

# Food Security

Ensuring food to malnourished children  
in villages of Eritrea



2014



## 1. TITLE PAGE

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Ensuring food to malnourished children in villages of Eritrea.

### SPONSOR

Gruppo Aleimar Onlus (**Aleimar**)  
Via Curiel 21/D  
20066 Melzo (MI), Italy

### PARTNER

Daughters of St. Anne Institute, Province of Eritrea (**DSA**)  
Str. 176-7, nr. 4 - P.O.Box 809  
Asmara – Eritrea

### PROJECT MANAGER

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### BENEFICIARIES

523 children

### TOTAL AMOUNT

140.500 U\$

### AMOUNT REQUESTED

39,500 U\$

### TIME REQUIRED

9 months

Scheduled start: October 2014

Completion: June 2015

## 2. SUMMARY

In the past five years the Sisters of the Daughters of St. Anne Institute (DSA), in Eritrea, saved 1900 children from severe and very severe malnutrition, which considerably compromised their health.

For the second consecutive year the report published jointly by the *International Food Policy Research Institute*, *Concern Worldwide* and *Welthungerhilfe* on the situation of hunger world-wide, based on the figures for 2012, puts Eritrea as one of the three countries in which the situation is extremely alarming, with 50% of the population undernourished and the global hunger index (GHI) above 30%<sup>1</sup>.

DSA knew that, since they live and operate locally, but there was no statistical evidence. As in the previous years the Sisters continue the screening of children who arrive at their health centres with problems of malnutrition, and note that the global situation is not improving, even though in some areas it is changing.

DSA decided to concentrate their efforts especially in Abo, Dankalia, which is the village with the greatest problems because of the continuing famine, partly due to a violent tornado that hit the region in the middle of the year; to continue helping in Tokonda and to a lesser extent in Zagher; to stop the programme in Digsä and to start it in another village, Akkur.

A total of 523 children are affected, and for nine months they will be given the same mix of nutrients, in quality and quantity, as in 2013/14. The Sisters shall continue to give their families some sheep, on completion of the treatment, when they will be released after having reached 86.5% of the standard index of malnutrition.

DSA is confident that they can obtain a large quantity of the DMK supplementary food from the governmental factory, which will keep the price down.

DSA is also confident that they can continue, or even improve, the policy of revaluing the local currency, which will enable them to reduce the cost per child.

Based on these assumptions DSA expect to spend approximately U\$140,500 that is U\$ 270 per child.

DSA will contribute U\$ 9,000, Aleimar U\$ 20,000, other partners have already pledged U\$ 101,000, so we require a contribution of U\$ 39,500, which will cover the purchasing costs of the DMK.

The program will run from October 2014 to June 2015.

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<sup>1</sup> Global Hunger Index 2013

### 3. INTRODUCTION

#### a. The Country

Eritrea is classified by the United Nations as one of the 20 poorest countries in the world. Here are some figures in comparison with USA (in brackets)<sup>2</sup>:

- Area: 117,600 (9,826,700) sq. km
- Population: 6 (319) million
- Median age: 19 (37) years
- Urban population: 21% (82%)
- Life expectancy at birth: 63 (80) years
- Fertility rate: 4.3 (2.0) live births/woman
- Literacy rate: 69% (99%)
- Average income per capita: 1,200 (52,800) U\$/year
- Availability of drinking water: 61% (100%)
- Human Development Index: 181<sup>th</sup> (3<sup>rd</sup>) position



#### b. The Sponsor

The Gruppo Aleimar Onlus (Aleimar) is a no-profit organization which, through distance support and development projects, cares for children in difficulty (street children, orphans, abandoned, refugees) without distinction of sex, religion, race and culture.

Established in 1983 in Melzo, close to Milan in northern Italy, the Aleimar Group is active today in 11 countries with more than 50 projects and takes care directly of 600 children and, indirectly, of other 2,500 children that they follow within their projects.

The main areas of Aleimar development projects are:

- Education: taking charge of children in family (natural or adoptive), in foster homes and shelters, schooling and vocational training.

<sup>2</sup> CIA – The World Factbook

- Health and hygiene awareness: support to clinics and/or hospitals, funding of surgical operations, seminars for young mothers.
- Women promotion: start-up of agriculture and livestock, creation of production cooperatives, micro-credit financing.
- Rural villages' development: water well, kindergarten, solar energy for light and water pumps.
- Women' refuge and social housing for families in temporary need.

The Group comprises Aleimar for overseas project; Tuendele for Italian projects and Prema, a cooperative for mentally disabled youth.

Its annual turnover is abt.1,3 million U\$ and overhead cost is less than 10%.

### **c. The Partner**

The religious congregation Daughters of St. Anne (DSA) has been working in Eritrea, as a Province of the Italian congregation, since 1886.

It currently has 170 Sisters, all Eritreans, who operate in 22 missions on the territory, and other 35 Sisters involved in foreign missions of the Congregation, which is present in five continents.

In their communities in Eritrea they manage the following activities:

- 6 health centers
- 24 kindergartens
- 6 primary schools
- 14 women promotion centers
- 3 orphanages
- 18 pastoral centers

Besides they are active in the following social and development works in the villages:

- Support of needy children
- Food security programs for malnourished children
- Health oriented courses for young mothers
- Construction and refurbishment of schools
- Construction and widening of clinics and dispensaries
- Drilling of water wells
- Solar installation for water pumping and house lightning
- Building eco-friendly ovens for home cooking bread
- Setting up small family farming activities

#### 4. DESCRIPTION OF THE PROBLEM

Children are those mostly affected by famine because they need a balanced diet of macro and micro nutrients. Without this diet, they show immediate signs of malnutrition, such as swelling of the face, belly, hands and feet or they even reduce to a skeleton and, as a result, they suffer from chronic diseases. According to the WHO<sup>3</sup> malnutrition is due to a prevailing consumption of carbohydrates (corn, wheat, sorghum) and, consequently, to a diet low in proteins, fat and vitamins. Therefore a child is malnourished if his diet doesn't provide him adequate calories, proteins and micro-nutrients for his growth.

Malnutrition easily provokes other diseases by lowering the immune system and it puts life itself into risk, children's life above all. There are other correlated causes, such as shortage of health services and household assistance. In Eritrea the main cause is the fragility of the social security systems in front of recurring emergencies (drought, migrations, and conflicts).

The human and economic costs of malnutrition are enormous and they fall upon the poorest families as well as upon women and not-enough-protected children since husbands and fathers are often absent for long periods of military service.

The Global Hunger Index (GHI) covering 2008-2012 shows that levels of hunger are still "alarming" or "extremely alarming" in 19 countries. The worst conditions in 2012 were found in Burundi, the Comoros and Eritrea. In these countries the GHI is above 30% and 50% of the population is undernourished.

In Eritrea the situation continues to worsen, with both adverse climatic conditions, with scarce and inconsistent rainfall, and poor social and political conditions, which hinder development in the country. Thousands of young people continue to flee from forced conscription for an indefinite period, abandoning families and fields; inflation and prices follow the trend of the increasingly high 'parallel' exchange rate, which is an index of a lack of faith in the country's economy, and erode the purchasing power of salaries, which have hardly risen for a decade; the electricity supply is irregular and is cut off without warning, sometimes for whole days, which seriously damages industrial output; in the main cities drinking water is scarce and there is a flourishing black market for everything from food to building materials, with the government making no effort to control prices.

In these circumstances survival is dependent on remittances from relatives abroad and on the cycle of the rains, which is increasingly unreliable.

Thus famine and hunger are always lying in wait.

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<sup>3</sup> World Health Organization

## **5. PURPOSE AND GOALS**

The purpose of the program is to bring malnourished children, selected in the four villages, to recover weight and health in nine months.

The goal is to reduce malnutrition from 70% to 86,5% of the standard index, a level which, according to the Sisters experience, protects children from possible relapses.

## **6. BENEFICIARIES**

Target group: 523 children below the age of 5 coming from the villages of Abo, Akrur, Tokonda and Zagher.

Final beneficiaries: about 2500, the members of the children families.

## **7. METHODS**

In view of the results of the Food Security Program conducted in 2013/14 and the weather conditions that have occurred in the area, DSA decided to continue the program in the following villages:

### **ABO**

It is located 35 km from Assab, in Dankalia, the extreme south of Eritrea, in a very hot semi-desert area, with very little annual rainfall. The estimated population is about 2500 people, 100% Afar Muslim. In Abo the Sisters run a clinic, a kindergarten and woman promotion activities.

Apart Abo, the clinic is the reference point and support for nine villages with 5500 inhabitants, some of them 60 kilometers far away from Abo. The Sisters visit them once a month to provide vaccinations and weight controls.

This program has been ongoing since 2010 and till now 425 children have been treated.

The whole area has suffered from serious drought this year (even the goats were dying for lack of vegetation), and in there was a violent tornado that swept the poor tents made of mats, their homes, destroying half of them along with the food supplies.

The brief and violent rains did more harm than good. Communication with Asmara (nearly 900 km) is only over land and a large section of the road is in poor condition so that it is even difficult to provide aid, which is not readily available locally.

The Sisters did the screening of 850 children and found 361 of them malnourished, and they have already started treatment.



## TOKONDA

It is a highland village, in the Debub region, 118 km far from Asmara. Its population belongs to two different ethnic groups: Tigrigna (Coptic Christian) and Saho (Muslim). In Tokonda the Sisters run a clinic, a kindergarten and woman promotion activities.

There are around 2300 people, but many others come to the clinic from near villages. The population is devoted to agriculture (corn, barley) and to sheep farming, but Tokonda has been suffering the absence of rains for six years; the harvest has been very poor and consequent famine struck children below the age of five above all.

This program has been ongoing since 2009 and till now 604 children have been treated.

The Sisters screened 580 children and recorded 92 cases as malnourished.

## ZAGHER

Zagher is a village of the highlands, in the Maakel region, 38 km away from Asmara. Its population belongs to the Tigrigna ethnic group (Coptic Christian).

The population is 4500 and people are engaged in stock-farming and agriculture (potatoes, corn, and barley). The recent rains, which were late, aided the ripening of cereals in the land around the village. However there is still the ban on accessing the lowlands so the harvest, although decent, will not be enough to last until the new harvesting season.

The clinic run by the Sisters is a reference point for 3000 people more, who arrive from the near villages of Dekseb and Deferrè.

This program has been ongoing since 2009 and till now 519 children have been treated.

However, the mothers of Zagher, thanks to the training held by the Sisters through their workshops, have learnt the lesson well and come to the clinic when the first signs of malnutrition start appearing in their children, thus making it easier to treat them.

The Sisters plan to bring into the 2015 program only those children who present severe symptoms of malnutrition, especially coming from the lowlands where there are Tigre (Muslims) with little education in nutrition.

They expect to treat 30 children.

## AKRUR

It is a highland village at 78 km from Asmara, with a population of 2300 people, shepherds and subsistence farmers (tomatoes, sorghum). The Sisters run a clinic, a kindergarten and woman promotion activities.

After three years of regular rainfall, this year in Akzur and neighboring villages, for a total of 5000 people, it has rained very little and the cereal harvest has been very poor. Mothers with babies with clear signs of malnutrition are beginning to show up at the clinic.

The same program was carried out in 2010 for 67 children and the Sisters are expecting to treat 40 in 2015.

Abo Health Center



Akzur Health Center



Tokonda Health Center



Zagher Health Center



From the screening carried out in DSA's health centers, 453 children have already been identified as malnourished : other 70 are under examination.

The "very serious" ones have a weight/height ratio which is less than 70% of the WHO standard index. The diagnosis, moreover, is also made on the basis of a visible severe deterioration or the presence of edema. After six months and up to the age of five years, children's arm circumference is measured (MUAC<sup>4</sup>): if it is less than 115 mms it is a sign of acute malnutrition and it determines a high risk of

<sup>4</sup> Malnourished Upper Arm Circumference

death. In case of severe malnutrition, children are carefully followed by running a weekly monitoring of growth and development of associated diseases, for a period of one month. In case of serious diseases, the child is checked in hospital and, at worst, hospitalized.

When the child overcomes diseases associated with malnutrition, he/she gets a check-up every two weeks in order to control the growth in weight and height. When he/she reaches 80.1% of the standard index (moderate malnutrition) he/she is subject to a check-up once a month. After the check-up, he/she is given the monthly ration of DMK, oil and milk according to expected consumptions. DMK is composed of grains, peanuts, beans and chick peas, sun flower oil, sugar and salt.

The experience of the Sisters showed that this approach is useful not only to the child but also to his mother. Following the different phases of check-up and being aware of the deviations from the standard values, shown with different colors (red = very severe; yellow = severe; blue = moderate; green = good), mothers are emotionally involved in the recovery of their child: they proudly show the progress achieved when the color indicates improvement, as well as they feel ashamed when the color shows a worsening.

When the child reaches 86,5% of the standard value, he/she is discharged and the neediest families get a sheep or goat to ensure milk and avoid relapses.

The program is all year round, that is when a child reaches the safe level – which could happen before nine months - he is discharged, but a new one takes over, from the long waiting list of suffering children.

## 8. BUDGET

### a. Consumption

The program is foreseen to last nine months, with the same unit consumption as last year, as shown in the following table:

Age	MONTHLY UNIT CONSUMPTION				
	Children Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr
Less than 24 months	181	3	1	2	90
2-5 years	342	6	1	3	68
Total	523	4.96	1.00	2.65	158

According to the unit consumption reported on the previous table, the total consumption will result as follows:

CONSUMPTION	ABO					AKRUR				
Age	Child Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Child Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr
Less than 24 months	124	3348	1116	2232	62	15	405	135	270	7
2-5 years	237	12798	2133	6399	47	25	1350	225	675	5
Total	361	16146	3249	8631	109	40	1755	360	945	12

CONSUMPTION	TOKONDA					ZAGHER				
Age	Child Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Child Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr
Less than 24 months	32	864	288	576	16	10	270	90	180	5
2-5 years	60	3240	540	1620	12	20	1080	180	540	4
Total	92	4104	828	2196	28	30	1350	270	720	9

CONSUMPTION	TOTAL				
Age	Child Nr	DMK Kg	Oil Litre	Milk Kg	Sheep Nr
Less than 24 months	181	4887	1629	3528	90
2-5 years	342	18468	3078	9234	68
Total	523	23355	4707	12492	158

## b. Cost

Price of food rose a lot this year because inflation is out of control. Only a few companies, controlled by the government, are authorized to import and distribute goods to wholesalers: this situation reduces competition and forces retailers to continually increase the sales price. Furthermore there is a strong black market where prices are based on the real exchange rate of the hard currency, which is three times higher than the official one. For this reason prices are still rising and it is difficult to meet expectations.

DSA centralized purchases in Asmara, also for all health centers, including Abo, despite the high shipping cost.

DSA expect to be still able to buy at least 60% of DMK from the governmental factory, the rest from private factories, as last year, with a cost of:

DMK COST			
	Kg	Nkf/kg	Nkf
Governmental factory	15000	36,00	540000
Private factory	8500	78,00	663000
Total	23500	51,20	1203000
Transportation to ABO		30,00	
Transp. to other villages		8,00	

Due to the different price of transportation, the DMK cost for Abo is 81,20 Nkf/kg, while for other destinations is 59,20 Nkf/kg.

DSA expects to pay the same price as last year for oil and milk (80 Nkf/kg and 270 Nkf/kg respectively): they are trying to buy locally the milk assigned to Abo, so as to save on transportation.

Concerning the sheep, DSA will be able to keep the same average cost in Euro as last year, even if they expect a rise in Nakfa. This is because they trust in a further optimization of the exchange rate.

The estimated cost for each village is reported in the following tables:

COST	ABO					AKRUR				
	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Total	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Total
Quantity	16146	3249	8631	109		1755	360	945	12	
Unit cost U\$	1,85	1,82	6,14	100,00		1,35	1,82	6,14	100,00	
Total cost U\$	29794	5907	52963	10900	99564	2361	655	5799	1200	10014

COST	TOKONDA					ZAGHER				
	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Total	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Total
Quantity	4104	828	2196	28		1350	270	720	9	
Unit cost U\$	1.35	1.82	6.14	100.00		1.35	1.82	6.14	100.00	
Total cost U\$	5521	1505	13475	2800	23302	1816	491	4418	900	7625

COST	TOTAL				
	DMK Kg	Oil Litre	Milk Kg	Sheep Nr	Total
Quantity	23355	4707	12492	158	
Unit cost U\$	1.69	1.82	6.14	100.00	
Total cost U\$	39492	8558	76655	15800	140505
Cost per child U\$	76	16	147	30	269

### c. Income

Aleimar has presented the project to other partners and the financial coverage as is as follows:

• Aleimar Group	20,000 U\$
• Daughters of St. Anne Institute	9,000 U\$
• Other donors pledged contribution	<u>72,000 U\$</u>
• <b>TOTAL INCOME</b>	<b>101,000 U\$</b>

**BALANCE TO BE COVERED (U\$) 39,500 U\$**

**The balance will cover the purchasing costs of the DMK.**

A summarized Financial Plan of the Project is annexed.

## 9. SUSTAINABILITY

Past experience shows that the program really works, because mothers have learned how to use in a balanced way the little food available and 98% of their children have not relapsed in malnutrition.

## 10. EVALUATION

At the end of the nine month treatment, the Sisters should be able to discharge 98% of the 523 children, who reached 86,5% of the standard index of malnutrition.

The remaining 2% will be further treated, until all of them are healed.

## 11. RISK ANALYSIS

The only risk is that DSA is not able to purchase DMK from the governmental factory in the foreseen quantity; hence they have to pay more for it.

Since this is an all year round program (when a child is discharged, a new one takes over), the extra cost may limit the capability of the Sisters to accept new malnourished children for the treatment.

## 12. DETAILS OF ORGANIZATIONS

	<b>Sponsor</b>	<b>Partner</b>
<b>Name</b>	Gruppo Aleimar Onlus	Daughters of St. Anne Institute
<b>Legal status</b>	Non-profit organization	Religious congregation
<b>Legal representative and title</b>	Elena De Ponti President	Sr. Abrehet Solomon Provincial Superior
<b>Address</b>	Via Curiel 21/D 20066 Melzo (MI) Italy Tel.: +39 0295737958 Fax.: +39 0295712273	Str. 176-7, n° 4 P.O.Box 809 Asmara – Eritrea Tel. +2911 120719 Fax.: +2911 201267
<b>Website &amp; Email</b>	www.aleimar.it info@aleimar.it	fsaeritrea@gmail.com
<b>Fiscal code</b>	91526820153	
<b>Year of establishment</b>	1983	1886
<b>Staff</b>	5 employees 110 volunteers	160 Sisters
<b>Mission</b>	Helping children in need, abandoned or lacking support or with families at risk	Education, health care, welfare, women's development, pastoral care
<b>Countries of operation</b>	Benin, Brazil, Colombia, Congo, Eritrea, India, Israel, Lebanon, Palestine, Zambia	Eritrea, South Sudan
<b>Recent experience in similar projects</b>	<ul style="list-style-type: none"> <li>• Providing food for small children in orphanages in Benin</li> <li>• Cooperating in the same project in Eritrea</li> </ul>	<ul style="list-style-type: none"> <li>• Developing yearly this program since 2009</li> </ul>

### ○ SPONSOR'S BANK COORDINATES

**Account holder:** Gruppo Aleimar Onlus  
**Bank:** Banca Prossima (Intesa San Paolo Group)  
 Piazza Ferrari 10, 20121 Milano, I  
**Account number:** IBAN IT69U0335901600100000100565  
 SWIFT BCITITMX



**The “flying” nurse looking for house-to-house patients**

