

World Vision Relief and Development, Inc.

Somalia Program

Somalia Emergency Response Grant Final Report
OFDA Grant # 968-1032-G-00-2006-00
Grant Period: September 24, 1992 - March 31, 1995

August 30, 1995

I. Purpose of the Grant

WVRD's program goal in Somalia was to reduce the level of suffering and promote a return to a normal way of life for the targeted communities of Bur Hakaba district in the Bay Region of Somalia. OFDA contributed to this goal with its support for food security and primary health care initiatives. The food security program integrated agricultural activities such as agpack distributions, seed multiplication, and improved cropping practices, with ongoing food programming to promote food self sufficiency among the targeted population. The goal of the health program was designed to decrease the mortality and morbidity rate of the targeted population through mobile health services, health worker training, and expanded vaccination programs (EPI).

II. Scope of Work

Original Grant (September 24, 1992 to September 30, 1993):

1. Identify and establish feeding center sites, next to ICRC kitchens where possible, by working with local authorities, NGOs and donors, and prepare the logistics required for this program.
2. Feed each child enrolled in a feeding center 100 grams of unimix three times daily and send 200-300 grams of dry unimix home with the child to share with their siblings.
3. Maintain nutritional progress records for each child who enters a feeding center.
4. Prepare and distribute agpacks for 25,000 farming families before the Gu rainy season in March 1993. Each agpak will contain: 15 kg of grain seed (sorghum, millet, or maize), 2 kg of peanut/cowpea seed, 0.5 kg of vegetable seed, and 2 hoes.

Amendment 1:

No change in programmatic objectives.

Amendment 2 (October 1, 1993 to September 30, 1994):

1. Distribute 28,000 agricultural tools and 160 MT of seeds to 10,000 families in Bur Hakaba district for the 1994 Gu and Deyr seasons.
2. Conduct monthly food distributions from October 1993 to August 1994, targeting 5,000 beneficiaries per month with a ration of 10 kg per month.
3. Stimulate the local economy through the local purchase of 1,500 MT of local sorghum, up to 132 MT of local seeds and 24,000 locally manufactured tools for use in the seeds and tools distributions.
4. Continue the implementation of EPI, with the aim that 50 percent of children under five years of age will complete the immunization program, and 40 percent of pregnant and lactating women will receive at least two doses of tetanus toxoid.
5. Continue to provide medical treatment, focusing on maternal child health, through the services of the mobile health clinic which will visit up to 20 villages that are outside the health network.
6. Facilitate the establishment and structure of 30 village-based health posts and health committees.
7. Distribute 3,000 resettlement packs to needy families as identified by village elders. The resettlement packs will consist of one four-meter-squared piece of plastic, three blankets, three pieces of traditional clothing, two cooking pots with lids, one large enamel tray, two bowls, five cups, one water jug and one locally manufactured kitchen knife.

Amendment 3 (October 1, 1994 to March 31, 1995):

1. WVRD will identify a basic set of crop management practices to improve local yields of sorghum, cowpea, and mung bean.
2. WVRD will evaluate, select, purchase and multiply 10 MT of local sorghum, cowpea,

and mung bean seed.

3. WVRD will distribute agricultural packs containing sorghum, cowpea, and mung bean seed, one hoe, and one shovel to 4,000 families.
4. WVRD will continue to implement EPI activities with the aim that 50 percent of children under five will complete the immunization program and 40 percent of pregnant and lactating women will receive at least two doses of tetanus toxoid.
5. WVRD will conduct intensive training courses for community health workers (CHWs) and traditional birth attendants (TBAs).

Amendment 4:

No change in programmatic objectives.

III. Executive Summary

World Vision began operations in the Bay Region of southern Somalia in September 1992 in response to the unprecedented level of suffering which occurred following the fall of the Siad Barre regime in 1991. With the breakdown of the central government, virtually all governmental, economic, communication and agricultural systems collapsed. In its place emerged warlords and armed bandits who wreaked havoc throughout Somalia. The systematic looting of the countryside by clan gunmen, coupled with drought and the breakdown of economic structures and traditional coping mechanisms, created a massive movement of displaced persons into the cities and across the border into Kenya in search of food and security. At the height of the resulting famine, massive starvation threatened the lives of an estimated 1.5 million people. Somalia, in October 1992, suffered the highest recorded mortality rate in history.

World Vision first began its operations in Baidoa, known in 1992 as the "City of Death." At the famine's peak in October 1992, nearly 300 persons died daily in its streets. While setting up its logistical base in Baidoa for security purposes, World Vision chose to work in the Baidoa-Buur Hakaba corridor because of the great needs in the area and the lack of existing relief assistance there.

In the first year of operations, six feeding centers were opened (two in Baidoa) to feed, at its peak, nearly 2,000 severely malnourished children daily. Over 7,000 children were admitted into WV feeding centers during their nine months of operations. With support from Food

for Peace, WV also began general food distributions in the Bur Hakaba area beginning in December 1992. Over 2,600 MT of sorghum, 373 MT of rice, and 367 MT of unimix were distributed during FY 93. To help resettle displaced persons as quickly as possible, a complementary seeds and tools program was also initiated to provide nearly 7,000 families with necessary "start-up" seeds and agricultural implements. Another 2,160 families received "rehabilitation packs" containing blankets, cooking pots and dishes, and other household goods for resettlement.

As the world watched the horrific events unfolding in Somalia, the United Nations was spurred to action. In December 1992, the UN Security Council agreed to intervene militarily by committing 30,000 US-led troops into the region. The UN mandate was to create a secure environment for the delivery of humanitarian relief.

With the presence of UN troops in the Bay region, security improved dramatically. By FY 94, World Vision operations shifted decidedly from relief to rehabilitation. Food programmed in FY 94 was half of its 1993 levels, with a significant portion focused on food for work activities. Over 10,000 families received seeds and tools packs in FY 94, benefitting up to 50,000 people. Another 7,500 families were assisted with resettlement items which included blankets, plastic sheeting, and cooking utensils. In FY 94, the Office of Foreign Disaster Assistance (OFDA) also began its support of WV health activities in the areas of EPI (Expanded Program for Immunization) and mobile health clinics.

In February 1994, WV operations in Somalia were significantly scaled back when a bomb ripped through the WV compound in Baidoa, critically wounding a WV nurse. Immediately following this incident, all expatriate staff evacuated to Kenya. From February 1994 to the present, the Somalia program has been run by nationals, with limited but effective oversight by management and technical staff based in Nairobi.

Because of the bombing incident and the subsequent scaling down of relief activities and expatriate personnel, WV Somalia had to make significant programmatic re-adjustments. At the onset of FY 95, the Somalia program focussed on five activities: 1. the identification of a basic set of crop management practices; 2. the evaluation, selection, purchase and multiplication of 10 MT of sorghum, cowpea, and mung bean seed; 3. the distribution of agpacks to 4,000 families; and 4. the continued support of nine village health posts, the EPI program, and the training of community health workers (CHWs) and traditional birth attendants (TBAs).

By March 1995, WV Somalia was able to phase out OFDA assistance for its Somalia program.

IV. Main Accomplishments

Original Grant (September 24, 1992 to September 30, 1993):

1. *Identify and establish feeding center sites, next to ICRC kitchens where possible, by working with local authorities, NGOs and donors, and prepare the logistics required for this program.*

World Vision's initial interventions in the Bay Region included the opening and operation of six therapeutic feeding centers. Bur Hakaba and Doynunney feeding centers opened in September 1992, Rowlo and Bridge feeding centers opened in October 1992, with Harte Qaanle and Dacar feeding centers beginning in November 1992.

October 1992 was the busiest month in the feeding centers with a peak average daily attendance of 1,982 at four feeding centers. A total of 7,038 patients were admitted into the six feeding centers over the nine months of operation.

Table 1: Feeding Center Opening and Closing Dates (FY 92-93)

Feeding Center	Opened	Closed	Duration
Bur Hakaba	09/22/92	04/29/93	7 months
Doynunney	09/25/92	04/03/93	6 months
Rowlo	10/07/92	03/22/93	5.5 months
Bridge	10/11/92	05/06/93	7 months
Harte Qaanle	11/02/92	08/14/93	9 months
Dacar	11/21/92	02/28/93	3 months

Table 2: Combined Statistics for All Feeding Centers Per Month (FY 92-93)

Month	Average Daily Attendance	Number of Deaths	Number of Patients Treated
September 92	848	27	17
October 92	1982	106	292
November 92	1497	90	1788
December 92	1520	86	4663
January 93	1403	41	3629
February 93	1001	19	2722
March 93	508	8	2825
April 93	296	2	1066
May 93	944	2	460
June 93	99	1	541
July 93	80	--	496
August 93	69	1	260
Total	783	383	18,759

2. *Feed each child enrolled in a feeding center 100 grams of unimix three times daily and send 200-300 grams of dry unimix home with the child to share with their siblings.*

Severely malnourished children were fed five times daily including three meals with unimix porridge and milk, and two feeds of high energy biscuits.

Supplementary, dry unimix distributions of roughly 2.0 kg per week were provided to children to take home to siblings. In total, 367 MT of unimix was cooked and/or distributed in feeding centers and distribution points throughout Bur Hakaba district and parts of the Bay region.

Table 3: Feeding Center/Supplementary Food Distributions (Sept. 1992 - Sept. 1993)

Center	Unimix (MT)	Milk (MT)
Aw Yayow	5.784	---
Aw Yaay	1.000	---
Boonka	6.387	---
Bridge	26.800	6.075
Buur Dhijis	2.800	---
Buur Heibe (Shiidaalow)	9.150	---
Buur Hakaba	26.800	4.700
Dacar	31.966	1.650
Dhun Dhufaay	8.630	---
Doogodebey	10.471	---
Doynuuney	32.550	4.400
Genber	4.499	---
Godka	5.500	---
Goof	5.500	---
Limaale	7.142	---
Lughabar	3.796	---
Mediina	12.533	---
Mintaal Amiin	2.252	---
Mood Mooda	4.007	---
Qaididle	1.358	---
Raydabo	19.605	---
Roble Sheik	---	---
Rowlo	27.256	3.900

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Sigaale	12.250	0.500
Tortorow	15.005	---
Waamo	8.214	---
Waarish	16.568	---
Wafdhey Weyne	12.945	---
Warabale	5.419	---
Waraqaday	0.721	---
Xarte Qaanle	32.600	5.025
Miscellaneous		
WV-EPI program	0.325	---
AMURT	---	8.225
CARE	---	---
CRS	---	0.350
GOAL	1.500	---
IMC	---	---
UNICEF	---	---
UNOSOM hospital	---	0.100
UNOSOM prisons	---	0.100
Ahlusunna Wajam Orphanage	3.250	1.000
Allah Amiin Orphanage	1.450	3.125
Islamic Relief Agency	---	0.150

Salahudin Al Mumin School	---	0.325
Surdo School	---	1.250
Other	1.010	2.150
Total	367.073	43.025

Note: 10.0 MT of soyamix, 14.68 MT of vegetable oil, and 36.126 MT of biscuits were also distributed during FY 93.

3. *Maintain nutritional progress records for each child who enters a feeding center.*

World Vision abided by internationally accepted standards for feeding center operations. Each center was managed by qualified and experienced nurses and doctors. Only those children below 75 percent weight for height were admitted to the clinic. Each child admitted was registered and given a plastic wrist band and a growth monitoring card. Each child was weighed every 1-2 weeks to monitor the child's progress. When children reached 85 percent weight for height and sustained that weight for a one month period, they were discharged from the center and put on dry ration unimix.

Like most other feeding center programs at the time, WV suffered from high default rates of children attending. The high rate was attributed to food availability elsewhere and also to families returning to their villages to plant their fields.

4. *Prepare and distribute agpaks for 25,000 farming families before the Gu rainy season in March 1993. Each agpak will contain: 15 kg of grain seed (sorghum, millet, or maize), 2 kg of peanut/cowpea seed, 0.5 kg of vegetable seed, and 2 hoes.*

A critical factor to the success of encouraging displaced inhabitants of Bur Hakaba district to return to their villages was the agricultural recovery program, launched in January 1993. Complementing the medical, commodity, and rehabilitation programs, the ag component was designed to enable the returnees to achieve a degree of food security in a short period of time. Having been looted of all their resources including agricultural inputs and seeds, these families needed assurance that they could indeed reestablish their livelihood despite continued uncertainty about the present and the

future.

A rapid rural appraisal was made and evaluation conducted by agricultural consultant, Admir Bay, in January 1993. Planning and procurement culminated in the distribution of 6,887 agpacks to 29 villages in Buur Hakaba district and the further provision of 14.65 MT of sorghum seed to offset crop failure during the Gu planting season in April-May 1993. Though many farmers, particularly those residing in the region north of Bur Hakaba town, reported that the resulting harvest in late July-early August was less than optimal, it was nevertheless the first real harvest in Bur Hakaba district in two and a half years. With the information acquired from the Gu survey/yield test, it was determined that the distribution of seeds and tools for the next Deyr season in October would need to accommodate the lower than expected harvest in the Gu season.

Another element of the FY 93 agricultural recovery program which demonstrated marked success was the demonstration plots project. At the beginning of the Gu rainy season, plots were established in three villages: Lughabar, Mood Mooda, and Korow. The demonstration plots, which were planted with sorghum, cowpeas, and mung bean, were designed to serve as models of proper weeding techniques, row planting, and inter-cropping. Valuable feedback was received from the farmers in each particular area.

Table 4: Agricultural Input Distributions (FY 93)

Village	Gu Agpacks: March and April 1993	Bunding Tools: September 1993
Aw Mayow	250	285
Aw Yaay	28	100
Boonka	---	100
Borama	66	---
Buur Dhijis	269	350
Buur Heibe (Shiidaalow)	100	122

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Caliyow Doiyo	300	209
Dacar	714	379
Dhun Dhufaay	210	100
Doogodebey	369	250
Doygab	30	141
Goof	---	356
Jamecada Dheen	340	117
Korow	361	116
Kurkurow	105	---
Limaale	509	250
Lughabar	211	---
Mediina	182	100
Mintaal Amiin	253	---
Mood Mooda	154	---
Qaididle	1.35121	---
Raydabo	19.605560	270
Roble Sheik	112	---
Rowlo	202	100
Shimbir	---	---
Tortorow	106	117
Waamo	159	330
Waarish	338	---
Wafdhey Weyne	212	350
Warabale	366	---
Waraqaday	100	---

AICF	---	4935
Other	160	---
Total	6887	9077

Amendment 1:

No change in programmatic objectives.

Amendment 2 (October 1, 1993 to September 30, 1994):

1. *Distribute 28,000 agricultural tools and 160 MT of seeds to 10,000 families in Bur Hakaba district for the 1994 Gu and Deyr seasons.*

In preparation for the Deyr agpack effort, the following materials were procured locally during FY 93: 6,835 narrow planting hoes, 13,265 wide weeding hoes, 10,023 bunding tools, 3100 shovels, 20 MT of cowpea seed, 13.96 MT of mung bean seed, and 50.00 MT of sorghum seed. In addition, 20 MT of millet seed and 0.38 MT of vegetable seed were purchased in Nairobi and airlifted into Baidoa. These materials were then compiled into agpacks which contained the following: 3.5 kg sorghum seed, 2.0 kg cowpeas and millet seed, 1.0 kg of mung bean seed, and 10 gm each of watermelon, tomato, hot pepper, and pumpkin seed.

For the following Gu season, 110 MT of locally produced seed (sorghum and cowpea) was purchased and distributed. Despite the considerable amount of time and labor involved in obtaining necessary implements and seeds from the local market, the stimulation of the local economy resulting from the local purchase was seen as a positive outcome. Unfortunately, World Vision was not able to quantify the actual impact of these purchases on the local market.

2. *Conduct monthly food distributions from October 1993 to August 1994, targeting 5,000 beneficiaries per month with a ratio of 10 kg per month.*

1,081 MT of locally produced sorghum was purchased and distributed under general food distributions and food for work activities. An additional 118 MT of rice,

donated by WV Korea, and 688 MT of WFP maize and vegetable oil were also distributed in FY 94.

Food for Work activities represented nearly a quarter of all food programmed in Bur Hakaba district. Activities focused on the rehabilitation of wells (62), catchment dams (53), the reconstruction of homes for displaced persons (360), the construction of a health clinic (1), and primary schools (13).

Following the bomb explosion at the WV compound in February 1994, it became imperative that food stocks be finished as soon as possible due to the real possibility of looting in the absence of expatriate personnel. As a result, by the end of April, most food stocks had been distributed, targeting those villages most in need with several months' ration.

By the end of June 1994, food security assessments had identified additional areas of need in Bur Hakaba district. WFP provided World Vision 688 MT of maize and vegetable oil for returnee and other vulnerable families before the onset of the Gu season harvest.

Table 5: Dry Ration Distributions of Local Sorghum (FY 94)

Center	FFW (MT)	General Distribution (MT)
Aw Mayow	19.5	80.15
Aw Yaay	---	5.15
Basmaaleh	---	1.3
Boonka	7.5	6.5
Buur Heibe	---	30.0
Buur Hakaba	15.0	---
Dacar	---	30.0
Dardarow	---	19.0
Dhun Dhufaay	35.0	23.1
Doygodebey	---	44.25

Genber I	---	---
Genber II	9.5	15.85
Gomorey	25.05	20.0
Goof	27.75	25.2
Kurow	---	1.5
Limaale	---	41.05
Lughabar	---	42.5
Mediina	---	28.15
Mood Mooda	---	28.2
Mintaal Amin	---	16.7
Raydabo	---	90.9
Rowlo	41.0	15.35
Shiidaalow	23.25	29.1
Tortorow	---	115.5
Waarish	35.15	22.5
Waamo	---	22.65
Wafdhey Weyne	---	33.65
Warabale	9.5	37.4
Waraqaday	---	6.85
Other	---	1.2
Total	248.2	833.70

3. *Stimulate the local economy through the local purchase of 1,500 MT of local sorghum, up to 132 MT of local seeds and 24,000 locally manufactured tools for use in the seeds and tools distributions.*

See response to Objectives 1 and 2.

4. *Continue the implementation of EPI, with the aim that 50 percent of children under five years of age will complete the immunization program, and 40 percent of pregnant and lactating women will receive at least two doses of tetanus toxoid.*

WV's mobile EPI program, aimed at decreasing mortality and morbidity among children under five years and women of child bearing age, was launched in March 1993. It was begun to address the tremendous need for rural vaccination coverage in Bur Hakaba district. Due to the war, the ongoing security problems, and the absence of a central government, there have been limited immunization programs undertaken over the past four years. As a consequence, the estimated coverage of fully immunized children under five years in the district was only 10 percent when WV's EPI program was initiated. Similarly, with women of child bearing age, tetanus immunization coverage was estimated at only 3.5 percent.

From March 1993 to January 1994, mobile EPI teams visited twenty villages a month on a monthly rotation. During this period 2,495 children under five were fully immunized against the six preventable childhood diseases.

Unfortunately, the EPI program was suspended from February 1994 to the end of the fiscal year due to the explosion at WV's headquarters in Baidoa. The explosion caused the evacuation of all expatriate medical staff. It was deemed that adequate and necessary supervision over the EPI program would not be achievable from Nairobi, and so this element of the health program was suspended until December 1994.

Table 6: Expanded Program For Immunization (Oct. 1993 - Jan. 1994)

VACCINE	OCT '93 TOTAL DOSES	NOV '93 TOTAL DOSES	DEC '93 TOTAL DOSES	JAN '94 TOTAL DOSES	TOTALS
TOTAL BCG	190	152	175	149	517
DPT-1	321	119	175	159	615
DPT-2	217	210	152	85	579
DPT-3	165	164	221	137	550
TOTAL DPT	703	493	548	381	1,744
OPV-0	0	6	3	1	9
OPV-1	321	113	172	158	606
OPV-2	217	210	152	85	579
OPV-3	165	164	221	137	550
TOTAL OPV	703	493	548	381	1,744
TOTAL MEASLES	166	83	154	92	403
# COMPLETED	165	164	221	137	550
TT#1	798	287	327	264	1,412
TT#2	401	307	253	123	961
TOTAL TT	1199	594	580	387	2,373

* EPI was discontinued after Jan '94.

5. *Continue to provide medical treatment, focusing on maternal child health, through the services of the mobile health clinic which will visit up to 20 villages that are outside the health network.*

Since the collapse of the central government and the Ministry of Health, there has been no health care available at the village level. Poor security limited the establishment of more permanent medical facilities. Therefore, a mobile health clinic was formed in February 1993 which established a regular rotation of visits to 10 of the larger villages in Buur Hakaba district. The mobile clinic treated a total of 15,517 cases in FY 1993, with malaria, respiratory infections, and skin infections the most commonly treated diseases. In FY 1994, 11,403 cases were seen.

Health education was an ongoing, important component of the clinic. The Somali health team performed a small drama before the clinic began at each village site to communicate specific health message to the villagers. Examples of health messages included how to prepare ORS for home treatment of diarrhea, personal hygiene, and sanitation.

Problems were encountered in implementation due to the lack of availability of UN military escorts to accompany the team from October 1993 to January 1994. In February 1994, the mobile health clinic was suspended indefinitely after the bombing incident at the WV compound in Baidoa.

Table 7: Mobile Health Clinic: Diseases & Number of Patients Treated Per Month (FY 94)

Diseases Treated	Oct '93	Nov '93	Dec '93	Jan '94	Feb '94	Mar '94	Apr '94	May '94	Jun '94	Jul '94	Aug '94	Sep '94	Total
Diarrhea (not cholera or dysentery)	157	152	175	173	-	-	-	-	-	-	-	-	657
Bloody Diarrhea	146	109	136	138	-	-	-	-	-	-	-	-	529
Suspected Cholera	-	-	-	-	-	-	-	-	-	-	-	-	-
Other Abdominal Problems	-	-	-	-	-	-	-	-	-	-	-	-	-
Respiratory Illness (not including TB)	417	298	422	361	-	-	-	-	-	-	-	-	1,498
Suspected TB	-	2	-	-	-	-	-	-	-	-	-	-	2
Suspected Malaria	508	422	758	808	-	-	-	-	-	-	-	-	2,496
Urinary Tract Infection or STD	-	-	-	-	-	-	-	-	-	-	-	-	-
Traumatic Injury (cuts/burns/breaks)	-	-	-	-	-	-	-	-	-	-	-	-	-
Skin Infection	340	261	306	149	-	-	-	-	-	-	-	-	1,056
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Suspected Meningitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Suspected Yellow Fever	-	-	-	-	-	-	-	-	-	-	-	-	-
Suspected Hepatitis	-	-	-	-	-	-	-	-	-	-	-	-	-
Other/ Unknown	1308	1044	1510	1303	-	-	-	-	-	-	-	-	5,165
TOTAL VISITS	2876	2288	3307	2932	-	11,403							

* Mobile Clinic discontinued in February 1994 due to bombing in WV compound in Baidoa.

6. *Facilitate the establishment and structure of 30 village based health posts and health committees.*

In collaboration with community and village leaders, nine villages were identified in FY 1993 to support and sustain a village health post. In each location, a village health committee was organized to administer the clinic and mobilize the community in support of its services. Because of security reasons and issues of capacity (the

inability to monitor numerous posts and the lack of adequately trained health persons to run these units), World Vision was not able to establish all 30 posts.

In May 1993, a two week refresher course for previously trained community health workers (CHWs) and traditional birth attendants (TBAs) was held in the newly renovated primary health care school in Baidoa. The training course was coordinated by International Medical Corps (IMC) with assistance from WV health professionals in the preparation of lectures and teaching aides. Eight CHWs and seven TBAs from these nine villages in Buur Hakaba district attended the course and were subsequently assigned to manage each of the village health posts. These posts are supervised at least twice monthly by Somali nurses to ensure adequate services. An average of approximately 2,080 patients were seen each month at all of the village health posts.

These health posts continued despite the February 1994 bombing. The table below indicates the spectrum of diseases treated at one of the larger health clinics over the course of the year.

Table 8: Dacar Clinic: Diseases & Number of Patients Treated Per Month (FY 94)

Diseases Treated	Oct '93	Nov '93	Dec '93	Jan '94	Feb '94 *	Mar '94	Apr '94 **	May '94	Jun '94	Jul '94 ***	Aug '94	Sep '94	Total
Diarrhea (not cholera or dysentery)	66	67	81	70	59	96	175	120	150	101	125	120	1,230
Bloody Diarrhea	35	36	38	35	14	38	87	58	85	59	66	59	610
Suspected Cholera	-	-	-	-	-	-	9	1	-	-	-	-	10
Other Abdominal Problems	-	-	-	-	-	-	18	143	120	122	134	114	651
Respiratory Illness (not including TB)	97	104	138	131	59	92	223	212	257	165	176	184	1,838
Suspected TB	7	6	5	4	5	7	12	6	11	8	9	5	85
Suspected Malaria	90	92	73	153	77	159	173	169	201	112	155	187	1,641
Urinary Tract Infection or STD	-	-	-	-	-	-	27	114	108	93	113	95	550
Traumatic Injury (cuts/burns/breaks/etc)	-	-	-	-	-	-	10	83	68	75	59	86	381
Skin Infection	173	140	135	109	59	109	196	192	228	163	184	143	1,833
Measles	-	-	-	-	-	-	-	-	-	-	-	-	-
Suspected Meningitis	1	2	3	-	-	-	-	-	-	-	-	-	6
Suspected Yellow Fever	1	1	-	1	-	-	-	-	-	-	-	-	3
Suspected Hepatitis	-	-	-	-	-	-	3	-	-	-	-	-	3
Other/ Unknown	223	180	249	263	127	227	297	285	361	244	342	259	3,057
TOTAL VISITS	693	628	722	766	400	728	1230	1383	1589	1142	1363	1254	11,898

* Statistics for Feb '94 available only from Feb 14-27 due to bomb attack on WV compound and staff relocation to Nairobi.

** Increased numbers due to withdrawal of NGO, AICF from the southern Bur Hakaba district.

*** Numbers decreased with opening of UNICEF MCH/OPD in Bur Hakaba town.

7. *Distribute 3,000 resettlement packs to needy families as identified by village elders. The resettlement packs will consist of one four meter squared piece of plastic, three blankets, three pieces of traditional clothing, two cooking pots with lids, one large enamel tray, two bowls, five cups, one water jug and one locally manufactured kitchen knife.*

402 families received rehabilitation packs during FY 94. In addition, another 6,606 blankets and 343 rolls of plastic sheeting were also distributed to returnee and destitute families. Up to 7,500 families (or 45,913 beneficiaries) benefited from these distributions.

Amendment 3 (October 1, 1994 to March 31, 1995):

1. *WVRD will identify a basic set of crop management practices to improve local yields of sorghum, cowpea, and mung bean.*

See response to Objective 2.

2. *WVRD will evaluate, select, purchase, and multiply 10 MT of local sorghum, cowpea, and mung bean seed.*

World Vision's activities in agricultural research and dissemination are carried out through research stations, field demonstration plots, field days, and contact with progressive farmers. Three demonstration plots were established in April and May of 1993 in Moode Moode, Doygab, Liimaale, and Korow. Two additional demonstration plots were developed in March 1995 in Golay (a sub-village of Dacar) and Dardarrow. In September 1994, World Vision established an agricultural field station in Baidoa near the former Bonka research station.

Demonstration Plots, Field Days, and Contact Farmers

Demonstration plots were created to encourage the adaption of simple farming techniques that rely upon the transfer of knowledge rather than external inputs. In May and December 1994, field days were held at each of the demonstration plots. The field days included a three-hour seminar followed by group discussion.

Topics discussed at field days included:

- Row planting
- Proper spacing
- Early weeding
- Soil and field management
- Identification of plant disease and pests
- Resistant varieties of seed
- Inter-cropping with legumes
- Post-harvest field cleaning
- Deleterious effects of ratoon planting
- Crop rotation
- Prevention of rain water run-off
- "Volunteer" crops

The field plots proved extremely useful in demonstrating effective crop management techniques under local growing conditions. White grub and stalk borer, common pests affecting sorghum in the Bay Region, were observed in the demonstration plots, providing a stimulus for energetic discussion among farmers. Stalk borer infestation is a result of "ratooning," a practice which does not facilitate the destruction of pests and diseases generated in previous harvests. At field days and with contact farmers, WV agriculturalists emphasized strongly the detrimental effects of ratoon farming during the Deyr growing season.

Agricultural Field Station

Land preparation for the agricultural research station at Bonka was completed in September 1994. Animal traction was used for the plowing, harrowing and making of the furrows for the four hectare site. The land was then apportioned for variety trials and seed multiplication, and a separate portion was allowed to lie fallow. The field station conducted trials on three key crops of the Bay region: sorghum, cowpea and mung bean. Similar trials were performed at the demonstration plots.

Ten different varieties of local sorghum were sown for the variety trials. Each variety was planted in a 4 row plot of the following dimensions and density: 5m long, 7cms apart, 50 cms between plants and 2 plants per hill. The resulting density was 5,333 heads/ha. The plot layout employed was of a random, block design. No fertilizer was spread or plant protection adopted. The data collected on each variety was as follows:

- * Days to 50% flowering
- * Plant height

- * Plant population
- * Harvested headcount
- * Grain weight per grams

As the sorghum crops were harvested, the two middle rows of each trial were selected, taking the central 4m, and discarding the 0.5m at each side. The heads were then dried in the sun, cleaned, weighed and conserved. The results were analysed for future variety trial selection at Bonka and the demonstration plots.

The sorghum harvest suffered considerably from stalk borer. Estimated crop infestation was 90 - 95%. Due to this damage, WV was not able to multiply 10 MT of seed during the Deyr season, but hoped to make up the difference in the 1995 Gu season using private funding. Damage to the sorghum tests were a result of two related factors. Because the project's objective was to farm in such a manner to allow all practices to be easily taken up by local farmers, no fertilizers, insecticides or pesticides were applied to the crops. In the Deyr season, such an approach rendered the seeds and young plants vulnerable to pests originating from surrounding farms which followed the practice of ratooning. The practice of ratooning, although labor saving, is not beneficial in terms of insect and pest control. The new seedlings in the trial plots attracted and were attacked by pests from the surrounding ratooned fields.

Similar, randomly selected quadrants were used to take samples in each of the four demonstration villages. One sample was taken from the demonstration plots and another from the contact farmers' fields. The results show a significant difference in the yields between those farmers practicing ratooning and the demonstration plots, where the crops were grown from seed and attention was paid to crop management techniques. On average the four ratooning samples give an estimated crop yield of 211kg/ha while the crops grown from seed samples averaged 326kg/ha (see Table 9).

Table 9: On-Farm Gu Season Sorghum Harvest: Farm Trials vs. Ratooning (January 1995)

VILLAGE	RATOONING	RATOONING	RATOONING	FARM TRIALS (SEED GROWTH)	FARM TRIALS (SEED GROWTH)	FARM TRIALS (SEED GROWTH)
	NO. / HEADS	WEIGHT/KG PER QUADRANTS	WEIGHT/KG PER HECTARE	NO. HEADS	WEIGHT/KG PER QUADRANT	WEIGHT/KG PER HECTARE
MOODE-MOODE	85	0.575	230	48	0.990	396
DOYDAB	81	0.490	196	38	0.680	272
LIMAALE	86	0.525	210	43	0.700	280
KOROW	79	0.520	208	45	0.890	356
TOTAL	331	2.110	844	174	3.260	1,304

Cowpea and mung bean multiplication trials at Bonka and the demonstration plots proved successful during the 1994 Dehr season. One hectare of cowpea and half a hectare of mung bean were sown at Bonka, both showing little signs of damage from pests or diseases.

Similar variety trials have begun for the 1995 Gu season. In March 1995, sorghum seed was received from ICRISAT and WV Mozambique. At the same time cowpea seed was obtained from ITT Nigeria. ICRISAT has been approached and has shown interest in collaborating with WV Somalia at the Bonka field station.

Three following management techniques are currently being demonstrated on the variety trials for the Gu season:

- * Comparative trials between treated and non-treated sorghum at Alio - Doyow
- * Prevention of rainwater run-off trials at Dardarrow and Golay
- * Crop rotation of sorghum, cowpea and mungbean trials at Korow, Moode Moode and Limaale.

Six hectares at Bonka, which are presently under cultivation, will be divided up as follows for the Gu season:

- 2 hectares for sorghum variety trials and seed multiplication.
- 1 hectare for cowpea and mungbean seed multiplication.
- 2 hectares for groundnut seed multiplication.
- 1 hectare remained fallow.

A total of four sorghum variety trails will be conducted, three using early maturing varieties received from ICRISAT, Kenya and one using a mix of local varieties with other entries received from Mozambique.

As a part of WVI's interest to promote a rejuvenation of the wider aspects of agricultural recovery in the Bay region, the team participated in coordination meetings with CARE, UNDP, USAID and EC, where the agenda focused on facilitating an agricultural workshop in Baidoa in November 1994, with the aim of bringing together Somali agriculturalists and others who have an interest in dryland farming. Unfortunately, due to insecurity surrounding the pull-out of UN forces, this idea was abandoned.

3. *WVRD will distribute agricultural packs containing sorghum, cowpea, and mung bean seed, one hoe, and one shovel to 4,000 families.*

During the 1994 Deyr season, 6.5 MT of sorghum, 25.5 MT of cowpea, and 12.75 MT of mung bean seed were purchased locally for distribution. 12,623 families received agriculture packs containing 2 kg of cowpea seed and 1 kg of mung bean seed.

Table 10: Deyr Season Seed Distribution (September 1994)

Village	Cowpea (MT)	MungBean (MT)	Sorghum (MT)	Families Served
Bur Heibe	0.6	0.3	1.5	300
Shiidaalo	1.212	0.606	3.03	606
DoyGodobey	1.77	0.885	-	885
Waamo	0.906	0.453	-	453
Wafdhey	1.346	0.673	-	673
Boonka	0.26	0.13	-	130
Moode-Moode	1.03	0.515	-	515
Wariish	0.81	0.405	-	405
Warabale	1.08	0.54	-	540
Gomorey	0.4	0.2	-	200
Warqadey	0.27	0.135	-	135
Dadaarow	0.76	0.38	1.9	380
Tortorow	2.1	1.05	-	1,050
Liimaale	1.534	0.767	-	767
Gember I	0.38	0.19	-	190
Reydhabo	1.818	0.909	-	909
Lughaber	1.422	0.711	-	711
Rowlo	0.614	0.307	-	307
Dhundhufey	0.76	0.38	-	380
Total	19.072	9.536	6.43	9,536

Table 11: Deyr Season Seed Distribution (October 1994)

Village	Cowpea (MT)	MungBean (MT)	Sorghum (MT)	Families Served
Madiina	1.104	0.552	-	552
Gember II	0.634	0.317	-	317
Aw-Mayow	1.128	0.564	-	564
Aw-Yaay	0.154	0.077	-	77
Goof	0.500	0.250	-	250
Dacar	2.310	1.155	-	1,155
Mintal Amin	0.344	0.172	-	172
Total	6.174	3.087		3,087

In preparation for the 1995 Gu agricultural season the food security team undertook a rapid assessment survey. Nine villages, lying to the north of Bur Hakaba town, were targeted in the survey because they were known to have suffered considerable bird damage over the past two seasons, and received considerable numbers of new returnees.

Distribution of Gu season agpacks commenced in preparation for the start of the rains in mid-April. A total of 25 villages were targeted for assistance, through the provision of 8,299 agpacks. Each agpack consisted of 10kg of sorghum seed, 2kg of cowpea seed, 1kg of mung bean seed, a wide and narrow hoe, a bunding tool and a file. All seeds and tools with the exception of the file, were procured locally in Baidoa, in an effort to further stimulate and support the local economy. New returnee families were targeted as the chief recipients.

Table 12: Gu Season Seed and Tool Distribution (March 1995)

VILLAGE	SORGHUM SEED (MT)	COWPEA SEED (MT)	MUNG-BEAN SEED (MT)	BUNDING TOOLS (PCS)	HOES NARROW/WIDE (PCS)	FILES (PCS)	# OF HOUSE/HOLDS
DOYGODOBY	11.38	2.276	1.138	-	-	139	1138
GEMBER II	2.56	0.512	0.256	256	512	256	256
ROWLO	0.99	0.198	0.099	99	198	99	99
MEDIINA	2.45	0.49	0.245	-	-	245	245
LUGHABAR	2.80	0.56	0.280	-	-	280	280
RAYDABO	2.83	0.566	0.283	283	566	283	283
LIMAALE	3.45	0.69	0.345	345	690	345	345
MOODE-MOODE	3.07	0.614	0.307	307	614	307	307
WARIISHO	3.9	0.78	0.390	-	-	390	390
WARAABALE	3.9	0.78	0.390	-	-	390	390
SHIDAALO	8.46	1.692	0.846	240	480	240	846
BUR HEIBE	4.39	0.878	0.439	-	-	139	439
GOOF	4.16	0.832	0.416	166	332	166	416
WAAMO	6.02	1.204	0.602	149	298	149	602
DADAAROW	5.29	1.058	0.529	149	298	149	529
MINTAL AMIIN	1.46	0.292	0.146	146	292	146	146
TOTAL	67.11	13.422	6.711	2140	4280	3723	6,711

Table 13: Gu Season Seed and Tool Distributions (April 1995)

VILLAGE	SORGHUM SEED (MT)	COWPEA SEED (MT)	MUNG-BEAN SEED (MT)	BUNDING TOOLS (PCS)	HOES NARROW/WIDE (PCS)	FILES (PCS)	# OF HOUSE/HOLDS
AW-MAYOW	2.39	0.478	0.239	-	-	239	239
WAFDHAY	1.49	0.298	0.149	-	-	149	149
BONKA	0.62	0.124	0.062	62	124	62	62
GOMORAY	1.94	0.388	0.194	194	388	194	194
WARQADAY	1.41	0.282	0.141	141	282	141	141
TORTOROW	2.1	0.42	0.21	210	420	210	210
DACAR	3.97	0.794	0.397	397	794	397	397
UGARI	0.8	0.16	0.08	-	-	-	80
GEMBER I	0.65	0.13	0.065	-	-	-	65
DHUN DHUFAY	1.21	0.242	0.121	121	242	121	121
TOTAL	16.58	3.32	1.66	1,125	2,250	1,513	1,658

4. *WVRD will continue to implement EPI activities with the aim that 50 percent of children under five will complete the immunization program and 40 percent of pregnant and lactating women will receive at least two doses of tetanus toxoid.*

The mobile EPI program, working in close collaboration with UNICEF, recommenced in December 1994 after having been suspended in February 1994 following the bombing of the WV compound in Baidoa. Targeting Bur Hakaba district, the EPI program was the only immunization program in the Bay Region being implemented outside of Baidoa town. The EPI program also incorporated the distribution of micro-nutrient supplements (such as vitamin A) during EPI campaigns.

Various security problems disrupted the smooth-functioning of the EPI program. The following tables show EPI coverage from December 1994 until the end of the grant period, March 1995.

The planning process for the establishment of a second, mobile immunization team continues. The program wishes to facilitate an increase in the coverage immunization within the northern Bur Hakaba district in FY 96.

Table 14: Child Immunization Statistics (Dec. 1994 - Mar. 1995)

VACCINE	AGE		TOTAL
	UNDER 1 YEAR	OVER 1 YEAR	
BCG	539	580	1119
POLIO - 0	23	--	23
POLIO - 1	530	581	1111
POLIO - 2	425	551	976
POLIO - 3	305	478	783
DPT 1	530	581	1111
DPT 2	425	551	976
DPT 3	305	478	783
MEASLES	297	540	837

Table 15: Tetanus Vaccinations for Women, 16 - 45 yrs (Dec. 1994 - Mar. 1995)

VACCINE	PREGNANT	OTHERS	TOTAL
TT1	391	996	1387
TT2	267	830	1097
TT3	162	544	706
TT4	23	143	166
TT5	3	8	11
TOTAL TT	850	2521	3371

5. *WVRD will conduct intensive training courses for community health workers (CHWs) and traditional birth attendants (TBAs).*

The CARE/WVI refresher training course for Community Health Workers (CHWs) and Traditional Birth Attendants (TBAs) was undertaken from March 18-30. Workers currently supporting WV village health clinics in Bur Hakaba district, including nine CHWs, seven TBAs, one Out-Patient Dispensary nurse (OPD), and two assistants, participated in the training. The employment of traditional knowledge in medical care was also discussed, and one of the WV TBAs gave a presentation on traditional healing techniques for broken bones. A WVI senior relief health specialist also gave a presentation on AIDS/HIV education. Both the opening and closing ceremonies were attended by local dignitaries. The district commissioner of Bur Hakaba gave an address to the visitors and students attending the closing ceremony. With the students singing and performing skits on the knowledge they had learned, the evening ceremony proved a great success.

WV medical staff and resources were also involved in treating and preventing the outbreak of cholera in February and March 1994. 198 patients and 8 deaths were recorded in Baidoa town.

Through the coordination between local officials and international agencies, a cholera treatment camp was established in Baidoa town, and a water/well chlorination, community awareness and education campaign was undertaken in the outlying areas. WV provided 60 cholera cots, patient food, and lighting for the treatment center. The WV health programme supervisor assisted as a member of the technical cholera committee, which ensured the smooth running of the camp and the effectiveness of the control campaign within the region. Within Bur Hakaba district, WV took full responsibility for water chlorination and community awareness campaigns to WV-assisted villages. Each of the 26 main villages were provided with a 200 liter drum to facilitate the provision of safe, potable water. Education on the use of the chlorine and ORS was given to village elders, religious leaders and village health committees. Each local situation was monitored. In the area of northern Bur Hakaba there were five confirmed cases and three deaths.

Amendment 4:

No change in programmatic objectives.