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World Relief "Seeds of Hope" Project

Final Report for the Office of Foreign Disaster Assistance (OFDA)

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I. Executive Summary

Southern Mozambique, particularly Gaza Province, endured three separate, weather-related catastrophes in February, 2000. On 5 and 6 February, southern Mozambique was deluged with record rainfall that abruptly displaced thousands of people from their homes. On 22 February, Cyclone Eline struck neighboring Inhambane Province producing heavy rains inland as far as Zimbabwe. Three days later, Zimbabwean authorities opened sluice gates on the Save River, releasing a two-meter bore downriver into Mozambique.

Simultaneously, a head of water surged down the Limpopo River through the Zimbabwe-South Africa border into Gaza Province. The low-lying plains in Gaza were inundated. Floodwaters reportedly stretched 60 kilometers on either side of the Limpopo River at the height of the disaster. When the water receded, the Government of Mozambique's estimate was that 500 people drowned when they were unable to reach treetops, rooftops or higher ground. Most houses in the Gaza village of Chokwe were swept away or collapsed. These residents lost their crops, houses and domestic assets.

On 21 March, World Relief Mozambique received financing from the U.S. Office of Foreign Disaster Assistance (OFDA) and on 29 March began "Seeds of Hope," an agricultural seeds and tools distribution program. The program was developed to help restore some of the agricultural livelihood of Gaza Province families in the districts of Chokwe, Guija and Mabalane. The program was later

expanded to include more than 8,000 additional families in the districts of Chicualacuala and Massengena.

In the end, World Relief distributed a total of 34,227 agricultural packs (seeds and tools). This distribution took place in more than 53 different villages in Gaza Province. The elements of this \$1,000,000 (USD) operation included the procurement, transport, wholesale distribution and final delivery of the seeds and tools to the recipient families through a series of transport including ground, rail, air and sea. The primary funding for the program was the grant of \$700,000 (USD) from the OFDA. However, World Relief also developed partnerships with other charitable organizations and NGO's who had an interest in contributing to the seeds and tools program. Through these partnerships, an additional \$300,000 (USD) was contributed to the program.

The initial estimate for completion of the project was 31 March, however, limiting environmental, procurement, and weather factors as well as the program expansion by OFDA to two additional districts brought the project to completion only on 11 May 2000.

Early indications from a final evaluation that is taking place at this time are favorable as maize yields are plentiful due to the substantial subsoil moisture and silt deposited by the floods.

II. Introduction and General Background: World Relief Mozambique

World Relief Mozambique has implemented child survival and micro-enterprise (water, agriculture, and credit) programs in Gaza Province. World Relief's strategic advantage is ten years of work in the province that has resulted in 'care networks' and contacts in virtually every village. It is the largest and most far-reaching of the NGO's in the area with an extensive infrastructure.

Child Survival Network

World Relief has been operating in Gaza Province, Mozambique for over 10 years. Between 1994 and 1998, World Relief conducted a USAID funded Child Survival project (Vurhonga – Shangaan for "dawn") in Guija district and in 1999 began implementing a second CS project ("Vurhonga II") in Chokwe district.

In these projects volunteers and "animators" (community educators that use traditional forms of creative communication to teach and provide information to beneficiaries) of Chokwe, Guija and neighboring Mabalane districts are able to reach 39 villages (37,000 mothers and children) through a program that utilizes over 1500 local volunteers.

Fundo Credito Comunitario

World Relief also operates a community-banking program, the Fundo Credito Comunitario (FCC), a micro-enterprise credit program that reaches 4,000 beneficiaries in Gaza Province. During the period of 1994-1998, World Relief also completed an agricultural and livestock project in the region. The field office for these activities is located in Chokwe town, and World Relief consequently has a vast network of relationships and contacts throughout the villages in the region.

III. Seeds of Hope Project

Project Description

OFDA initially approved the proposal to fund delivery of agricultural packs to 26,260 families in three affected districts of Gaza Province on 21 March, 2000. For this project, "Seeds of Hope", World Relief purchased seeds and tools for the benefit of each recipient family creating an agricultural pack consisting of: 10kg of maize; 3kg of beans; a 50g bundle of vegetable seeds; two hoes; one machete; and one axe-head. Delivery was originally scheduled for completion by the end of March, using transportation assets in the country. The seeds and tools distribution was intended to cover, but wouldn't be restricted to, the rural areas in which the Child Survival Programs operate.

Due to the revealed crisis of further suffering and devastation in Gaza Province beyond the initial area of coverage, the program was expanded by the OFDA and World Relief to reach families in Chicualacuala and Massengena as well.

Goal

World Relief is committed to long-term sustainable development initiatives in all of its international projects. World Relief also recognizes that all relief efforts have an impact on future development, be it positive or negative. In light of this, the initiative was designed to be a developmental-minded relief effort. It was one that would not exacerbate dependency issues but would seek to establish long-term self-reliance and participation in self-recovery efforts. By providing seeds and tools to villagers in Gaza, “Seeds of Hope” contributed to the well being of participants without creating a sense of helplessness and dependency among them. This also helped to maintain the foundation of participatory and sustainable development established by past and present World Relief projects in Gaza.

Structure and Implementation

Logistics

World Relief procured a total of 604 MT of seed from SEEDCO of Harare, Zimbabwe, 1.6 MT of assorted vegetable seed from its subsidiary SEMOC of Maputo, and 5.0MT of vegetable seed from Agro Alpha of South Africa. An initial shipment of 334 MT was required at the primary warehouse in the village of Chokwe, located just to the south of the Limpopo River, to support Phase I of the

distribution. The Orli warehouse in Chokwe had been flooded by three meters of water less than a month prior to the beginning of the operation, however, it was made ready for use by the owners for the benefit of the community of Chokwe.

From there, the agricultural packs were primarily distributed by road on mid-size trucks and 4X4 vehicles from the primary warehouse in Chokwe. The trucks were loaded daily with amounts required for each village going to as many three villages per day. This process was repeated regularly and often in the worst weather conditions. At times the rain was so heavy that trucks could not pass through the heavy mud surrounding the once-flooded warehouse with their loads. However, with the help of local workers, sheer physical labor was used to pull these 4X4 and 6X4 trucks onto the road.

(See Appendix A – 1)

As the first shipments materialized and were transported to the Chokwe location, World Relief was able to make a second purchase of seeds. World Relief with the cooperation of OFDA developed an initiative to bring the first locomotive train into Gaza province from Zimbabwe in four months. Carrying approximately 175.5 MT of seed from the supplier in Harare to a warehouse in Chicualacuala was a difficult, but most efficient means of moving a large shipment to this area of Gaza Province. Except for remote areas of the Guija district that were supported by a helicopter airlift from Chokwe, this shipment supported the entire

distribution of seeds into all the areas north of the Limpopo River in Gaza province. Warehouses in the villages of Chinhacanine, Mabalane, Mapai and Massengena were used to provide a means short-range distribution in those districts. Local personnel and trucks were hired to support distribution because outside of the districts of Mabalane and Guija, World Relief no longer has operating staff. Nevertheless, familiarity with the local area and people was absolutely essential.

(See Appendix A - 2)

The final procurement of seeds (101 MT) was received into Mozambique from Harare via trucks through South Africa entering Mozambique through Maputo in the South. This supplementary shipment provided seeds and tools for partners of World Relief operating in Guija, Chibuto, and Bilene districts and other southern Mozambican Provinces that wished to participate in providing seeds and tools to flood-affected recipients.

(See Appendix A – 3)

Phase I Operations

The World Relief Child Survival and FCC program provided 35 local staff to work as the conduit for the distribution of seeds. Through relationships established

within these programs, the people of Chokwe district were familiar with the local staff, making for an effective registration of beneficiaries. However, most of these local staff lost their homes and possessions in the floods, too.

Distribution to the families in the Chokwe district was successfully accomplished with the aid of the “animators”. In this network, every recipient family is part of a care group of ten families served by a volunteer (who serves as a distributor) who is in turn supervised by one the staff. Villages were notified of distribution times and amounts, and the staff maintained the lists of family names and made certain that the kits were fairly and evenly distributed.

Five warehouses were maintained, one each in Chinhacanine, Mabalane, Mapai and Massengena to serve the four districts north of the Limpopo River. The primary warehouse was maintained in Chokwe. This provided inventory for villages south of the Limpopo River as well as isolated areas requiring delivery by helicopter.

(See Appendix B – 1)

Phase II Operations

Distribution in the remaining districts was also successfully accomplished, but, with the effort of hired local resources, and the partnership of other local NGO's.

The organization of shipments was arranged so as to allow for the direct delivery of 175 tons of seeds from Zimbabwe to Chicualacuala (Mapai warehouse) and on to Chinhacanine, Mabalane and Massengena. This greatly facilitated the ease with which kits could be distributed, since it was then unnecessary to airlift or ferry the seed across the river.

(See Appendix B-2)

Preliminary Evaluation

From 22 May through 9 June, World Relief personnel and local staff began conducting an evaluation of the results of the Seeds and Tools Program.

The interviews were performed randomly by selecting respondents from the farmer registration lists prepared by the animators for seeds and tools distributions.

World Relief was particularly interested in the early distributions finished by 7 April in the Gaza Province as a number of factors may have impacted the benefit of the program.

These would include the fact that some people participated in multiple food distributions by different agencies and/or NGO's prior to the distribution of seed

by World Relief. There were also some beneficiaries who lived away from the river in high areas that did not lose their crop or had not yet planted and therefore did not need a seed distribution.

Other beneficiaries living close to the river or in isolated areas on the other hand did not receive a food distribution but had to sustain themselves by borrowing, buying, and working other farms to survive and therefore may have eaten the seed immediately to sustain themselves.

After conducting 61 interviews with recipients in the Chokwe district from the villages of Muzumuia, Matuba, Machel and Hlate, the initial impressions were that the program was extremely well executed. The local beneficiaries were very pleased with World Relief's work and the assistance they received.

In the Guija district, north of the Limpopo River, an additional thirty-nine random interviews were conducted in four villages of Nhatsine, Chinhacanine, 7 de Abril, Guija Sede, to investigate the later distributions of April 24-28. Interviewers found that the matuba maize, sugar beans, and cowpeas were planted and growing well, the maize approximately 1 meter high. Overall the farmers were very pleased with the project and grateful. People were using and sharing the tools amongst themselves. They commented that the distribution was successful and effective.

It was initially assumed that seeds planted after April 15th would be under-utilized, as some villages in Chokwe received seeds considerably later than others, and Guija received even later than Chokwe. But, an unexpected benefit of the flood is that the soil structure in many areas was improved by fresh soil that flowed downstream. It was discovered that as of 9 June beneficiaries were still planting seeds that had been saved. They were the recipients of the earliest seed distribution in Chokwe.

Another benefit has been in patches of arid land in Chokwe district that allowed the recipients to wait longer and plant in increments as soil moisture became optimal. This is the case for a number of areas that are still ripe for planting because the sandy soil structure of this area has retained optimal moisture even into the winter. The same could be said about areas where the soil has higher clay content because clay retains moisture longer. However, some areas have been adversely affected with too much water, thus preventing planting because clay retains water.

An observation was made when cowpeas were not distributed in the villages of Muzumuia, Matuba, and Machel due to procurement difficulties. When cowpeas were finally available for these isolated regions, it was deemed too late to plant in this area and the beneficiaries received extra amounts of sugar beans instead. It now appears that cowpeas may have been over-distributed anyway. The problem appears to be that the season is not conducive to the harvesting of

cowpeas, as cowpeas require heat to mature. Because of the cool season no beans are produced, only leaves. Distribution of the cowpeas seemed to have caused some initial hesitation because the beneficiaries couldn't figure out whether to plant the seed immediately with the hopes of harvesting the leaves for food, save the seeds to plant later in the spring planting season, or use the seeds for food. Some planted a small amount to see if it would germinate, saving the rest as a reserve for future use in planting or eating.

An additional observation appears to be that many beneficiaries who lost their crops but not their homes had preserved their own local varieties of maize. They were able to plant these varieties first, and supplemented their crop primarily with sugar beans, and to a lesser extent the Matuba maize and cowpeas.

Challenges

The primary issue of distribution in the Gaza province is the absence of direct and accessible road through much of the affected area. Many roads were cut off due to the flooding and a direct route to the central warehouse from Harare was not available.

Initially, the program document stipulated that the SEEDCO seeds would be delivered from Harare into Beira. Air transport provided by US Air Force C-130's moved approximately 140MT of seed from the Beira airport to Maputo. The 6.6MT of vegetable seeds were transported directly to the warehouse in Chokwe by ground transport as soon as the road opened. However, due to the capacity and cost constraints of the aircraft, it was decided that alternative transport was required. The remaining tonnage was then moved to Maputo by cargo ship from the Port of Beira. From there, a fleet of trucks organized by Servir Mocambique, a local transport and logistics agency, moved these seeds to the Orli warehouse in Chokwe.

A major difficulty was actually getting aid to areas that were extremely isolated by flooding. The floods destroyed much of the infrastructure in the south of Gaza and it was no easy task reaching isolated villages to distribute the seeds and tools. The major bridge crossing the Limpopo River near Chokwe, in addition to some remote roads, were greatly damaged and rendered unusable.

As a result, in the isolated areas south of the river, helicopters provided primarily by elements tasked to the UN Joint Logistics Operations Command (JLOC) were used to deliver seeds to these villages. The atmosphere surrounding the tasking of these assets can be described as highly competitive as the aircraft were used to provide support to simultaneous aid operations including food distribution,

seeds and tools, medical support and personnel transport of other non-governmental operations.

A recurring difficulty for the pilots of these aircraft was actually finding remote villages. More often than not, small villages are not registered on maps and as a result no global positioning system (GPS) coordinates are pre-plotted for navigation. The only way to find these locations was to rely on vague directions given by local people. This presented the risk of an aircraft running low on fuel during an inclement weather mission.

Impacts

The people in the affected areas expressed early on that their first priority after immediate survival would be to replant their fields that had been washed away. Had replanting not taken place, the humanitarian crisis and the need for food aid would be prolonged well into the next planting season. Since the farmers were able to replant while there was still sufficient water in the ground, food aid will not be necessary for an extended a period of time.

The local World Relief staff, normally involved with the Community Banks and Child Survival Projects, was able to effectively and expeditiously carry out the distribution of the seeds in the area. This was despite their own loss of homes, personal property, and livelihood. Already well known and trusted by the

communities, the stature of the local staff was clearly increased within their communities.

IV. Conclusion

If World Relief is given an opportunity for self-evaluation, the program would be rated an overall success based on the fact that the community was able to return to its former livelihood and to again participate in sustainable development projects in Gaza.

To that end, the 16 May issue of “Noticias”, the premier newspaper in Mozambique, hailed the collaborative efforts of OFDA and World Relief as successful and dramatic. Recognized as leaders in the agricultural relief efforts, both organizations were lauded for the comprehensive seed and tool program that reached these five districts and met the needs of these rural communities.

World Relief will continue to work in the community to rebuild the livelihoods of families because the sheer devastation of the floods has left the community in a period of long-term rebuilding.

V. Appendices

Initial Shipment for Phase I Distribution

Note: All amounts in actual USD

Committed Cost of Commodities

Note: All numbers for commodities reflect actual commitments or expenditures, based on agreements with vendors

	First Shipment				
	Kilograms / Pack	Metric Tons/ Total Packs	Unit Price (per kg)	Cost / Pack	Total Cost for All Packs
Maize (Seed Co. Zimbabwe)	10.00	249.10	0.50	5.04	125,508.39
Cowpeas (Seed Co. Zimbabwe)	3.00	78.78	0.86	2.59	68,132.68
Lettuce seed (SEMOC)	0.01	0.26	47.10	0.47	12,368.46
Tomato seed (SEMOC)	0.01	0.26	76.00	0.76	19,957.60
Onion seed (SEMOC)	0.01	0.26	54.00	0.54	14,180.40
Kale seed (SEMOC)	0.01	0.26	44.00	0.44	11,554.40
Squash seed (SEMOC)	0.01	0.05	24.00	0.24	1,200.00
Sugar beans (SEMOC)	3.00	5.00	1.41	4.22	7,030.80
Pumpkin seed (Agro Alfa)	0.01	0.05	38.00	0.38	1,900.00
Subtotal Seeds	16.05	333.98	247.88	14.30	261,832.73
Hoes (Afrertools)	2.20	114.40	1.80	3.60	93,600.00
Machete (Agro Alpha)	0.79	14.25	1.25	1.25	22,500.00
Ax (Agro Alpha)	1.80	1.80	2.25	2.25	2,250.00
Hoes (Golden Resources)		2753.00		2.45	6,744.85
Subtotal Tools	4.79	130.45	5.30	7.10	125,094.85
Total Seeds and Tools	20.84	464.43	\$ 253.18	\$ 21.40	\$ 386,927.58

Secondary Shipment for Phase II Distribution

Note: All amounts in actual USD

Committed Cost of Commodities

Note: All numbers for commodities reflect actual commitments or expenditures, based on agreements with vendors

	Phase II Shipment				
	Kilograms/ Pack	Metric Tons/ Total Packs	Unit Price (per kg)	Cost / Pack	Total Cost for All Packs
Maize (Seed Co. Zimbabwe)	10.00	103.00	0.55	5.49	56,547.00
Cowpeas (Seed Co. Zimbabwe)	3.00	36.00	0.91	2.73	32,760.00
Lettuce seed (SEMOC)	0.01	0.12	43.42	0.43	5,210.29
Tomato seed (SEMOC)	0.01	0.12	74.42	0.74	8,930.29
Onion seed (SEMOC)	0.01	0.10	43.42	0.43	4,124.81
Onion seed (SEMOC)	0.01	0.03	49.42	0.49	1,235.48
Kale Seed (SEMOC)	0.01	0.12	41.42	0.41	4,970.29
Vegetable seed (SEMOC)	25.00	0.05	23.42	585.48	1,170.96
Sugar beans (Seed Co. Zimbabwe)	3.00	36.00	1.26	3.77	45,180.00
Subtotal Seeds	41.05	175.53	278.23	599.98	160,129.12
Machetes (Townsend International)	0.44	3.08	1.04	1.04	7,308.00
Hoes (Townsend International)	1.10	15.40	1.81	1.81	25,340.00
Files (Townsend International)	0.40	0.40	0.93	0.93	3,720.00
Subtotal Tools	1.54	18.88	3.78	3.78	36,368.00
Total Seeds and Tools	42.59	194.41	\$ 282.01	\$ 603.77	\$ 196,497.12

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Final Shipment of Seeds

Note: All amounts in actual USD

Committed Cost of Commodities

Note: All numbers for commodities reflect actual commitments or expenditures, based on agreements with vendors

Supplemental Shipment

	Kilograms/ Pack	Metric Tons/ Total Packs	Unit Price (per kg)	Cost / Pack	Total Cost for All Packs
Maize (Seed Co. Zimbabwe)	10.0	13.5	0.50	5.05	6,814.84
Cowpeas (Seed Co. Zimbabwe)	3.0	13.8	0.87	2.60	11,922.10
Bonus beans (Seed Co. Zimbabwe)	3.0	60.0	1.35	4.06	81,120.00
Cowpeas (Seed Co. Zimbabwe)	3.0	13.8	0.81	2.42	11,084.85
Total Seeds	19.0	101.0	\$ 3.53	\$ 14.12	\$110,941.79

**Phase I Distribution
Chokwe District**

1	Machua	340
2	Soveia	111
3	Machinho	614
4	JoJo	240
5	Majajamela	219
6	25 de Setembro	576
7	Hlate	583
8	Manjangue	803
9	Managanine	142

10	Barragem	760
11	Manganguene	647
12	Candissa	86
13	Cumba	172
14	Matuba	627
15	Muzumia	474
16	Bombofo	405
17	Massavasse	960
18	Muianga	589

19	Conhane	768
20	Cotswane	488
21	Nwaxicoluane	983
22	Duavaio	190
23	Guidiza	103
24	Inchovane	447
25	Mhlazene	869
26	Xilembene	1015
27	Marrambajane	693
28	Chiguidela	976

29	Chalucuane	1634
30	Chiduachine	850
31	Zuza	657
32	Macunene	676
33	Mapapa	420
34	Xiaquelane	878
35	Xinangue	460
36	Machel	897
37	Cocovela	103
38	Hlelene	180

TOTAL: 21635

Phase II and Supplemental Distribution

Chicualacuala Dist.	#Families
1 Chale (A)	134
2 Chale (B)	42
3 Voga	18
4 Chicualacuala Rio	16
5 Chissapa	102
6 Muzamane	65
7 Hassane	76
8 Ngala	81
9 Mupuzi Rio (A)	151
10 Mupuzi Rio (B)	57
11 Buela	105
12 Mapuvule	63
13 Macuchane (A)	78
14 Macuchane (B)	92
15 Chilimane	124
16 Marule	23
17 Chicumbane	131
18 Chine	61
19 Liscussa	64
20 Chipelnane	57
21 Nwamavike	40
22 Maringa	28
23 Panhane	82
24 Ndombe	106
25 Ligoma	110
TOTAL: 1906	

Guija District	# Families
1 Acordos de Lusaka	554
2 Chibabel	554
3 Sifo	400
4 Chimbonguene	400
5 Nhampunguane	400
6 7 de Abril	400
7 Tomanine	400
8 Mbanguene	537
9 Guija Town	143
10 Chinhacanine	1054
11 Ndonga	1071
12 Pumbe	211
13 Mpelane	791
14 Nyatsine	221
TOTAL: 7136	

Mabalane District	#Families
1 Pfuke	351
2 Tsokate	177
3 Chinhequete	152
4 Machava	105
5 Nkovela	69
6 Mabalane Town	622
7 Matidze	103
8 Chipswane	114
9 Mabomo	96
10 Combomune Rio	144
11 Nhoni	61
12 Jasse	64
13 Macarale	57
14 Hoyo Hoyo	95
TOTAL: 2210	

Massengena District	# Families
Massengena	221
TOTAL: 221	

Mapai District	#Families
1 1.Chiculo	200
2 2.Mapungane	100
3 3.Zinhane	300
TOTAL: 600	

Supplemental Shipment*	
Chokwe District	
1 1.Ntlawene	220
2 2.Duvane	160
3 3.Hlanguane	175
TOTAL: 555	

Total Distribution:	
Phase II Total	12037
Supplemental Total*	555
TOTAL	12592

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