



**Integrated Health and Income Generation Support Program (IHIGS)
Phase I
DFD-G-00-05-00138-00
FINAL REPORT
15 June 2005 – 31 March 2006**



**Submitted to:
USAID/Office of Foreign Disaster Assistance**

Organization: Relief International

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Program Summary

Program Title: Integrated Health and Income Generation Support (IHIGS)

USAID/OFDA Grant No.: DEF-G-00-05-00138-00

Country/State: Sudan/North Darfur

Type of Disaster/Hazard: On-going man-made Conflict / Complex Emergency

Time Period Covered under the report: 15 June 2005 – 31 March 2006

Budget Summary / Cost Efficiency

	Total
Amount requested from OFDA	\$2,918,098
Amount from other Sources (Including RI contribution & In-Kind support from partners)	\$2,152,138
Total Dollar amount of Program	\$5,070, 235

	Total Amount USD	Cost to OFDA	Number of Beneficiaries	Cost to OFDA Beneficiary
Objective 1	1,061,351	858,851	72,163	11.90
Objective 2	298,650	175,150	94,413	1.86
Objective 3	1,369,100	19,100	49,000	0.39
Objective 4	529,500	465,438	92,700	5.13
Objective 5	439,950	365,825	75,000	4.88

The **Integrated Health and Income Generation Support I (IHIGS I)** program in North Darfur has been a successful initiative in terms of increased access to primary health care, improved nutritional status of children under the age of five, and delivery food supplies and relief commodities to internally displaced persons and their host communities. Under the program, Relief International (RI) has been able to provide emergency assistance while taking concrete steps to ensure the sustainability of services and preparing for the return of IDPs. The need to travel long distances for basic services is reduced and the long-term needs of the population have been addressed to the extent possible through the provision of income generation and fuel alternatives to Darfurian women at risk of sexual and gender based violence. Peaceful dispute resolution between communities has been encouraged through all cross-community activities; in addition, a conflict sensitive approach to humanitarian assistance was applied during the overall implementation of the program.

A) Program Goal

To increase the health, physical security and economic well-being of target population in North Darfur

B) Number of beneficiaries targeted and reached by objectives

Objective	Cumulative beneficiaries targeted	Cumulative beneficiaries reached
Objective 1 – Health	72,163	65,563
Objective 2- Nutrition	94,413	85,221
Objective 3- Relief commodities	49,000	63,596
Objective 4- Income generation	75,000	73,937
Objective 5- Food security	93,700	75,315

C) Demographic profile of the target population

Baseline survey

In September, 2005, a team comprised of an external consultant, a local team from Relief International, and local Government and Non Governmental Organizations conducted a base line survey in six targeted sites situated in North Darfur state. These were four locations, Kebkabiya, Tawilla, Kafod, and Taradona villages, and two Internally Displaced People's (IDP) camps, Dali and West Camps.

The purpose of the baseline survey was to assess and document the general population's health, nutrition, and livelihood status. The outputs of the survey and processed data have been used for future assessment and benchmark indicators that help measure the progress towards meeting the objectives of IHIGS project and a recommendation for future programming by Relief International (survey report document submitted to OFDA).

Midterm review

The purpose of this review was to conduct a midterm evaluation of IHIGS project and train RI staff on M&E techniques as well as improve the efficiency. The outputs of this study were:

- Assessment of the project progress to date
- Transfer the skills to RI staff on M&E techniques
- Introduction of a simple M&E computerized programs
- Recommendations for the future management of the project

The project received an overall satisfactory review. The results are intended to be a learning experience and kickoff point for improvement for the next phase.

End project evaluation

In April, 2006, a team comprised of twelve persons - the RI monitoring and evaluation consultant, ten Relief International staff and a translator conducted a final review of the IHIGS Project in North Darfur State.

The purpose of the final review was to assess the project achievements and challenges and to transfer skills to RI staff on monitoring and evaluation techniques with respect to the final or summation evaluations. The final review was preceded by a two day skills building training.

A total of 226 persons were interviewed during the field period, which extended over seventeen day period in three villages (Kebkabiya, Saraf Omra and Tawilla) and two IDP camps (Dali Camp and West Camp). The final review of the IHIGS Project included a field questionnaire, and the consultant studied more than 100 documents provided by RI and other sources.

The review findings for IHIGS objectives 1 and 2 have been rated highly relevant, well managed, and properly documented. Objectives 3, 4 and 5 were directed at more development oriented needs of the communities, such as income generation alternatives and increased household wealth, and rated satisfactory due to challenges faced by RI and all aid organizations to implement development-oriented programs within a context that is more relief-oriented and constrained by security issues.

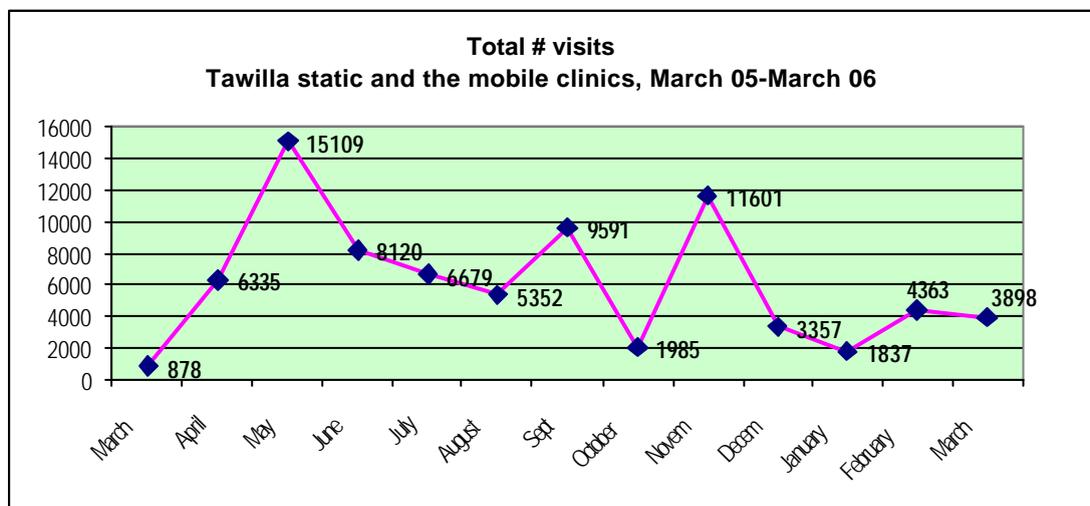
Objective-Focused Program Description and Activities

Objective 1: Health

To reduce morbidity and mortality by increasing access to primary health care (PHC) services, including expanded program of immunization, reproductive health and community health education.

Number of beneficiaries reached: 58,563

More than 65,000 IDPs and host community residents in Tawilla town, surrounding camps, and villages have gained increased sustainable access to primary health care services during the period of June 2005 to end of March 2006. During this period, Tawilla static and the mobile clinics received more than 78, 227 patients in the outpatient department, out of that figure 29,564 (38.8%) were reported in the first quarter, 23 607 (30.2%) were reported in the second quarter, and 25,056 (31%) were reported during the third quarter (see graph 1 below). Under-five years consultations account for 38.7% of the total consultations.



Almost all cases have received suitable treatment and management. Critically and severely sick patients were referred to El Fasher hospital for further investigations and management. Through out the project duration, RI referred 272 patients to a higher health facility. While 13.2% of these patients were under-five children, 26.8% were women of reproductive age.

RI has established Standardized Operational Procedures (SOPs) for referral system for critically and severely sick patients who cannot be treated at Tawilla level and needs a special care at a higher health facility level in Fasher hospital by specialized doctor. The medical doctor in charge of the clinic in the field is the responsible person for the referral and he decides whom and when to refer. Each referred patient have a referral sheet filled by the medical assistant including the full name of the patient, the age, sex, diagnosis, causes of the referral, treatment given before referral and recommendation including special procedures during referral. All referred patients should be accompanied by a nurse during the trip from Tawilla to the hospital. All women with gynaecological or obstetric problems should be referred to Saudi hospital while all other patients should be referred to Fasher hospital. All services in Fasher hospital should be given free without any charge to the patients as WHO has agreement with MOH to treat all referral cases free. If there is any problem regarding this issue, WHO Fasher sub-office can be contacted. As transportation from Tawilla and Dali camp is difficult to access because most patients cannot afford for transportation fees and due to insecurity reasons, and to save life of patients, all patients are transported by RI vehicle from Tawilla to the hospital to the extent possible.

The major health problems and the most common diseases responsible for the morbidity and mortality in the area are acute respiratory tract infections (ARI) that constitute 25.7% of all diseases, and 12.4% among under-five children followed by diarrhea that accounts for 16.4% of the total cases and 7.1% within under-five children. While malaria accounts for 9% of the total cases, 7.2 % of the cases occurred in the first quarter (June to September) due to the rainy season.

Table 1: June to March morbidity data for Tawilla and mobile clinics

Disease	June, 05		July, 05		August, 05		September, 05		October, 05		November, 05	
	> 5	Total cases	> 5	Total cases	> 5	Total cases	> 5	Total cases	> 5	Total cases	Under 5	Total cases
Acute watery diarrhea	0	0	0	0	0	0	0	0	0	0	0	
Acute bloody diarrhea	30	100	58	206	24	87	17	51	32	65	35	
Chronic diarrhea	187	359	542	1186	157	361	123	293	34	104	130	
	0	0	0	0	0	0	0	0	0	0	0	
	433	759	610	1408	277	593	239	571	39	97	423	
Cholera	0	0	0	0	0	0	0	0	0	0	28	
Malaria	45	237	104	535	77	543	106	655	50	71	115	
Suspected measles	0	0	0	0	0	0	0	0	0	0	0	
Unexplained neonatal tetanus	0	0	0	0	0	0	0	0	0	0	0	
Unexplained severe malnutrition	2	2	0	0	0	0	0	0	0	0	1	
Suspected meningitis	0	0	0	0	0	0	0	0	0	0	0	
Unexplained fever	0	0	0	0	0	0	0	0	0	0	1	
Unexplained jaundice												
Dysentery	0	2	0	0	0	1	0	4	0	0	6	
Others	258	1511	387	2056	210	1365	378	1482	321	376	1174	1
Total	955	2970	1701	5391	745	2950	863	3056	476	713	1913	2

In an attempt to improve the health information system, RI as other NGOs in the area following WHO and State Ministry of Health (SMoH), has established a sentinel surveillance for twelve diseases that is standardized in both the Government of the Sudan and SLA controlled areas. Based on this system, data is collected on weekly basis with availability of case definition for all twelve diseases. RI health staff manages the surveillance system and is responsible for analyzing surveillance data as well as forwarding reports to state level.



RI Maternity Center in Tawila Clinic

During the program implementation period, the project continued to provide immunization against the six childhood diseases where 410 children were given BCG vaccine, 6530 DPT3 and Polio 3 vaccine, and 1126 children were vaccinated against measles.

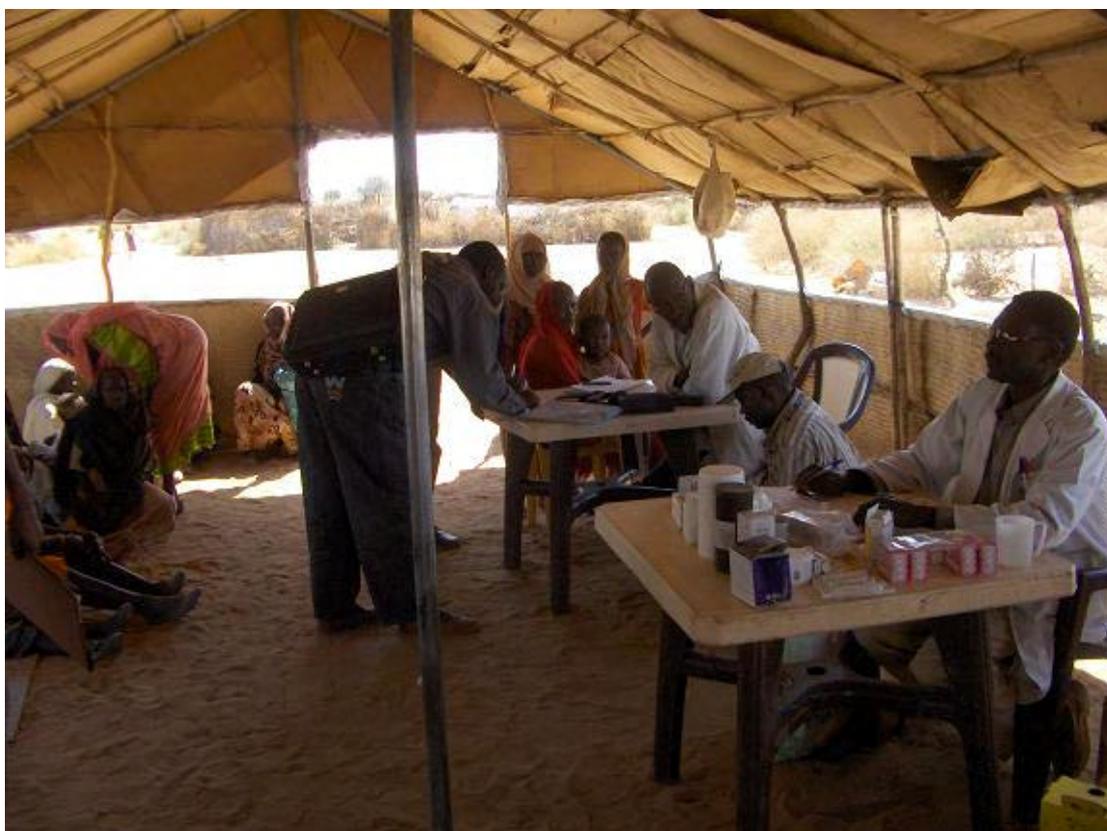
In July and August 2005, the project supported the two rounds of the National Immunization Days (NIDs) of Polio eradication. In the first round, more than 12,000 children were vaccinated against Polio in 63 villages where as in the second round more than 11500 were vaccinated in 56 villages. Due to rainfall during the second round, some of the villages were not accessible. RI support to National Immunization Days was in the form of provision of vehicles, training of vaccinators, and supervision of teams.

Table 2: June to March EPI data

Month	BCG	DPT 3	Polio 3	Measles	Vaccinations Completed
March, 05	0	281	281	115	0
April, 05	15	626	626	128	98
May, 05	55	641	641	84	50
June, 05	27	588	588	107	94
July, 05	54	304	304	50	25
August, 05	34	500	500	48	50

September, 05	18	352	352	35	37
October, 05	0	513	513	72	19
November, 05	52	1669	1669	205	131
December, 05	0	144	144	39	35
January, 06	20	185	185	24	22
February, 06	83	393	393	57	55
March, 06	52	334	334	162	51
Total	410	6530	6530	1126	667

During November, 05 the project organized a measles mass vaccination campaign in collaboration with MOH, WHO, and UNICEF, where more than 14,000 children were vaccinated against measles in 84 villages with a total coverage of 116%. In February, 2006 the project witnessed the Iodine Diet Deficiency (IDD) campaigns, where more than 14,000 children were given iodine supplementation tablets.



RI clinic in the Dali IDP camp

During the program implementation period, emphasis has been given to inputs necessary for strengthening the quality of services to pregnant women in Tawilla region. The focus remained on the following main activity areas:

- Provision of quality antenatal services for pregnant women and identification of staff training needs

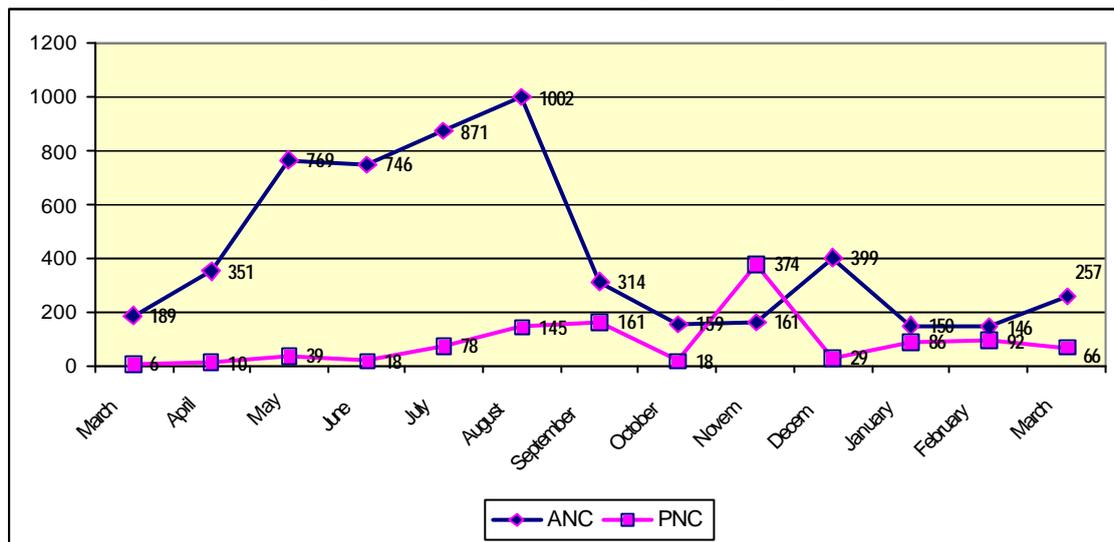
- Analysis of diagnosis and treatment of pregnancy complications at the Tawilla clinic and monitoring the accuracy of the treatment according to the guidelines

Antenatal care services remained good during the program implementation period. There were as many as 6645 pregnant women registered in the program

who regularly come for follow up and antenatal check up, while only 1067 women were seen after delivery for post-natal check-up. **Graph 1** shows the number of women who visited RI health facilities for antenatal and postnatal consultations during the reported period.

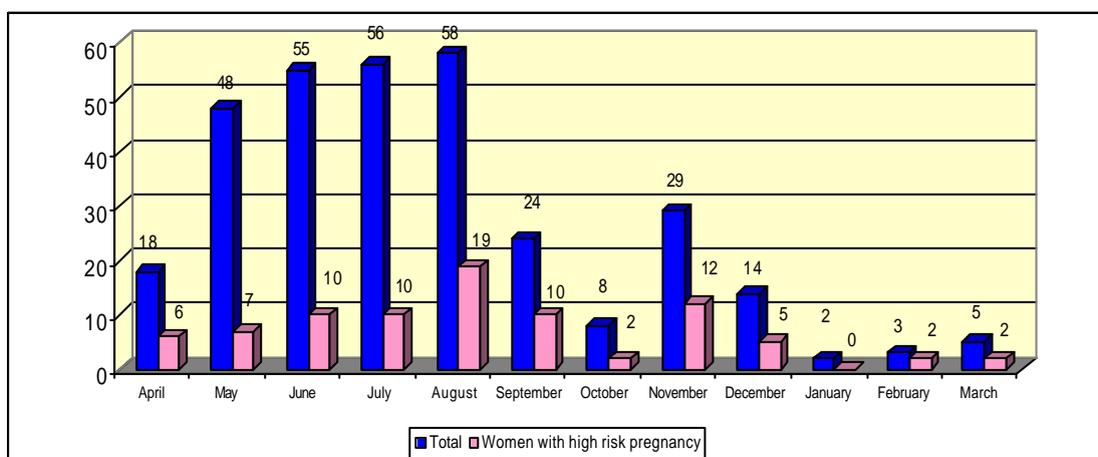
RI trained as many as 25 midwives to provide antenatal and post natal services to women in targeted communities.

Graph 1: Antenatal and postnatal care services provided by RI trained midwives

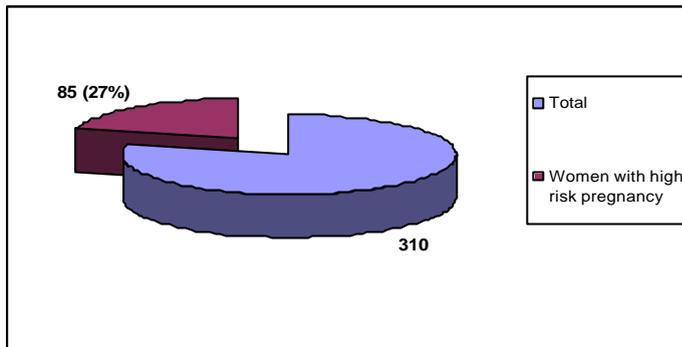


Provision of 24-hour basic EmOC services, such as IV/IM antibiotics, IV/IM Oxytocics, and assisted vaginal delivery were established at the PHC clinic in Tawilla. The antenatal care services were designed to manage most of the complications involving pregnancies and deliveries with timely referral of high risk pregnancy. Consequently, most of cases with obstetric complications were treated by RI staff and the number of referrals significantly decreased (graph 2). During the program implementation period a total 85 women (27% of total referrals) were referred to the referral hospital due to obstetric complications (graph 3).

Graph 2: Referral of critically sick patients

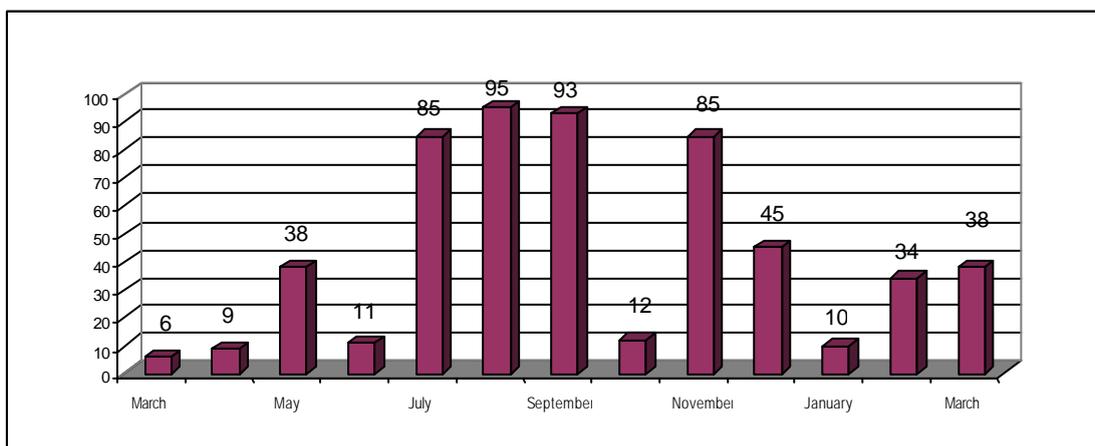


Graph 3: EMoC referrals March2005-March 2006



RI encourages home deliveries provided that it is assisted by trained personnel. Up to date, RI midwives assisted in 561 deliveries (graph 3).

Graph 3: Number of normal deliveries assisted by RI trained midwives by months



The project has established a Community Health Promoters (CHPs) network from the community based on certain criteria for selection. The main purpose is to raise the awareness in the community on various health and nutrition issues. CHPs conduct health education programs at clinic, household, and community levels, as well they refer children for vaccination and check-up.

RI Community based referral system

Complications related to pregnancy were discussed with CHPs. During program implementation period CHPs distributed ferrous sulphate and folic acid to 1493 women in the villages to prevent anaemia in pregnant women. RI staff organized "Community Health Promoters' Day". CHPs were invited to visit Safe Motherhood and Immunization units, and RI staff gave information about health activities and demonstrated clean delivery room practices. Bi-monthly meetings were held with 40 CHPs on weekly and monthly reporting; weekly and monthly statistical reports from CHPs were compiled, analyzed, and tabulated.

Emergency Response Team

RI has established an emergency response team as a result of frequent changing of security situations throughout Darfur region and dynamic movement of the

population. The team was trained to be able to carry out a rapid assessment when needed and to provide immediate health and nutrition support. The team was also trained on emergency preparedness and response to effectively and efficiently manage any expected disease outbreak - particularly diarrhea during rainy seasons. During the last quarter of the program implementation period, the emergency response team was able to carry out an assessment in Kafod, Mellit ,and Sarafaya areas.

Objective 2: Nutrition

To support the nutritional status of malnourished children under five years of age and pregnant and lactating women through the establishment of both static and mobile supplementary feeding centers and the distribution of dry food ration.

Number of beneficiaries reached: 85,221



Children under Nutritional Test

During the program implementation period, RI has established five Supplementary Feeding Centers (SFCs) in Tawilla town, Dali Camp, West Camp, Kunjara, and BobaySigili areas. The total number of beneficiaries attending these centers during the program implementation period was 1763 in the SFP, 159 in the OTP, and 294 pregnant and lactating women. RI was following the Community Therapeutic Care (CTC) approach in its nutrition program and has established a network of Community Nutrition Workers (CNWs) at grass root level. In addition, to the awareness raising programs, the CNWs are tracking malnourished children in their villages and thus decreasing the defaulter rate of children attending RI feeding centers.

The nutrition program has distributed UNIMIX, plumpynut, CSB, and PB5 as well as Vitamin A supplementation, iron syrup, and folic acid tablets.

Table 5: Nutrition beneficiary's breakdown June 2005 to March 31, 2006

Type of program	Total admission	Total discharge	Total defaulters	Total died	Total currently in program
SFP	1763	282	978	6	4317
OTP	159	80	67	4	626
Pregnant and lactating women	294	1	242	0	649

During September 2005, RI initiated and completed a general food distribution in Kafod town and Kafod rural area to 34,874 beneficiaries in 40 villages who were in dire need of food aid. Six distribution centers were established namely, Kafod center, Tiega, Lambarti, Abu Sakin, Gabrer, and Um Shera. A total of 1166.54 kg composed of 15 kg per person of cereals, pulses, CSB, vegetable oil, sugar, and salts were distributed. It is worth-mentioning that during November 2005 the same food containing the same items and the same quantities were re-distributed to same beneficiaries as a second ration in the same areas.

Table 6: Food distribution in Kafod during September and November 2005

Center	No. of Benef	Cereal Kg 15	Pulses Kg 1.5	CSB kg 1.5	Veg. oil Kg 0.9	Salt Kg 0.3	Sugar Kg 0.7	Total MT
Abu Sakin	4,600	69,000	6,900	6,900	4,140	1,380	3,450	91,770
Gabr Ganam	8,200	123,000	12,300	12,300	7,380	2,460	6,150	163,590
Kafod	7,340	110,100	11,010	11,010	6,606	2,202	5,505	146,433
Teiga	4,233	63,495	6,350	6,350	3,810	1,270	3,175	84,448
Um Shera	5,500	82,500	8,250	8,250	4,950	1,650	4,125	109,725
Lambati	5,001	75,015	7,502	7,502	4,501	1,500	3,751	99,770
Total	34,874	523,110	52,311	52,311	31,387	10,462	26,158	695,736

During November 2005, the project conducted a nutritional anthropometric and retrospective mortality survey for children 6 to 59 months old in Tawilla town and Dali and Argo Camps. A multi-stage cluster sampling method was used. A total of 30 clusters of 31 children each were selected. A total of 930 children were measured. After data analysis it appeared that global acute malnutrition was 19.4% while severe acute malnutrition was 4.3% in the Z score.

Table 7: Malnutrition rates in children age 6-59 months in Tawilla

Age group	Indicator	Result in Z score	Result in W/H of median
6 – 59 months	Global acute malnutrition (<-2 Z- score or <80% of W/H median and or/edema	19.4% (95% CI: 16.9 – 22.1%)	14.2% (95% CI: 11.9% - 15.5%)
6 – 59 months	Severe acute malnutrition (<-3 Z- score or <70%	4.3% (95% CI: 3.1 – 5.9%)	2.1% (95% CI: 0.8% - 3.6%)

	of W/H median and or/edema		
6 – 59 months	Global acute malnutrition (<-2 Z- score or <80% of W/H median and or/edema	21.1% (95% CI: 17.0 – 26.0%)	17.9% (95% CI: 14.0% - 22.5%)
6 – 59 months	Severe acute malnutrition (<-3 Z- score or <70% of W/H median and or/edema	5.7% (95% CI: 3.5 – 8.8%)	2.7% (95%

Table 8: causes of mortality

Causes	Freq. in >5	Freq. in <5	Total	Percentage
Diarrhea	9	1	10	22.2%
Respiratory infections	0	1	1	2.2%
Fever	15	1	16	35.6%
Trauma	8	0	8	17.8%
Unknown	2	0	2	4.4%
Others	7	1	8	17.8%
Total	41	4	45	100%

Fever (malaria) was ranked as a leading cause of death followed by diarrhea.

Table 9: Crude and under five mortality rate

Age group	No. of people alive on date of the survey	No. of deaths	Mortality rate
Under-five children	1,367	4	0.3/10,000/day
Total population	5,647	47	1.0/10,000/day

The crude and under-five mortality rates are below the alert level.

Table 10: Measles vaccination status of children age 6 – 59 months

Vaccination status	Number of people	Percentage
Fully vaccinated by card	56	6.2%
Mother recall	377	41.6%
Not vaccinated	473	52.2%
Total	906	100%

During March 2006, the project conducted another anthropometric nutritional and mortality survey in Kafod area with the objectives to assess the nutritional status of children between 6 to 59 months of age, quantify malnutrition within the population, and use the results for informed programme decision making. The methodology and the sample size used in this survey were the same as that used in the previous survey. Data collection was done in a period of six days by four teams of five people each. In this survey, 965 children were measured but only 961 were analyzed. For the mortality survey, 840 households were surveyed with a total of 5653 people and 1308 under-five alive on the day of the survey. 194 households were surveyed for the food security and livelihood.

Table 11: Malnutrition rate in children age 6 – 59 months in Kafod area

Age group	Indicator	Results in Z-score	Results in W/H of median
06 – 59 months	Global acute Malnutrition (<- Z-score or <80% of W/H median and or edema)	13.9% (95% CI: 10.8-17.0%)	8.6% (95%CI: 7.0-10.6%)
06 – 59 months	Severe Acute Malnutrition (<-3 Z-score or <70% W/H and or edema)	2.1% (95% CI: 0.8-3.4%)	0.5% (95% CI: 0.2-1.3%)
06 – 59 months	Global acute Malnutrition (<- Z-score or <80% of W/H median and or edema)	23.2% (95% CI: 19.8-26.6%)	15.7% (95%CI: 11.9-20.4%)
06 – 59 months	Severe Acute Malnutrition (<-3 Z-score or <70% W/H and or edema)	4.6 (95% CI: 3.3-5.9%)	0.3% (95% CI: 0.0-2.1%)

Global Acute Malnutrition (GAM) was 13.9% while Severe Acute Malnutrition (SAM) was 2.1% in Z-score. The acute malnutrition rate was higher in children age less than 30 months. Those children are in need of proper care and weaning practice.

Table 12: Numbers and causes of deaths in Kafod

Causes	Frequency among >5	Frequency among <5	Total	Percentage
Diarrhea	0	0	0	0%
Respiratory infection	0	5	5	45.5%
Fever (malaria)	0	1	1	9.1%
Measles	0	0	0	0%
Others	1	4	5	45.5%
Total	1	10	11	100%

Table 13: Crude and under 5 mortality rates in Kafod

Age group	# of people alive at date of survey	Number of deaths	Mortality rate
Under 5	1308	10	0.8/10000
Total population	5653	1	0.2/10000

Table 14: Morbidity during the last two weeks of the survey in Kafod area

Disease	Under 5 cases	%	More than 5 cases	%	Total	%
Diarrhea	208	21.7%	34	6.0%	242	15.9%
Fever	173	18.1%	91	16.1%	164	17.3%
Acute respiratory infection	44	4.6%	14	2.5%	58	3.8%

Measles	0	0.0%	0	0.0%	0	0.0%
Others	317	33.1%	211	37.3%	528	34.7%
No illness	216	22.5%	215	38.1%	431	28.3%
Total	958	100%	565	100%	1523	100%

Table 15: Measles vaccination of children in Kafod area

Vaccination status	Number	Percentage
Vaccination confirmed by card	417	43.4%
Mother or caretaker recall	408	42.5%
Not vaccinated	133	13.8%
Data missing	3	0.3%
total	961	100%

Objective 3: Relief Commodities

To provide essential relief commodities to highly vulnerable families

Number of beneficiaries reached: 63,596



Relief Commodities

During the first quarter of the program implementation period, 4,640 plastic sheets (1/HH), 3,000 plastic ropes (1/HH), 2,000 iron poles (1/HH), and 6,200 blankets (5/HH) were distributed in Tawilla and Dali Camp while 8,200 plastic sheets (1/HH), 3,890 jerry cans (1/HH), 8,200 buckets (2/HH), 8,200 women's cloth (1/HH), 20,290 blankets (5/HH), and 123,000 bars of soap (2/person) were distributed in Kafod area.

During the second quarter, RI distributed relief commodities to 265 IDPs households (1603 persons) in the West Camp of rural Tawilla and non-food items to 1,021 persons (170) households in the East Camp. Those include cloth for women (1 per HH), blankets (5 per HH), plastic mats (1perHH), empty jerry cans

(1perHH), soap (2 per person), and pots (1 per HH). These items were distributed through seven distributions centers in the West Camp and two distribution centers in the East Camp.

Table 16: Distribution of relief commodities in the West Camp

Center name	No. of persons	No. of HH	Women's cloth	Mat	Jerry can	Soap	Pots	Blankets
Dogo	196	32	32	32	32	392	32	160
Kunda	192	32	32	32	32	384	32	160
Salabo	284	47	47	47	47	568	47	285
Kalma	74	12	12	12	12	148	12	60
Adam	214	35	35	35	35	428	35	175
Darib	325	54	54	54	54	650	54	270
Shakok	318	53	53	53	53	636	53	265
Total	1603	265	265	265	265	3206	265	1375

Table 17: Distribution of relief commodities in East Camp

Center name	No. of persons	No. of HH	Women's cloth	Mat	Jerry can	Soap	Pots	Blankets
Hajat	475	79	79	79	79	475	79	316
Martal	546	91	64	50	50	546	75	364
Total	1021	170	143	129	129	1021	154	680

Following the general food distribution in Kafod in October, 2005 RI distributed relief commodities and non food items to 5,685 IDPs and host community households through six distribution centers.

Table 18: Distribution of relief commodities in Kafod

Center	No. of persons	No. of HH	Plastic sheets	Women's cloth	Plastic mat	Jerry cans	Soap	Buckets	Blankets
Ganam	9824	1228	829	1228	1228	937	18420	1228	3684
Kafod	8776	1097	711	1097	1097	538	16455	1097	1097
Absikin	7360	920	572	920	920	591	13800	920	920
Umshera	7208	901	669	901	901	573	13515	901	901
Tega	4960	620	901	620	620	398	9300	620	620
Lumbati	7352	919	620	919	919	497	13985	919	919
Total	45480	5685	4302	5685	5685	3435	85475	5685	8141

Objective 4: Income generation

To provide income generation alternatives to firewood collection and increase community resilience to climatic and economic shocks by promoting small animal husbandry, manufacture of fuel-efficient stoves, in-kind small enterprise support, and an alternative fuel research project.

Number of beneficiaries reached 73,937

Community Mobilization

During the first quarter, Relief international succeeded in setting up and forming 16 committees in each of the quarters around Kebkabiya town aiming at mobilization of the beneficiaries for all RI activities. During the second quarter, RI consolidated the role of the 16 committees to assist RI activities with primary beneficiaries. The community was mobilized, empowered, and sensitized about RI

activities in Kebkabiya and Saraf Omra. This was done through consultative meetings conducted by RI community mobilization officers through the local team leaders. The committees assisted RI in the distribution of 10,000 egg laying chickens to 2,000 beneficiaries. The committees were showing and keeping good relations with the community that feels satisfied with their role.



Community Mobilization Training

During the third quarter, and for an effective community mobilization and to ensure transparency, accountability, and community ownership, RI with other International NGOs including CHF, WFP and OXFAM together with National organizations like KSCS and WES, has agreed to form a joint integrated committee that would link NGOs with beneficiaries.

Each of the 16 block/quarter of Kebkabiya have developed a committee of 21 members totaling 336 members. In each block/quarter, the committees will work through different three sectors including livelihood/protection, food security/agriculture and water and sanitation sub-committees each with seven members.

The following principles were agreed upon jointly by all agencies:

- The role and responsibilities for the committee members is purely to link the community members with NGOs based on the above mentioned sectors.
- Criteria for selection of beneficiaries and committee members should compose of 70% IDPs and 30% host members and 50% women.
- No cash nor in-kind incentives for these committees members, however, as members of the community they benefit from all services offered to the community in general based on criteria of each organization has set for its service delivery.

In March 2006 RI organized special community development training for 150 participants (80 men and 70 women) comprising community leaders, RI committee members, women, and youth leaders. Main topics of the training were

introduction to different community participation tools including PRA and main areas in community mobilization skills.

Chicken Restocking (Distribution of Egg-laying chickens)

During the first quarter, selection of beneficiaries from the 16 block/quarters of Kebkabiya for the first round of the preparation of chicken distribution was finalized. The 80 Community Animal Health workers (CAHWs) in Kebkabiya educated the community on the maintenance of chicken including feeding, breeding, and cleaning. Beneficiaries have been convinced that these chickens were to be bred to lay egg and not for food or to sell. It was made clear to the community that the eggs can be used as a food to enhance their diet, as well as source of income whenever there is an excess. The trained CAHWs in Kebkabiya greatly assisted in the construction of the chicken shelters which were built very successfully.



Chicken Distribution

During December, 2006, the first batch of egg-laying chickens of 3 – 4 months old was transported to Kebkabiya. In general 4,817 chickens arrived and distributed to 1,000 household beneficiaries for a total of 8,000 individual beneficiaries. On March, 2006, the second batch composed of 4,621 chickens was distributed to 1,000 families for a total of 7800 individual beneficiaries. These chickens were distributed with a three month chicken feed to assist in successful establishment.

The trained CAHWs were very helpful throughout the process of distributing the chickens. They were essential in monitoring the health of, and in providing minor treatment to, the chickens and in distribution of chicken feeds. Further, they recorded and kept all needed and necessary data for RI management.

From the first batch of chickens that started egg-laying, during the monitoring process by the CAHWs, the following are the statistics of the number of chickens present with the beneficiaries, number of chickens diseased, and those infected by different type of disease.

Table 19: Chicken monitoring by CAHWs

Current number of chickens	Number of cases of diseases	Number of deaths	Number of eggs produced
4766	200	50	5228

The monitoring team recorded sporadic production of eggs, which the beneficiaries have used for house consumption and others being sold in the local market. The CAHWs monitored and assessed the number of eggs sold in the market and the number which the beneficiaries are consuming. Initial reports indicate that 60% of eggs are sold in the local market of Kebkabiya.

On the other hand, malnutrition of chickens' coupled with cannibalism has caused panic to some beneficiaries. As assessment carried out during this time indicates that statistically, the cause of death of chickens can be attributed to diarrhea that constitutes 59%, cannibalism 36.3%, respiratory infection 3.6% and 1.7% due to paralysis due to calcium deficiency.



Chicken Health Check

Since the cases of cannibalism is quite alarming in spite of being unusual to the tradition of the people in Kebkabiya compared to the local breed, RI is devising a strategy of cutting the chicken beaks and as well providing enough feeds and space.



Chicken Restocking

Efforts are being made by the CAHWs in close collaboration with the beneficiaries to form cooperatives to help them sell eggs collectively so as to maintain good standards of price control. This has been welcomed by various members of the community and RI is building the capacity of these groups so that they benefit from the micro-credit project currently operational in Kebkabiya.

Assessment has been done to establish the local-ingredient feed present locally with community sensitization and mobilization. The process is being introduced to the local community gradually so they can at the end manage the chicken feed production themselves.

Small-Enterprise Support

The main objective of this activity is to consolidate and to increase the level of sustainability of RI livelihood programs by providing small credits or loans in the form of revolving fund to beneficiaries.

All together, 299 beneficiaries participated in financial management, business planning, and simple business accounting skills. Among the groups, two are cooperative societies that been selected to benefit from the loans. The RI team has prepared contracts, repayment policies, and forms and checklists for beneficiaries. The project also benefited from the experience of local partners with local experience on micro-credit programs. Two local NGOs in Kebkabiya, Small Holder Charitable Society and Women's Development Society, were involved in this scheme.

All selected beneficiaries submitted timely proposals during the month of December 2006. A team of experts with the help of CHF analyzed the proposals and all 20 groups were selected to benefit from the loans.

Among several applicants, 64 beneficiaries were able to receive credit from RI. Besides, giving credit, the purpose of the training was to instill to entrepreneurs

the idea of savings and improvement in business management activities through a formal way of recording daily expenditure, losses, and profits within a workable business plan of action.

For those who have received credit, records have shown that repayment schedule has been good with no defaulters. R small enterprise monitors are assessing the level of business success and identifying ways by which improvement can be made.

Fuel-efficient Stove Activities

During the program implementation period, 7,331 women have trained in the manufacture of fuel efficient stoves (FES) in Kebkabiya, and 3,699 were trained in Saraf Omra making a total of 11,030 women trained in fuel efficient stoves technology in both areas. Therefore, there are 11,030 direct beneficiaries and 66,180 indirect beneficiaries.

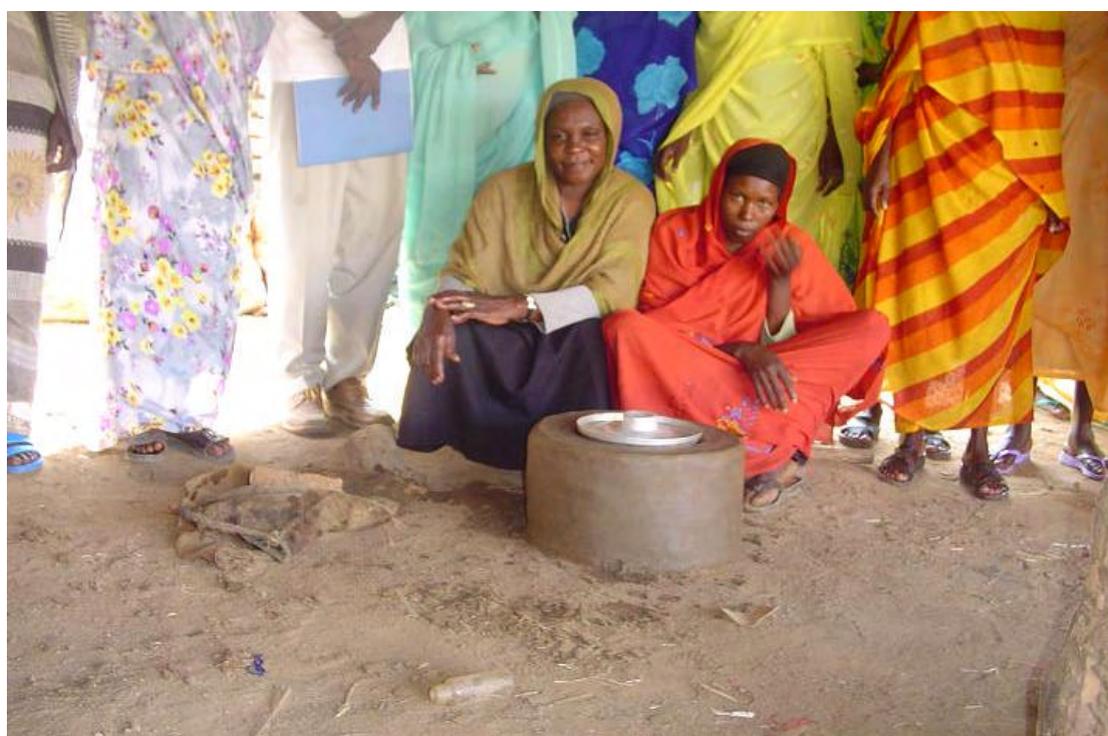


Table 20: Fuel efficient stoves TOTs and beneficiaries

Location	Period Sep - Dec	# of TOTs	# beneficiaries
Kebkabiya	Sep. – Dec 3, 2005	15	607
Kebkabiya	4–8 Dec.	15	218
Kebkabiya	11-15 Dec.	48	418
Kebkabiya	18-22 Dec	48	470
Kebkabiya	25-29 Dec	48	437
		Total 2005	2,150
Location	Period Jan.	# of TOTs	# beneficiaries
Kebkabiya	1-5 Jan.	48	480
Saraf Omra	1-5 Jan	36	300
Kebkabiya	15-19 Jan	35	334
Saraf Omra	15-19 Jan	36	287
Kebkabiya	22-26 Jan	38	340
Saraf Omra	22-26 Jan	36	319

		Total January	2,060
Location	Period Feb.	# TOTs	# beneficiaries
Kebkabiya	29 Jan-2 Feb.	48	374
Saraf Omra	29 Jan-2 Feb	36	300
Kebkabiya	5-9 Feb	48	409
Saraf Omra	5-9 Feb	36	300
Kebkabiya	12-16 Feb	48	468
Saraf Omra	12-16 Feb	36	300
Kebkabiya	19-23 Feb	48	453
Saraf Omra	19-23 Feb	36	300
Kebkabiya	26 Feb-March 2	48	410
Saraf Omra	26 Feb-March 2	36	300
		Total February	3,614
Location	Period March	# TOTs	# Beneficiaries
Kebkabiya	5-9 March	48	503
Saraf Omra	5-9 March	36	300
Kebkabiya	12-16 March	48	487
Saraf Omra	12-16 March	36	300
Kebkabiya	19-23 March	48	473
Saraf Omra	19-23 March	36	350
Kebkabiya	26-30 March	48	450
Saraf Omra	26-30 March	36	343
		Total March	3,206
		Grand Total	11,030

During June and July 2005, RI jointly with ITDG (now Practical Action) trained 50 TOTs on FES technology. The initial RI plan of training TOTs and then using individual TOTs in a cascade/replication effect among the communities proved to be ineffective and the communities and TOTs requested a training center. The first training center counted with 5 TOTs and trained a maximum of 50 beneficiaries per week. Progressively, four other centers were opened between September and November 2005. In December, five new centers were opened in Kebkabiya.



FES Training Center

In December and January, the three TOT monitors trained 36 new TOTs in Saraf Omra and seven centers were opened in Saraf Omra instead of the five initially planned. A high demand for training and the pressure from the community are the main reasons behind this expansion.

The monthly impact assessment conducted in January 2005 showed high use rate of the fuel efficient stoves and sharing of the knowledge use of the learnt technology among communities in addition to influencing others. All beneficiaries participating in the FES training benefited additionally from the protection/gender based violence awareness and sensitization sessions as well as from basic psychosocial and emotional support trainings.

Alternative Fuel Research

The Alternative Fuel Study (AFS) survey was carried out during October and November 2005 with the objective to conduct a household energy study among the IDPs and host populations, mainly in RI operational areas in Kebkabiya, Tawilla, and Kafod. The unit of measure was the household and the total sample size was 350 households. The survey captured information on trends in cooking energy/consumption, sources of supply, distances currently traveled by women during firewood collection, gender based threat data, and GBV risk/mitigation recommendations from respondents from a protection perspective.



FES Training Center

The study clearly demonstrated that the IDPs and the affected population in North Darfur lack access to adequate supplies of fuel, mainly for cooking. The study highlighted the following:

1. Agricultural residues: The use of agricultural residues as a household fuel is rarely practiced in Darfur. The main agricultural residue is the

millet stalk which is used as a building material and a source of income when it is an excess/surplus of families needs. Animal dung is rarely available in sufficient quantities.

2. Petroleum products: These are rather expensive in Darfur because of high transport costs. The insecurity in the region Has also made the supplies irregular. The use of petroleum products as a household fuel in the IDP camps also presents a great fire hazard.
3. Solar cookers: The use of solar cookers was undertaken by many companies and organizations but their use did not continue for long time. The maintenance and frequent replacement of the reflecting surface were the reasons behind the non-sustainability of the system. It has been proved that the solar cookers are not appropriate for Sudanese cooking habits and culture.
4. Improved stoves: To date the introduction of improved mud stoves in the IDP camps has proved to be a great success. The stoves are efficient, fuel saving up to 490%, simple to use, easy to manufacture (from locally available material such as clay and dung), can be made by beneficiaries and is cheap.

The study showed that above 80% of the households in Kebkabiya and Abu Shock camp are using the improved stoves continuously and are highly satisfied. The households also claimed that they will make further use of the stoves when returning back to their original homes. In Kebkabiya, some IDP women are generating income from selling the improved mud stoves in the town market.

Objective: 5 Food Security

To increase food security and household wealth by promoting health and productivity of the existing and new livestock



RI Vet. Officer during Vaccination

Number of beneficiaries reached: 75,315

During the first quarter of the project, RI identified 25 people in Kebkabiya who received a Community Animal Health worker basic training course. In September, 2005 RI received 50 sacks of cattle feeds from FAO distributed to 50 families. The feed were specifically intended to boost milk production in cows. RI CAHWs monitored the amount of milk produced in comparison with the production levels before the distribution of these feed. Results showed that the amount of milk produced by the cows after the distribution of feed has increased to more than double after the distribution.



RI CAHW at work

Five animal health treatment centers in Kebkabiya and one animal health treatment center in Saraf Omra are running normally. As RI animal treatment centers in Kebkabiya, there was an increase in the number of animals coming from outside of Kebkabiya town for treatment. The major animal health problems are diarrhea, respiratory infections, wounds, and chicken ticks which have been increasing during the third quarter of the program implementation period. RI veterinary doctors analyzed and reported a new contagious disease called sheep pox to the official authorities.

During the program implementation period, a total of 38,639 Animals including donkeys, horses, sheep, goats, cattle, camels, and chickens were treated in the five animal treatment centers in Kebkabiya. The only source of drugs to the animal treatment centers is FAO. FAO's list of drugs does not include all the needed drugs and usually FAO ran out of stock leading to shortage of drugs in the treatment centers. Fifteen Community Animal Health workers (CAHWs) participated in a two-week intensive training organized by the FAO and Ministry of Animal Resource in North Darfur State.

RI participated in the mass vaccination organized by the veterinary department in Kebkabiya. RI support was in the form of availing vaccinators, supervisory teams, and provision of vehicles.

Table 21: showing statistics of livestock treatment in Kebkabiya January 2006

	Donkey	Sheep	Goats	Cattle	Horse	Camel	Chicken	Total
Resp. disease	350	102	406	138	36	1	72	1105
De-worming	843	602	1975	103	31	2	20	3576
Wounds	233	23	41	11	13	0	0	321
Diarrhea	7	293	38	31	0	0	2561	2930
Mange	12	26	77	0	6	8	36	165
Ticks infection	0	0	0	0	0	0	95	95
Coryza	0	0	0	0	0	0	110	110
Eye infection	1	0	0	0	0	0	0	1
Lameness	2	0	0	0	0	0	0	2
Total	1448	1046	2537	283	86	11	1894	8305



RI animal health treatment center

Table 22: showing statistics of livestock treatment in Kebkabiya during March, 06

Type of disease	Donkey	Sheep	Goats	Cattle	Horse	Camel	Chicken	Total
Resp. infection	52	27	135	7	6	2	84	313
De-worming	1244	515	1264	82	36	2	1167	4310
Wounds	106	7	8	8	13	0	0	142

Diarrhea	69	7	61	6	3	0	3119	3265
Mange	1	27	32	2	0	14	33	109
Coryza	0	0	0	0	0	0	137	137
Ring-worms	4	27	30	0	0	0	28	89
Total	1476	610	1530	105	58	18	4568	8365



RI CAHW treating Donkey

Fodder Collection

Four fodder centers have been selected and constructed by the community. Fodder collection is supposed to start before rainy seasons before the prices to get high. RI was delayed in fodder collection till last December due to security reasons. At the end of February, 2006 RI had completed fodder collection. A total of 4,500 donkeys will benefit from this fodder in and around Kebkabiya town.

Fodder Collection

Cost Sharing

Relief International continues to have formal co-funding/cost-sharing agreements with several agencies. Negotiations for continued cost-sharing with these agencies and others went into advanced stages. The sections below briefly describe the agreements with all relevant co-funding/cost-sharing partners.

1. WFP General Food Rations, Supplementary feeding and Funding Support

RI currently has an agreement with WFP to meet the basic food needs of 40,000 beneficiaries. WFP is also contributing a cost-share amount of \$43,340 for program operation costs. The RI country team in Sudan is in advanced negotiations with the head of WFP field office in North Darfur as well as WFP representative in Khartoum regarding the needs for the general food distribution

and for supplementary feeding materials for the continuation of the nutritional programs in Kafod and Tawilla. WFP has indicated their willingness to support RI's activities in these areas with in-kind and cash outputs in 2006. In 2005, assistance was provided as per the ration chart below (Table 23).

Unfortunately, WFP is no longer able to provide in-kind assistance in the form of free flights for humanitarian workers traveling to and from Darfur. A fee of \$100 per one way ticket is now charged. The helicopters that transport aid workers to the villages from El Fasher similarly carry a fee of \$20 per trip. These Helicopters are essential especially when roads are inaccessible due to insecurity.

Table 23 : WFP food rations per person per day in grams

Commodities	General Distribution/FFR	Therapeutic Supplementary feeding	Targeted supplementary feeding	Emergency school feeding
Cereals	450	-	-	100
Pulses	50	-	-	20
Vegetable oil	30	15	20	15
Salt	10	-	-	5
Sugar	25	10	20	10
Fortified blended	50	100	200	50
Total	615	125	240	200
Nutrition				
Kcal	2,225.5	552.8	1.017	731.3
Proteins	69.5	18	36	22.9
Fat	47.1	21	32	20.9

2. UNICEF: Health Supplies and Women Protection Funding

UNICEF Sudan maintains large quantities of medical supplies as stock in Khartoum and Darfurs to provide to implementing partners in health. As a result, the RI country team in Sudan has obtained assistance from UNICEF to address the needs for the basic health materials for health interventions in rural El Fasher, Tawilla, and other locations. In addition, UNICEF has granted \$154,456 towards the support of RI's women and girls protection programs, which promotes the manufacture and usage of fuel-efficient stoves and the provision of psychosocial support.

3. WCRWC/MISP: Reproductive Health Funding

The Women's Commission for Refugee Women and Children awarded a grant in the amount of \$86,820 to Relief International in Darfur. The Minimum Initiative Service Package (MISP) contribution is geared towards harmonizing reproductive health activities among agencies in North Darfur, training of Community Health Workers and reducing HIV/AIDS transmission

4. UNJLC: Non-Food Items

In 2005, RI received in-kind assistance from UNJLC in the form of NFI distribution and logistical support. The RI country team in Sudan is in constant contact with UNJLC regarding general relief commodity distribution in North Darfur. However, it is known at this stage that UNJLC is no longer able to provide cargo plane transportation to INGOs.

5. Food and agriculture Organization (FAO) Donkey Fodder and Funding

Many of the activities included in the program are based upon initial pilot projects supported by FAO in North Darfur. These include pilot chicken restocking, donkey veterinary support, and fuel efficient stoves training projects in the area of Kebkabiya, North Darfur. RI has received in-kind donations from FAO for certain activities within the IHIGS project, namely donkey veterinary support and Community Animal Health Workers (CAHWs) training. Funding in the amount of \$50,000 was also contributed towards program costs and a total cash value of over \$32,676 in in-kind support.

5. Medical Supplies and Drugs

RI has been able to procure in-kind contributions of medical supplies and drugs through UNICEF and WHO. However, a non-profit partner organization, Counterpart, has also been providing medical supplies necessary to top-up the existing inventory. The drugs and equipment have been purchased at grossly subsidized rates for humanitarian purposes.

Summary of the main achievements

- Conduction of the demographic baseline survey at the start of the project, midterm review in the middle of the project, and end project evaluation.
- Increased access to primary health care services to 65,563 beneficiaries.
- Established an effective emergency response team.
- Strengthen Health information system.
- Established a referral system for critically sick patients.
- Conduction of two nutrition surveys in Tawilla and Kafod areas during November 2005 and March 2006 respectively.
- Established five supplementary feeding centers, outpatient therapeutic feeding programs, and pregnant and lactating programs.
- Distribution of 2333, 08 MT of food in Kafod area to 34,874 beneficiaries during September and November 2005.
- Distribution of relief commodities to 63, 596 beneficiaries.
- Distribution of 10,000 egg-laying hens to 2000 beneficiaries.
- 38,639 animals treated in the 5 RI veterinary clinics in Kebkabiya and one veterinary clinic in Saraf Omra.
- The alternative fuel research study was conducted.
- 11,030 direct beneficiaries were trained on Fuel Efficient Stove (FES) technology.
- Establishing 16 community committees in Kebkabiya.
- 4,000 donkeys will be benefited from fodder collection program.

Constraints

Security has been major limiting factor to accomplish the program activities within the timeline. RI and other INGOs operate in an environment subject to frequent conflict and subsequent delays in activities due to evacuation of staff and loss of inputs. IHIGS program activities are situated in areas partly under control of the GoS and partly controlled by the SLA and JEM. This means that local and expatriate staff need internal permits from HAC to move on a day to day basis, while at the same time remain at risk of attack by militia from either side at any time. HAC is increasingly exerting control over the work permits of expatriate staff and the hiring of local staff. Loss of time taken to sort out fees, work permits, and internal travel permits has impacted negatively on the budgets of the program. There is also a challenge faced by all INGOs in sourcing and retaining suitable expatriate staff. This is evidenced in a tremendous turnover of

staff, which in turn disrupts programs and affects project efficiency. The unresolved issue of bringing in UN peacekeepers or not to supplement the efforts by the AU has also contributed to the sense of insecurity amongst expatriate and national staff.

IHIGS was implemented within this environment of conflict and uncertainty. From its onset in March 2005, incidents have been regular. For example, in April 2005, there were cases of robbery and looting of trucks, including UN lorries. Mobile clinics were also regularly cancelled due to fighting and hijacking of a vehicle in January 2006. In the same month, vaccination of children and safe motherhood consultations were seriously affected when Tawilla town was attacked and most of the citizens left the town. As recently as March 2006, a vehicle used by the nutrition team was hijacked in Tawilla environs and planned health activities for Kafod were suspended due to heavy fighting there.

During the program implementation period, Tawilla has been highly volatile and RI staff members were evacuated five times with suspending all activities. Field access due to security concerns has always been a problem in Tawilla as well as other parts of the program area including Saraf Omra. This affected the program negatively in terms of limited community mobilization and dynamic movement of the population. Given the situation and these factors, the program was given three months no cost extension.

Conclusion

The IHIGS project was deemed satisfactory and successful at internal final review. In spite of all constraints and security concerns throughout the implementation period, the program activities have established several milestones. Based on success and lessons learned from the IHIGS I program, RI is currently implementing IHIGS II in North Darfur, funded by OFDA- USAID.