases, the extra income was used to rehabilitate the homes of local retailers, also affected by the floods, and to buy food to alleviate hunger. These aspects are discussed in further detail below in the context of possible multiplier effects.

Additionally, some local retailers were able to improve their creditworthiness as a result of the improved business environment, in the form of additional credit (as reported in six cases) and improved credit conditions (ten respondents).

The evidence provided by the survey suggests that the grant resettlement program contributed to the revitalization of distribution networks in affected areas and, to some degree, in enhancing them, via small investments in retailer establishments and complementary assets and increases in the number of operators. Thus, the extra income that trickled up to local retailers in the form of increased business allowed them to restock their stores, repair damages caused by the floods, and invest in other small improvements.

Table 4-10. Retailers Response as to What They Did With Money Earned

	Number of positive responses	Percent of positive responses
Bought items for the store	18	27.7
Increased stock	39	60.0
Saved money	5	7.7
Opened a new shop	5	7.7
Bought equipment	1	1.5
Bought personal items	28	43.1
Other	0	0.0
Number of respondents	65	100.0
Don't know	32	
Total Interviewees	97	

Overall, retailers have a positive perception of the Resettlement Grant Activity and might have helped to reduce price increases in these districts. Some of the interviewees that had witnessed or participated in other disaster relief programs based on direct food distribution (17 out of 97, albeit a small sample) were able to comment on both types of approaches. Nearly half of those (eight) thought that cash distribution had benefited more their business than direct food aid. Three others found no substantial differences in terms of how the two sets of approaches affected their businesses and only four held that the program had left them worse off than food aid programs.

Rebuilding Productive Capacity-Investing for the Future. Another crucial element in the process of economic recovery and business stimulation is the rehabilitation of local production capacities. The floods that affected central and southern Mozambique during the year 2000 not only affected crops and local harvests, reducing the

Box 5. Purchasing Patterns
Agricultural Needs

- *When choosing seeds, recipients purchased mostly sorghum, some maize and groundnut, but little vegetable, millet, or cowpea.*
- *Several recipients reported receiving seeds from other assistance programs.*
- *Those that spent grant funds on livestock bought mostly chickens and some goats, but few cows and pigs.*
- *Most expenditure for equipment was for agricultural implements; very little was spent on lanterns, bicycles, fishing lines, and batteries.*

availability of food crops in local communities, but also caused a great deal of damage to the productive infrastructure, reducing the ability of affected communities to provide themselves with a sustainable livelihood in the future.

In this respect, interviews held with family households and local retailers in areas that benefited from the Resettlement Grant Activity show that part of the program money that circulated in those districts was used, directly or indirectly, for the purchase of investment goods and/or improvement and repair of damaged assets (land, equipment, livestock, etc.). This suggests that beneficiaries allocated a significant part of the grant money to rebuilding productive capacity and investing for the future. For

Box 6. Grant Recipient Comments
Grants were used for future productive earnings.

- *The money was very good; I was able to open a business that I'm still running today.*
- *The money allowed me to open a fish business; I'm very happy with this.*
- *It helped me a lot because my husband was able to start a small carpentry business and it is this income that is helping us at home.*

example, according to retailers' accounts (Table 4-3), an important portion of beneficiary households' purchases went to purchases of equipment (six percent), the acquisition of seeds (five percent), and buying livestock (three percent). Furthermore, as shown on Table 4-4, households claim to have spent an average of 14 percent of the money on the purchase of livestock, nine percent on construction materials, eight percent on seeds, and four percent on acquiring equipment. Nonetheless, most of the grant went to purchases of food, acquisition of household goods and other consumption goods and clothes, presumably lost during the floods.

The increase in economic activity caused by the impact of the program also allowed

local retailers to undertake productive investments other than retail improvements with the extra revenue that was generated. These consisted of repairing damaged buildings and equipment such as tractors and other farm utensils. Some interviewees actually engaged in new farming and husbandry activities (four retailers claimed to have started cultivating a new field and two started raising goats and other animals). Finally, as has been pointed out above, retailers used much of the extra revenue indirectly generated by the program to restock their stores, repair flood related damages and upgrade and open new distribution facilities.

Constraints, Benefits, and Costs of the Program.

Program Constraints. Despite the fact that cash aid is infrequently used, there is growing donor interest in tackling post-emergency situations from the perspective of livelihood or household rehabilitation. Key concerns must still be addressed about the relative merits of this type of aid in the areas of:

- the effectiveness of the intervention (will sufficient goods be attracted to the market to satisfy beneficiary needs);
- the effects of the market (will the injection of cash exacerbate inflation); and
- the way beneficiaries elect to spend the money in the way intended. The option of cash-based programs has often been dismissed because of the underlying

assumption by donors that recipients of cash settlements are not capable of determining their best needs and interests, and will squander the money on goods that do not benefit the family. From the evidence of other programs (and indeed this program as well), however, this contention has been demonstrated to be completely unfounded. As mentioned previously, numerous studies on the coping strategies of famine victims, refugees and other vulnerable groups have confirmed that affected communities are more than capable of determining their best needs and interests.

The anticipated risk that money would be squandered by male household members on goods that would not directly benefit the household was made moot in the initial program design of the Resettlement Grant Activity. Female heads of household received the grant, and indeed, households reported that 20 percent of consumption was spent on food goods and of that amount only 1.5 percent was spent on alcohol.

The question of whether sufficient goods can be attracted to the market to satisfy beneficiary needs is crucial to the effectiveness of this type of program. In this case USAID addressed this issue by tackling supply side constraints in conjunction with providing cash to stimulate demand.

The question of whether this particular injection of cash exacerbated inflation cannot be directly answered, but from the analysis above on inflationary impacts, we can assume that this was not strongly the case.

Costs of Resettlement Grant Program. It has been demonstrated (Red Cross, 2000, p.28) that the transaction costs of cash distributions are substantially lower than those of commodity distribution. Overhead costs associated with food aid (handling, transport, storage and administration) on average range from 40 to 50 percent of the total aid provided. Cash, on the other hand, has a minimal transaction cost. As a result, the unit cost per beneficiary head is significantly less than commodity distribution. Importantly, less expenditure on overheads could mean beneficiaries receive a greater overall proportion of the money donated. Of course the reduction in transaction costs provides a significant benefit to the donor as their costs are also significantly reduced.

Given the complex logistics and security arrangements planned and implemented, the costs of identifying and registering flood victims and then distributing cash grants represented a reasonable portion of USAID's funds. The USAID/PMU contract for US\$3 million was to manage USAID's US\$32 million program (of which approximately US\$10 million was in grants to affected families and US\$22 million was in loans to affected enterprises). Implementation cost about ten percent of the value of the grants themselves, quite a reasonable portion, particularly when contrasted with the costs associated with food distribution.

It has been demonstrated that the transaction costs of cash distributions are substantially lower than those of goods distributions. Cash on the other hand has a minimal transaction cost. As a result, the unit cost per beneficiary head is significantly less than goods distribution. Importantly, less overhead costs generally mean that beneficiaries receive a greater overall proportion of the money donated; an analysis of costs in Geramider in northern Shoa, Ethiopia, estimated that in an

equivalent food distribution, the value of food received by beneficiaries would have been around 90 percent of the costs of the cash distribution (UNICEF, 1998).

Benefits of the Resettlement Grant Program vis-à-vis Other Programs. A positive aspect to this type of assistance relates to its consistency with the Mozambican Government's desire that flood reconstruction efforts would avoid significant deviations from the existing policy and reform agenda. In particular, emergency aid should have been in line with the shift from a supply-driven approach dominant in Mozambique during previous emergencies to a demand-driven approach involving effective community participation in making decisions (World Bank, 2001).

A further positive aspect of implementing this type of program concerns the benefits to the recipient economy of not receiving food aid from donor countries. Cash should also have less of a distortionary effect on the domestic food market. As demonstrated previously, cash can have certain stimulation effects on the market.

Lastly, we infer that the income transfer covered only a small portion of the nominal loss of income from the floods. The US\$92 cash grant per family represents roughly half of the yearly per capita income of the average Mozambican in the five affected provinces (see Table 4-11), but, depending on household size, represents a much smaller share of a family's income. Thus, the income lost during the floods (for up to six months) was only partially recovered by the cash transfer.

Table 4-11. GDP Per Capita, 1998

Province	GDP per capita (US\$)
Maputo	174
Inhambane	170
Manica	184
Sofala	306
Gaza	147
Average	196

Conclusions. The Resettlement Grant Activity was successful in achieving its objectives of implementing an efficient and effective alternative to traditional relief programs in terms of providing short-term social protection from income losses as a result of the floods. In addition, the evidence suggests that the program was to some degree successful in stimulating economic activity in the affected areas targeted by the program in the short term.

Food prices did increase substantially during and after the floods. However, the evidence suggests food inflation effects of the program were minor, given the clear tendency by households towards purchases other than food. Notably, food inflationary effects were greater in the northern markets, possibly reflecting their lack of proximity to the large and developed markets of Maputo and South Africa enjoyed by the southern markets. Most suppliers pointed to the scarcity of food as the prime reason for the increase in prices, and hence inflation, underscoring the importance of accompanying cash disbursement programs with other complementary programs to impact the supply side. Such programs would focus on direct food relief or through

improvement and rebuilding of distribution channels connecting the districts to food surplus regions or to international markets.

The survey results do not provide any conclusive evidence that there was detectable price gouging by local traders as a result of increased money in circulation or scarcity of goods.

In terms of the program's impact on economic stimulation, the results are quite favorable. The recovery of distribution networks appears positive. Most retailers that participated in the interviews believed that the money brought in through the program revitalized the local economy, stimulating business and improving the business environment from which they benefited from an increase in sales. The evidence provided by the survey suggests that the grants contributed to the revitalization of distribution networks in affected areas. To some degree, the grants also enhanced networks through small investments in retail establishments and complementary assets and increases in the number of operators.

The evidence of rebuilding productive capacity also demonstrates positive results given that in the areas where money circulated, it was used directly or indirectly for the purchase of investment goods and/or improvements and repairs to damaged assets (land, equipment, livestock, etc.). Moreover, since retailers used much of the extra revenue indirectly generated by the program to restock their stores, repair flood-related damages and upgrade and open new distribution facilities, the program had positive linkages for non-recipients of rebuilding productive capacity.

While it was impossible to quantify the multiplier effect, there were several signs of productive downstream spending of grant funds. The evidence, albeit not conclusive, points to the fact that a significant proportion of household expenditure was used for the purchase of domestically produced goods and, moreover, that the consumption goods purchased were for items for which there is a relatively competitive production capacity and supply in Mozambique.

A cash transfer program is an efficient and cost-effective way to impact affected people in a short amount of time.

It is difficult to measure the benefits of this type of program vis-à-vis other programs in the absence of available data. However, we have suggested that the program was in line with that of the Mozambican Government's development strategy and in some ways is an improvement over the traditional use of food distribution.

The program helped stabilize the affected households by providing them with income lost during the floods and positively empowered households to rebuild their own futures.

CHAPTER 5 CONCLUSIONS AND OBSERVATIONS

Overall Conclusions. The Resettlement Grant Activity was an important and effective program of humanitarian assistance with immediate economic impact in flood-affected villages. Although the Resettlement Grant Activity can more accurately be characterized as a “recovery” activity, rather than a “resettlement activity”, it was successful, clearly in assisting flood-affected families, and somewhat in reinvigorating the economy. The grants provided a life-saving safety net for some families, and contributed to the rebuilding of lives and incomes for most others. It allowed homes to be re-established, essential needs to be met, and productive, income-generating activities to be re-started.

Unavoidably, the program reinforced a sense of expectation by villagers that others may be depended upon for their survival.

A small number of eligible, affected families probably did not receive grants, and a small number of ineligible families probably did receive grants, a risk that USAID recognized it was taking. Those most severely affected by the floods, however, were assisted, and in the absence of the grant program, they certainly would have been worse off.

The fundamental principle of a cash grant program – that without any conditions attached, households would

Box 7. Grant Recipient Comments

Future assistance is expected.

- *It helped for purchases at home, but it would be good if they returned.*
- *We ask the entity that gave us cash to do it again because right now we are dying from the drought.*
- *I appreciate the help and hope that they come back to help us again.*
- *I really appreciate it and hope that they don't get tired of helping us.*

Box 8. Grant Recipient Comments

Cash is better utilized than commodities.

- *I appreciate the cash assistance because I bought what I needed at home.*
- *I appreciate it because it was cash that we didn't expect.*
- *I appreciate it and was very happy to get the cash because it was very important.*
- *I appreciate the cash because I had nothing.*
- *I'm happy to have received cash; I was able to buy what I needed; it was very important.*

make prudent use of the money – was confirmed. In general, the view that women manage the money, and choose the family priorities was also borne out. However, women in the more remote villages, often in polygamous marriages and in general subservient to the men, had less control over grant expenditures than other women.

Management. The program was effective at establishing eligibility criteria, identifying affected families, registering them, and ultimately distributing cash to them. Without any model upon which to base its planning, the PMU managed complex logistics and communicated directly with communities. The PMU and

USAID teams were very professional, with defined roles for many functions and a good information flow. Logistics and security were well managed. The distribution process was remarkably efficient. USAID was fortunate that the PMU had a very effective and efficient management team. The PMU leadership was instrumental in program success.

There were large information gaps among NGO/PVO lists of affected families. NGOs generally operate in more densely populated areas, while the floods affected the more remote areas where NGOs aren't present. Thus, compiling lists and registering victims was time-consuming and costly, but ultimately effective. The involvement of village chiefs and local administrators was vital to both beneficiary identification and ultimate distribution.

Timing. The uncertainty of when and how much money was going to be available by the US Government delayed planning and implementation. USAID's determination to expedite contracting and implementation was admirable.

The time lag had an unforeseen impact. While many programs were targeting the same flood-affected families, many victims grew disaffected with the meetings and registrations involved. Thus, by the time the PMU deployed its field teams, many potential beneficiaries were not interested in registering given their skepticism regarding future assistance. Also, due to the time taken to define the target group, grant distribution began (in Manica, in December 2000) before the target group was conclusively identified (in January/February 2001).

The time lag from the floods in February to the grant distribution in December had different impacts in different provinces. Inhambane, Sofala, and Manica provinces have one annual season of harvest, while Gaza and Maputo provinces have two. Thus, the grants were distributed in time for the second harvests in the south, and during the lean season in the north.

Costs. One of the single largest direct costs of project implementation was for vehicle rental. Vehicle purchase would have been substantially cheaper. Also, labor costs were higher than planned simply because of the time it took to identify and register flood victims according to proper criteria. Nevertheless, costs for program implementation – about ten percent of grant amount – appear quite reasonable.

Concurrent Activities. Two program objectives were not met, without apparent negative consequences. First, USAID sought to provide inventory credit to retailers so that they would have stock to sell; by the time any retailers received any credit, most grants had long been spent. In addition, most retailers did not need credit; they had excess and unsold inventory in stock. Second, USAID and the government sought to disseminate information to retailers so that they would be prepared for trade in districts where grants were to be distributed; grant recipients in many villages, however, were unable to make the purchases they wanted in the places they could get to.

Post-Emergency Strategies and Activities. As the Government of Mozambique and donors were providing life-saving assistance to flood victims, they also began to think about what kind of programs would be appropriate after the emergency assistance.

The cash distribution program ultimately implemented was one of several options considered. Among the issues considered were:

- family/household impact (to identify needs; replace lost goods and income)
- family composition (male/female; polygamous situations)
- economics (to restore jobs and production)
- availability of goods and services (location of commercial sector and traders; location of assistance)
- programmatic budget limitations (to maximize impact; numbers of people to be assisted)
- logistics and management (to develop a viable program)

Vouchers. One of USAID's first considerations was to use a voucher system in which cash vouchers or commodity vouchers would be distributed. Both were rejected. A cash voucher system would have been too easily abused. A commodity voucher system would have required an analysis to identify items most needed. There were concerns that a secondary market for vouchers would develop, negating their intent. In addition, relationships with shops and vendors would have to be established.

Commodities. A program of commodity distribution was a natural (and common) choice. USAID had such experience and distribution agents (particularly NGOs) seemed well located and prepared to implement.

Commodities would have to be identified, specified, ordered, delivered, and distributed. In the absence of sound analysis, the selection of which commodities to purchase and distribute would have been difficult. Delivery of commodities to remote locations would have been challenging, and some network of local organizations and small enterprises would have to be enlisted.

Most of the likely commodities would have to be imported; those on the local market would be very expensive. In any case, if commodities were provided, the program would be undercutting the private sector.

Credit. Providing credit directly to flood victims was not seriously considered; the flood victims were extremely poor, and unlikely ever to be able to repay a loan. Credit for viable businesses, however, to use to replenish and increase their inventory was regarded as an appropriate solution, but only if consumers had money to spend. Thus, ultimately the grant program converged with the inventory credit program and loan program.

Capital Projects. Traditional, but unsustainable, post-emergency assistance could have been programmed for replacing lost infrastructure and buildings (e.g., bridges, roads, schools). In fact, most donor assistance was targeted for such capital projects. The effective ones will have incorporated mechanisms into the projects to raise funds for operations and maintenance.

Cash. The advantages of a cash distribution program were several. It is fundamentally non-directive. That is, it relies on each household to make prudent

decisions. It avoids or at least minimizes opportunities for corruption. And, a cash program, with all its problems of security and logistics, is efficient.

Replicability. Cash grants have been effectively used following disasters in some countries, as presented in Table 5. The circumstances under which cash distribution programs may be appropriate following emergency disaster assistance vary, and issues that should be considered include:

- Alternatives – can NGOs or other institutions provide more appropriate assistance?
- Intent – are grants intended for recovery of homes and livelihood, that is, not intended to encourage behavioral changes (such as giving up arms)?
- Cost effectiveness – are implementation costs too high a proportion of total costs?
- Use of cash – are goods, services, land, etc. available for purchase?
- Consultation – are implementing institutions able to communicate and understand the needs of the affected population?
- Beneficiary identification – can affected victims be identified (or is virtually everyone a victim)?

Other Lessons. Important conclusions from the survey about the real needs of poor, rural villagers can be applied to the design of traditional development projects.

The grant activity had an unanticipated consequence. In the context of forming policy about Mozambican private sector participation and capacity, the program contributed to ideas about increasing local content in projects, about using local subcontractors, and about empowerment.

USAID is currently providing support for four emergency mitigation activities – the Famine Early Warning System Network, Improved Varieties of Sweet Potato and Cassava, Development of Mozambique Seed Protocol, and Regional Linkages. USAID should consider “disaster preparedness, prevention, and mitigation” as a new or crosscutting sector of focus.

The US Federal Emergency Management Agency’s grant-making program following natural disasters in the US provided an important model for USAID’s planning in Mozambique. US agencies should collaborate to identify other programs that provide lessons for development assistance, both in the US and in other countries. USAID and US domestic agencies would benefit from sharing development approaches.

Table 5-1. Comparisons of Circumstances in Cash-Grant Programs in Selected Country Disasters

Circumstances	Mozambique	Mozambique	Ethiopia	Ethiopia	Côte d'Ivoire	Cameroon	Chad
Disaster and rationale	floods, recovery assistance	post-war, demobilized soldiers, cash for arms	Food shortages	post-war, displaced families, deportees, families of deceased	Highway construction	pipeline construction in agricultural areas	oilfield and pipeline construction in agricultural areas
Location	remote	country-wide	Wollo		Restricted		
Population characteristics	poor, rural			rural, peasant	Shanty towns		
Definition of target group; ability to identify victims	definable, but difficult to identify	definable and identifiable			Definable along highway		
Cash provided	US\$97			US\$160-\$320			
Costs	US\$10 m						
Families assisted	106,000	470,000					
Use of cash	purchase goods and services	returning to farms	Purchase of goods and food		relocation; home construction	compensation for land	compensation for loss of crops
Implementation	managed effectively by USAID and PMU	direct government	Save the Children (UK)	direct government and World Bank		direct government and World Bank	direct government and World Bank
Ability to provide timely assistance	relatively timely	difficult	Effective				

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- | | |
|--------------------|--|
| No. 20 (07 Dec 00) | eligibility criteria |
| No. 21 (07 Dec 00) | implementation plan, first phase, Manica and Sofala provinces |
| No. 34 (21 Feb 01) | revised eligibility criteria |
| No. 35 (21 Feb 01) | implementation plan, second phase, Gaza province, some of Sofala |
| No. 36 (22 Mar 01) | implementation plan, final phase, Maputo province |

Annex 2. Persons Interviewed

Cynthia Rozell	Mission Director, USAID
Christine de Voest	Rural Enterprise Officer, USAID
Phillip Tonks	ER: ACT Activity Manager, USAID
Gale Rozell	USAID
Abdul Magid Osman	Presidente do Conselho de Administração Banco Comercial e de Investimentos (BCI)
Carlos Morgado	Ministro da Indústria e Comércio
Luis Eduardo Sitõe	Direcção de Relações Internacionais Ministério da Indústria e Comércio
Abdul Azim	Commercial Director, Universal Commercial (Wholesaler)
Carvalho Neves	Coordinator, Project Management Unit, Deloitte & Touche
Michele Gross	Resettlement Grants Coordinator, Project Management Unit, Deloitte & Touche
Sol de Carvalho	Project Manager, Promarte
Machado de Graça	Department Manager, Promedia
Jamú Hassan	Administrator, MOPAC, Sociedade Comercial e de Investimentos, Lda. (Wholesaler)
Riaz Merchant	Director, Operations, Ayul Trading Company (Wholesaler)

Annex 3. Evaluation Team

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Annex 4. Survey Estimates and Sampling

Precision of Survey Estimates. The estimates measuring the impact of the grant on households given in Chapter 1 are based on a sample of 630 grant recipients. The precision of these estimates will be stated in terms of the margin of error at 95 percent confidence level. The margin of error depends on the variance of the estimates.

As indicated in Chapter 1, the sample of recipients was formed by first selecting villages and then recipients within selected villages. Therefore, the sample of recipients is not a simple random sample but a clustered sample. The variance of the estimates based on a clustered sample is generally higher than under simple random sampling. The ratio of the variance of the estimates under the design to the variance under simple random sampling is called design effect. For this survey, we have assumed a design effect of 1.4. To assess the reliability of the estimates under the sampling design adopted for the survey, we first divide the sample size by the design effect to get an effective sample size. Using this sample size we determine the margin of error assuming simple random sampling. The effective sample size for this study is 455. The margin of error of the estimates based on grant recipients is calculated assuming a sample of 455.

Two types of estimates were produced based on the responses from the recipients. The first type is estimates of percentages of respondents saying “yes” or “no” to various types of questions. For example, what percentage of respondents lost homes and roofs? The second type is the percentage of total grant spent on various items, e.g., food, clothing, etc.

The margin of error of the estimates of characteristics which are measured by “yes” or “no” type responses depends on the estimated percentage and the sample size. For example, 85 percent of the recipients in the sample lost homes and roofs. A 95 percent confidence interval for the percentage of recipients who lost homes and roofs in the population of recipients is 85 plus or minus 3.3. That is, we are 95 percent confident that the percentage of recipients who lost homes and roofs is contained in the interval 81.7 percent to 88.3 percent. Similarly, we are 95 percent confident that the percentage of recipients who lost food and goods is 95 percent plus or minus 2.7. The interval is 92.3 percent to 97.7 percent. The margin of error for such percentages is around plus or minus three to five percentage points.

The precision of the estimates relating to percentage of the total grant spent on various items depends on the variability of this characteristic between recipients in addition to the sample size. For example, based on the data from all five provinces, we see that 10.2 percent of the grant was spent on food. If we assume that the range of the percentage of grant spent on food varies from 0 percent to 100 percent (maximum), then the margin of error for this percentage at 95 percent confidence level is plus or minus 1.5 percentage points. The other estimates of percentage of grant spent on various estimates have a similar margin of error or even better. Therefore, the numbers given in the tables are fairly precise.

Survey Sampling. The survey utilized a “systematic sampling” methodology. Like random sampling, systematic sampling is also a method of scientific sampling. In

simple random sampling (generally called random sampling), every person or household in the population has the same chance (probability) of being included in the sample. Also, since there are many possible samples that could have been selected, every possible sample has the same chance of being selected as our sample.

In systematic sampling also, every household or person has the same chance of being included in the sample but it is much easier and simpler to implement. An example of systematic sampling follows:

Suppose we have a population of 100 households. We want to select ten households. First, we compute a sampling interval which is equal to the population size divided by the sample size. In our example, this is $100/10 = 10$. We select a random number between 1 and 10, say 4. We select the 4th household on the list and every 10th household thereafter. Therefore, the households selected in the sample are the households which are 4th, 14th, 24th, 34th, 44th, 54th, 64th, 74th, 84th and 94th household on the list.

If the random start was 8, then we would have selected the 8th household, 18th household, 28th household, etc., on the list, the last one being the 98th household.

In summary, systematic sampling is a method of sampling in which the first unit on the list is selected at random and then every k th unit thereafter where " k " is the sampling interval which is the ratio of the population size to sample size.