



Child Malnutrition in Chad It's Time to Act

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Introduction

The Sahelian belt of Chad suffers from chronic food insecurity. Regularly affected by poor cereal production due to adverse weather and inadequate rainfall, inhabitants are resilient but vulnerable. For many years, the rate of acute malnutrition has been worrying.

This year it will be even worse, and a cause for concern is slipping into an emergency. A “nutritional crisis” is under way. That means more than a hundred thousand children between 6 months and 59 months will need treatment for severe malnutrition. This year, many more will need supplementary food for the lean season which started earlier and is hitting harder. People have already used their hoarded grain, and many men have left north-western regions seeking work elsewhere to provide for their families. As always, children will be the first ones to suffer and, if nothing is done, they will be the first to die.

The current nutritional crisis in the Sahelian belt of Chad is the result of many factors – climate change, food insecurity, poor access to health services, insufficient access to safe drinking water and inappropriate infant and young child feeding practices.

UNICEF and its partners have scaled up relief actions and UNICEF is providing therapeutic foods. In addition, the Ministry of Health’s capacity to respond to the crisis is being strengthened while support is being given that enables hard pressed health workers to deliver a minimum package of health and nutritional interventions. The strategy being put in place with UNICEF guidance and support calls also for the detection and referral of malnourished children at health facilities treatment of severe acute malnutrition (SAM), the promotion of key family behaviours, And other key actions revolving around the provision of crucial micronutrients and promoting the washing of hands, using clean water and having adequate sanitation provision.

The strategy being put in place by Government of Chad with the technical assistance and support by UNICEF calls also for the screening, detection and referral of malnourished children to health facilities in order to ensure management of severe acute malnutrition (SAM), other key actions such as provision of micronutrients, promotion of hand washing, use of safe water, provision of adequate sanitation, and, finally, key family behaviours.

UNICEF knows **what to do** to save thousands of children. If access to services and supplies is ensured and large scale funding sought, the increasing incidence of malnutrition that kills will be stopped and children lives will be saved.

Another \$9.5 million is needed to bring appropriate relief to children in Chad. Children like Hissène, admitted a few weeks ago in the outpatient nutrition centre of Moussoro town will be driven out the vicious circle of malnutrition ad infection. Hissène is living in Bar-el-Ghazel, in the Sahelian belt of Chad. Eta, his mother, is selling her few goats at give-away prices to feed her family. She does not know how they will make it during the lean season. “We live day by day, and hope. Maybe, if you tell the world what is going on here, they will help us.”

Dr Marzio Babilie, UNICEF Country Representative, Chad

CHAD: TIME TO ACT

“The situation is deteriorating rapidly in Chad, and it is time to act”, says Dr Marzio Babbile, UNICEF Representative. In Chad, 102, 000 children suffering from severe malnutrition will need life-saving treatment in 2010, among whom 50,000 children in the Sahelian belt. But \$9.5 million and many more organisations to work in the field are urgently needed to face the crisis.

UNICEF is currently facing huge challenges in Chad. At present food insecurity is affecting 2 million people¹ and malnutrition is rising among children under five.

A growing deterioration

For many years, the rate of acute malnutrition Chad's Sahel belt has been above acceptable thresholds. The area is vast and



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extends from the borders of Niger to Sudan. Malnutrition is not only the consequence of food insecurity, but is linked to a series of other factors such as poor access to health services, insufficient access to safe drinking water, inappropriate infant and young child feeding practices and the fact that there are not enough trained staff in areas to provide proper assistance. In these circumstances outbreaks of epidemic diseases such as measles and meningitis will undoubtedly cause more infants to die as such illnesses are far more serious for a child who is suffering from malnutrition. In 2009, the WFP survey reported rate of global acute malnutrition in two of the remotest of the Sahel regions of the country, ranging from 25.3% in Batha to 19.9% in Lac. This situation has deteriorated even further since then. The population has been faced with two years of bad crops, recurrent epidemics, escalating food prices and weak institutional capacity to respond to the needs of the population. In February, the ministry of health declared an epidemic of measles in two regions of the Sahel, including Kanem. The outbreaks have compounded an already serious situation.

Erratic and decreasing rainfalls since 2007

In 2009 the harvests were poor in the Sahelian belt. In the recent past, these regions have increasingly suffered from poor rains. The rainfall registered in 2009 in Kanem was 52 percent lower than that of 2007 leading to a drop in cereal harvest by almost 83 percent.

A recent ECHO mission in Sahel region observed increasing scarcity and rising prices of food on local markets against a backdrop of diminishing purchasing power. Livestock, a major source of livelihood, is being exchanged at give away prices.

¹ According to the ministry of Agriculture
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On the 25th of February, the minister of Agriculture launched an appeal to partners for urgent assistance to the population and their livestock in the most affected areas. The government of Chad has mobilized 23,250 tons of food. Furthermore, the government has promised to provide 350 tons of seeds during the next planting season. Already there have been sizable movements of people from the country to the towns and across borders to other countries. Many of those taking part in this exodus have sold their cattle to survive. Because men are the first to go as they search for work and money women and children now represent 80% of the population in Kanem region...

Increase of malnutrition

In 2009, GAM² and SAM³ among children increased compared to figures collected in 2008. In 2009, over 8,000 children were treated for SAM in the 33 outpatients feeding centres supported by UNICEF in Kanem and Bar-El-Ghazel; in January and February 2010, a deep deterioration of children's nutritional status was observed and 2,560 new admissions were recorded in CNT⁴ and CNA⁵. The level of malnutrition among children in Batha region is not documented, but it is suspected to be at least as bad as it is in Kanem and Bar-el-Ghazel. Overall, it is estimated that 50,000 children aged 6 to 59 months in the Sahelian belt of Chad (Kanem, BEG, Batha, Guera, Lac, Hadjar-Lamis, Dar Sila, Ouaddai) affected by severe acute malnutrition will need therapeutic treatment. UNICEF is targeting another 23, 000 children aged 6 to 23 months who will be at risk of severe acute malnutrition and would need appropriate nutrient supplements during the lean period (May to August). In addition, about 300,000 children in Kanem and BEG must be immunised against measles and provided Vitamin A supplementation along with Mebendazole for de-worming. The overall caseload of SAM in Chad is 100,000 children in 2010.

Emergency response

UNICEF has joined with other development partners to mount an emergency response. 73 out-patient treatment centres and 16 in-patient therapeutic feeding centres have been established throughout the country. In 2009, these centres treated up to over 8,000 children for SAM in the Sahelian belt.

In 2010 UNICEF will expand the quality and reach of these interventions. More specifically, UNICEF aims to; (i) increase access to children with SAM by opening new out-patient feeding centres and in-patient therapeutic feeding centres, (ii) train and equip the community volunteers to actively detect early



² GAM for Global acute malnutrition

³ SAM for Severe acute malnutrition

⁴ Centre de nutrition thérapeutique, therapeutic feeding centers

⁵ Centre de nutrition ambulatoire, outpatient feeding centers

and promptly refer SAM for treatment, and (iii) reduce the risk of developing severe acute malnutrition through the distribution of complementary food (Plumpy-do) to children aged 6 to 23 months.

While the capacity of government to treat SAM in the existing outpatient and in-patient treatment facilities is modest, refresher training of staff is necessary to ensure quality outcomes. Likewise, staff in the proposed 48 additional treatment centres that will be opened in 2010 would need to be trained and equipped. In an effort to increase access to quality treatment, UNICEF has already embarked on a process of community mobilization which will be taken to scale. Towards this, community volunteers will be trained and equipped to actively screen, detect and timely refer the children with SAM to the treatment centres. Given the shortage of qualified staff and the importance of adequate treatment of SAM, UNICEF will provide incentives to facility based support staff particularly during the lean period when the case load is expected to increase.

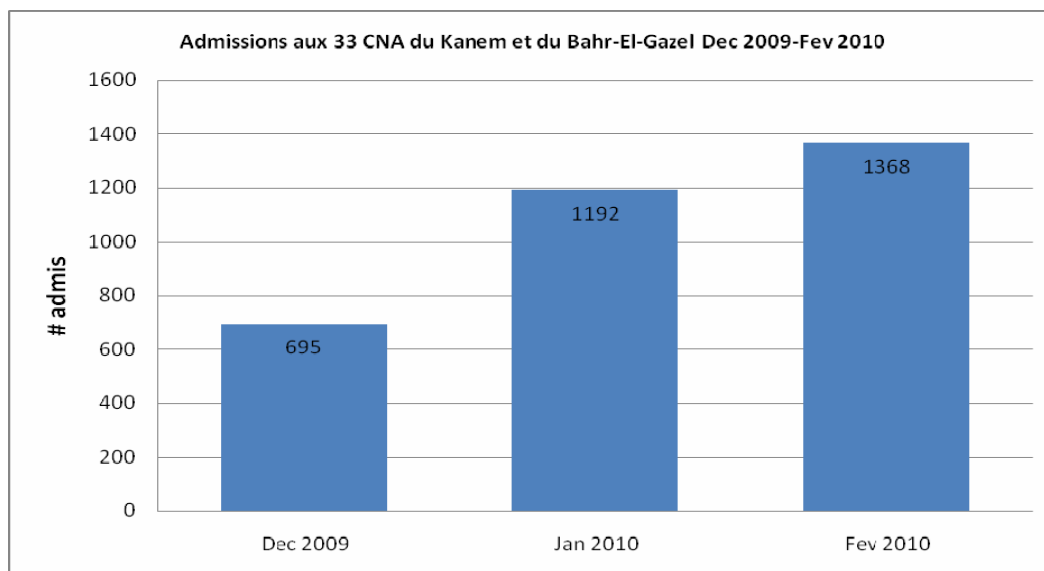
Time to act

Over 100,000 children will receive relief from UNICEF. This emergency response, though critical for the children, is tremendously difficult to implement given the circumstances.

Nowadays, UNICEF lacks funding and enough experienced partner organisations trained personnel to respond to the crisis. Currently, a total of 10 NGOs and UN agencies are working in the sahelian belt of the country (UNICEF, WFP, FAO, WHO, MDM, ACF, Chadian Red-Cross, French Red-Cross, Adra and Africare).

Money is also missing: at least \$2.5 million is needed to purchase therapeutic food as soon as possible and the overall funding gap is over \$10 million. .

Dr Marzio Babilie, UNICEF Representative in the country is clear as he calls for more to be done and for more organisations to become involved: "The situation is deteriorating quickly in Chad, and it is time to act".



Based on interviews with Dr Marzio Babilie – UNICEF Representative, and Roger Sodjinou, nutrition specialist, and on the document: Chad country office proposal, March 2010.

Chad: a sharp deterioration in the Sahelian belt

Food crisis: Niger and the Sahelian regions of Chad and other countries have suffered from poor rainfalls.

- In 2009, the rainfalls in Kanem province in western Chad were 52 percent lower than that of 2007 leading to a drop in cereal harvest by almost 83 percent.
- Recurrent epidemics such as measles, escalating food prices and weak institutional capacity to respond increase vulnerability. 2 million inhabitants of Chad are food insecure this year according to the Government.

Increase of malnutrition: 2 million under five years' old children are living in Chad. 102,000 children suffering from severe malnutrition will need life-saving treatment.

- UNICEF estimates that 50,000 severely malnourished children aged between 6 and 59 months in Kanem, BEG, Batha and Guera, will need therapeutic treatment. 23,000 children aged between 6 to 23 months will need appropriate nutrient supplements. 300,000 children must be immunised against measles and provided with Vitamin A supplementation along with Mebendazole for de-worming in Kanem and BEG. For the whole country, 102,037 children suffering from acute malnutrition will need life-saving treatment in 2010.
- In Chad, malnutrition has been above emergency thresholds for a decade. In 2009, a WFP¹ survey reported acute malnutrition was ranging from 25.3% in the Batha to 19.9% in the Lac.
- In 2009, over 9,000 children were treated for severe and acute malnutrition (SAM) in the 33 outpatient feeding centres supported by UNICEF in Kanem and Bar-El-Ghazel. In January and February 2010, 2,560 children were treated in CNT² and CNA³ a sharp increase compared to 2009.

Emergency response and needs: UNICEF supports 73 out-patient and 16 in-patient facilities in Chad.

- Since April 2009, 42 new out-patient treatment centres and 5 in-patient therapeutic feeding centers opened in Kanem, BEG and Guera regions.
- In 2010, UNICEF aims to increase access to children with SAM by opening 44 new out-patient feeding centers (7 in Bar-el-Ghazel, 10 in Kanem and 27 in Batha) and 3 in-patient therapeutic feeding centres, train and equip the community volunteers to actively detect early and promptly refer SAM for treatment, and reduce the risk of developing severe acute malnutrition through the distribution of complementary food (Plumpy-do) to children aged 6 to 23 months. Staff will be trained and equipped.

The gaps: \$2.5 million are missing to purchase the therapeutic food.

To run this ambitious program in this crisis situation in Chad, UNICEF needs \$9.5 million that are still missing.

- Currently, only 10 NGOs and UN agencies are working in the Sahelian belt of Chad.

¹ World Food programme

² Centre de nutrition thérapeutique, therapeutic feeding centers

³ Centre de nutrition ambulatoire, outpatient feeding centers

Given the precarious situation which prevails this year in the country, UNICEF plans to support the Government of Chad in mounting a timely and coordinated response to alleviate the impact of the nutritional crisis on the most vulnerable groups. UNICEF's plan of action covers Kanem, Bar-El-Ghazel, Batha, Lac, Hadjar-lamis, Guera, Sila and Ouaddaï.

It is estimated that 102,037 children in the whole country among which close to 50,000 children from 6 to 59 months will suffer from severe acute malnutrition in 2010. Another 46,000 children aged 6 to 23 months will be at risk of severe malnutrition and require appropriate nutrient supplements.

UNICEF focuses on the main priority, preventing child over-mortality, by implementing a minimum package of health and nutrition interventions that includes:

1) Provide access to appropriate quality treatment of severe acute malnutrition:

- o Increase access to children with SAM by opening 44 new out-patient feeding centres and 3 in-patients therapeutic feeding centres,
- o Timely supply of anthropometric equipment, therapeutic food and essential medicines to nutrition centres,
- o Train and equip 600 community health workers for timely identification and referral of malnourished children .
- o Train 250 health professionals on the management of severe acute malnutrition.
- o Timely supply of therapeutic foods and essential medicines to nutrition centres.
- o Treat 50,000 severely malnourished children in the Sahel belt.
- o Support supervision and monitoring: UNICEF provides technical support to ensure that treatment outcomes are in line with SPHERE standards (cure rate above 75%, death rate under 10% and loss to follow up less than 15%).
- o In partnership with WFP, UNICEF will support population-level supplementation of Plumpy-doz provided as a blanket distribution to children aged from 6 to 23 months in Kanem and Bar-El-Ghazel. This will compliment the food ration provided by WFP (CSB, oil and sugar).
- o The expansion of services with efforts to improve quality will entail increased technical support, monitoring and oversight. The expected increase in the case load of malnourished children in feeding centers will require enhanced support to all the nutritional centers, a support that UNICEF will provide.

2) Improve community knowledge, attitudes and practices on key family practices through communication for development (C4D) campaigns:

- o Identify and revitalize of community networks.
- o Train health workers and community networks on the promotion of key family practices, including the promotion of exclusive breastfeeding until the age of 6 months and with complementary feeding thereafter (13-15% expected mortality reduction - Lancet series 2005).
- o Develop/disseminate communication materials and
- o Promote key family practices through local radios.

3) High impact health interventions to prevent aggravating co-morbidity and co-mortality factors

:

- o Routine childhood vaccinations, and measles vaccination campaigns – with Vit. A and Mebendazole treatment,
- o Treatment of Children with Diarrheal disease with Oral Rehydration Solution and Zinc (19% expected infant and neonatal mortality reduction – Lancet series 2005),
- o Treatment of Children suffering from Pneumonia with Antibiotics,
- o Training and equipment of 600 community health workers for Integrated Management of Childhood and Neonatal Illnesses (IMCNI),
- o Training of 250 health professionals on the Integrated Management of Childhood and Neonatal Illnesses.

Nutrition surveillance

To complement the routine supervision and monitoring efforts, nutrition surveys (using the SMART methodology) will be carried out in all the regions of Sahel at the peak of the lean season. UNICEF will also support a nutritional surveillance based on the community screening and the data from nutrition centers.

Coordination: cluster lead

The nutrition cluster led by UNICEF is coordinating all nutrition interventions at national and regional levels. In all regions of the Sahelian belt, UNICEF will continue to provide technical support to local health officials to coordinate all implementations efforts. The coordination of all planned interventions will be under the overall leadership of MOH and Government of Chad, both at central and regional level. Cluster meetings are the key forum to disseminate and share reports on malnutrition (situation, admission trends, standard treatment and quality indicators); within this frame, documentation of good practices and evaluations will be carried out, including the use of Plumpy-doz.

CHAD: MALNUTRITION IN KANEM

The region of Kanem is located in the Sahelian belt of Chad. Its surface is of 220,000 km and the population is estimated to 367,369 inhabitants who are living from agriculture or breeding, among whom 66,861 under five children. Food vulnerability is one of the characteristic of this Sahelian region and several studies confirm that malnutrition is chronic and structural in the Kanem region.

The four regions of Kanem, Bahr-El Gazel (BEG), Batha and Guera of Chad constituting the Sahel belt of Chad are historically affected by recurrent episodes of food insecurity resulting into poor health and nutrition indicators for children and women. A nutritional survey led in June 2007 by UNICEF, WFP and the Ministry of Health revealed that global acute malnutrition (GAM) was over 18% as severe malnutrition (SAM) was 3% in Kanem. In September 2008, an ACF survey in Mao (the regional capital) town and South showed rates much above acceptable thresholds, with 20% of GAM and 2.8% of SAM.

In late 2008, UNICEF assessment of the nutritional status of children in Kanem and Bar-el-Ghazel pointed to a critical situation with global acute malnutrition index estimated at over 20%, far beyond the emergency thresholds. At the same time, chronic malnutrition was estimated at 56.9% and measles immunization coverage barely reached 25% in the two regions. 62,953 children and 17,487 pregnant and lactating women were potentially vulnerable due to a continuous deterioration of their nutritional status.

Bad crops and food insecurity in 2010

Recently these regions have increasingly suffered from deteriorating quantity and poor distribution of rainfall. Hence, the amount of rainfall registered in 2009 in Kanem was 52 percent lower than that of 2007 leading to a drop in cereal harvest by almost 83 percent.

The recent vulnerability assessments conducted by government and development partners suggest that up to 2 million people could be in urgent need of food assistance in Chad, most of them living in the regions located in the Sahel belt.

A recent ECHO mission in Sahel region observed increasing scarcity and price of food on local markets against a backdrop of diminishing purchasing power. Livestock, a major source of livelihood is being exchanged at give away price.

Because they need money for their household, many men of the Kanem region left the region and about 2/3 of the population of the region is migrating to southern areas. Women and children now represent 80% of the population in Kanem region.

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Aggravating children's malnutrition, measles' outbreak was officially declared in February 2010 in Kanem and Bar-el-Ghazel.

A network to fight malnutrition

Since April 2009, with the support of partners, and in coordination with the ministry of Health, nutritional rehabilitation centres have been opened by UNICEF in existing health centres. 18 outreach centres (CNA) 6 supplementary centres and two therapeutic feeding facilities in the regional hospitals have been created.

In order to reach populations living in remote villages and areas, nutrition screenings among children from 6 to 59 months are led at the community level. This commitment of community volunteers has required large scale trainings. In both Kanem and Bar-el-Ghazel, 93 socio-health workers have been trained on the national protocol for managing acute malnutrition.

In 2009, 159 tons of RUTF (ready to use therapeutic food) have been provided to the 32 OTC in Kanem. 4,254 children suffering from severe malnutrition have been treated in 2009.

In 2010, new outreach centres are to open with the support of UNICEF. Community-level screenings will multiply, and a nutrition surveillance system to provide reliable data for decision making will be set up.

Source: UNICEF – Mobilisation communautaire au profit de la lutte contre la malnutrition au Kanem, février 2010
Interventions de l'UNICEF dans le Kanem et le Bar-el-Ghazel

Invisible children of Bar-El-Ghazel

Bar-El-Ghazel is officially a region since 2008. 270,256 inhabitants are living on 69,999 square km (census of 2009). The children under five years old represent 18.2%¹ of the population (49,187 children).

Bar-el-Ghazel is a landlocked region in the Sahelian belt of Chad. The population of the region is mainly nomadic, and is living from livestock. Every week end, in the market of Moussoro, a crowd gathers to sell and buy cattle.



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Until recently, there was no data to evaluate the extent of infant malnutrition in the region. It was supposedly high, but no large

scale survey had been led there.

Malnourished children of Bar-el-

Ghazel were basically invisible. According to the results of an ACF survey in the end of 2009, global acute malnutrition (GAM) was of 24%, as severe malnutrition was 4%.

The network of outreach nutritional centres and community level screenings which started in April 2009, gives a better understanding of the situation of children nowadays.

The first outpatient therapeutic centre opened in April 2009. There are now 15 OTC in the region and 7 new centres should be opening within a radius of 20 to 55 km from Moussoro, the regional capital. There is one inpatient therapeutic center in Mossoro. About 8 "areas of responsibility" over 15 are covered in Bar-El-Ghazel today. Each centre serves for at least five big villages.

The mass screening of malnutrition in the villages led to an increase of children referred to the OTC for treatment. In 2009, over 3,000 children have been admitted in the outpatient therapeutic program. Between January and February 2010, 1,000 children suffering from severe malnutrition are recorded in these centers. Every month, about 500 boxes of RUTF² are provided to the centers of the region by UNICEF (each box contains the treatment in therapeutic food for one child). With the lean season an increase in admission is expected in the feeding centres

To alleviate the negative impact of malnutrition on children, UNICEF in partnership with WFP will support the implementation of blanket feeding to improve access to food to children aged 6 to 23 months. Specifically in Kanem and BEG, WFP will distribute CSB, oil and sugar while UNICEF will

¹ According to 2001 census

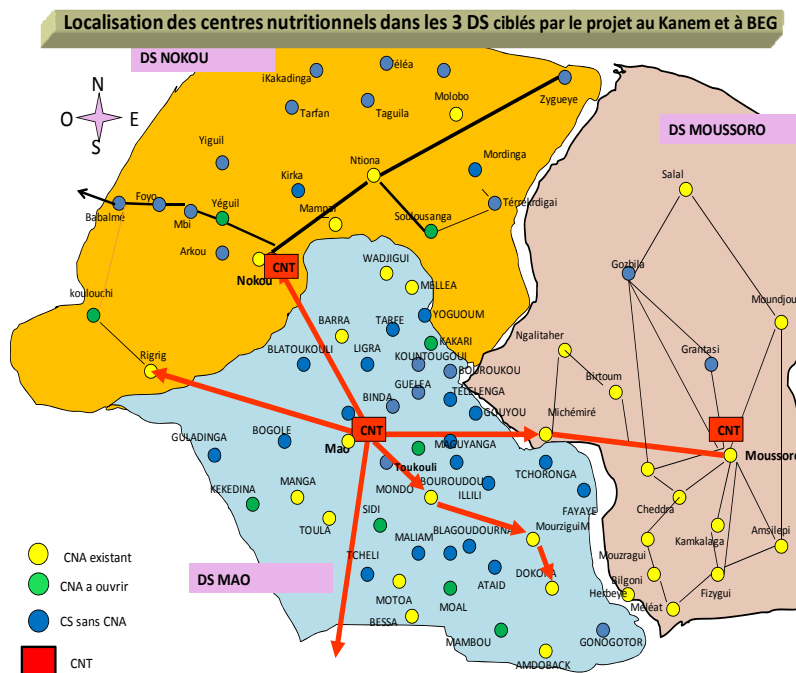
² Ready to use therapeutic food

compliment the food basket with Plumpy-doz during the lean period for children at high risk of becoming acutely malnourished.

Since Plumpy-doz will be introduced for the first time in Chad, the scale of this operation will be kept at a modest level and therefore the distribution of these will be primarily focused on vulnerable population in two regions, Kanem and BEG of the Sahel belt.

To compliment the resources available for this specific activity, UNICEF will use part of the funding to procure an additional 20,000 Kg of Plumpy-doz. The whole exercise will be closely monitored and documented to learn from the experience and develop the further course of action. UNICEF will depute additional staff at least for 6 months to support, monitor and document this new element of the emergency nutrition response.

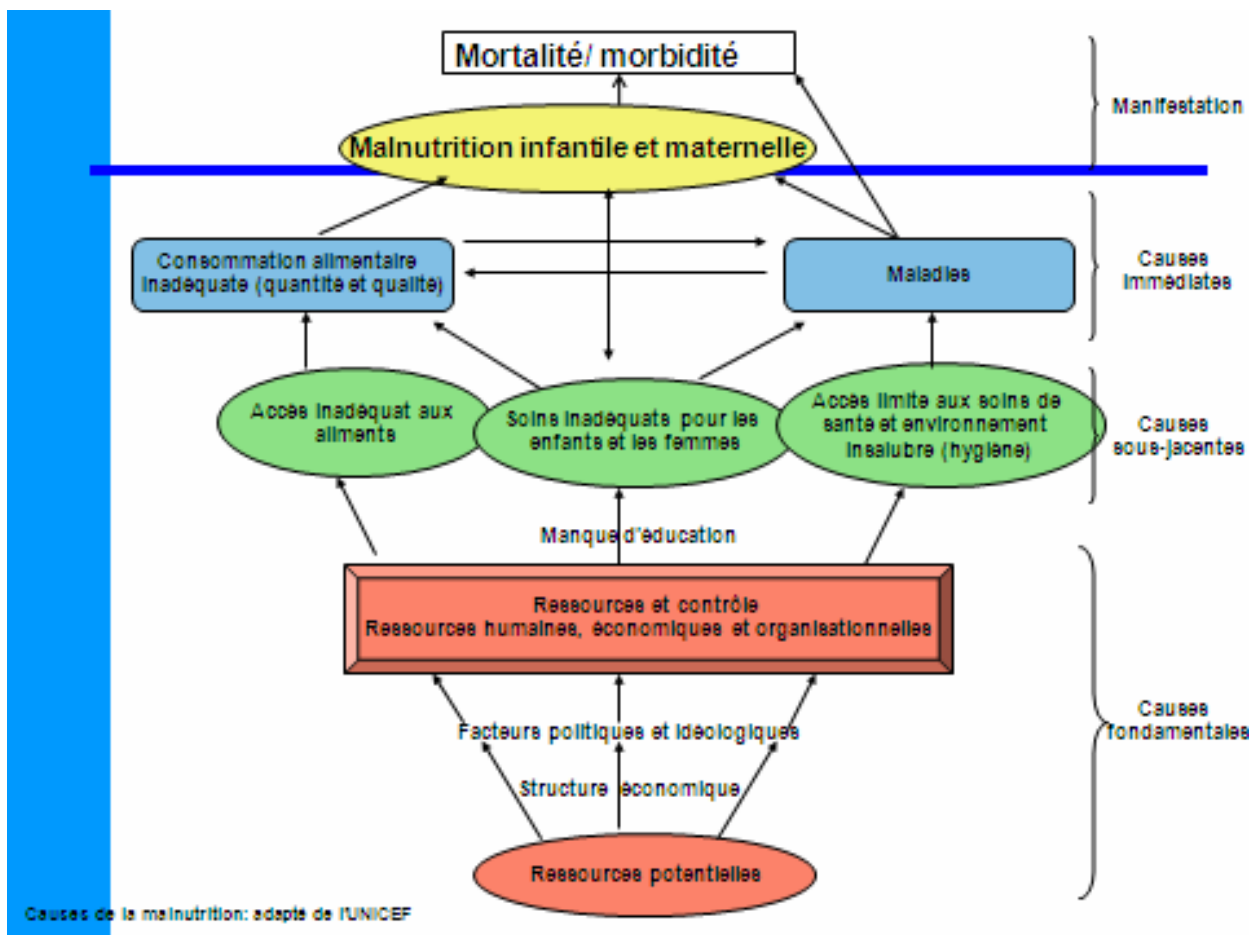
Starting from nothing a year ago, the network to help malnourished children is improving day after day in this remote region. Little by little, with outpatient centres and community level mass screenings, we can have a view on the extent of malnutrition in this region and we can response to severely malnourished children's need. A crucial relief as malnutrition is sharply rising in the Sahelian belt of Chad.



CHAD: THE ROOTS OF MALNUTRITION

Malnutrition has been above acceptable thresholds in Chad for a decade. This situation is further aggravated by recurrent epidemics such as measles, escalating food prices and weak institutional capacity to respond to the pressing health and nutrition needs of the most vulnerable section of the population.

But behind obvious factors such as food availability or related diseases, underlying causes explain this constant high level of malnutrition in the country. Apart from food vulnerability, these high levels of both global acute and chronic malnutrition can be explained by various factors such as poor access to health services, insufficient access to safe drinking water and inappropriate infant and young child feeding practices. Poor coverage of health services together with the lack of access to clean water results into high levels of infectious diseases such as diarrhoeas and respiratory infections among under five children. Also, the presence of NGOs in affected areas is weak.



Diseases: In all the regions of the Sahel belt and especially among the vulnerable population, pneumonia, diarrhoea, measles and malaria are often associated with cases of SAM.

Breastfeeding: Although most mothers breastfeed their children, exclusive breastfeeding (with no additional liquid) during the six first months of life is only 2% to 4%. Evidences prove that exclusive breastfeeding during six months and complementary intakes to breastfeeding between six months and two years old can reduce child mortality of 13% to 15%

Access to clean water and hand washing with soap: hand washing with soap and access to clean water are crucial to reduce malnutrition. Treatment of Children with Diarrheal disease with Oral Rehydration Solution and Zinc can reduce of 19% infant and neonatal mortality (Lancet series 2005).

Looking for Malnourished Children in Yeguïl, Northern Kanem

Since March 2010, 402 children from villages in Kanem region have been screened, and around 40 were severely malnourished. In another region Bar-EI-Ghazel, 604 children have been screened so far, of which 38 were severely malnourished. Today, the health workers dedicated to nutrition are screening in Yeguïl, near Nokou, Northern Kanem.

A hot wind is blowing its difficult to distinguish earth from sky on the horizon. Here, the sand does not have the beautiful ochre of Saharian hills. Its grains are thick and abrasive. It gets everywhere, into eyes and into mouths. People come out of this landscape in groups. The thin figures in brightly coloured veils bend into the wind as they make their way over the ground. It's 50 degrees centigrade.



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This is Yeguïl, some 25 km from Nokou, Northern Kanem, in the Sahelian belt of Chad. It is the opening day of the outpatient nutrition centre. The health workers and the UNICEF team have informed the mothers that their under five children will be screened for malnutrition.

As women arrive and sit on the sandy ground, men are in a meeting inside to nominate 3 women who can read and interpret the bracelet that indicates malnutrition by measuring the circumference of a child's arm.

The region of Nokou is badly affected by food shortages this year and, malnutrition is rising. It is a poor region and the health centre is no different. There are few drugs in stock, UNICEF's team has brought therapeutic food with them and will bring new batches of essential medicines in the coming days.

Nearly a hundred women and children have gathered and are waiting for men's vote. The news of UNICEF's first screening of malnourished children in Yeguïl has spread to even far off villages. The meeting is over and men have chosen the women. Health workers and UNICEF's team brief them on the MUAC, the bracelet to screen malnutrition and show them how to use it to measure the arm circumference on the upper arm.

The bracelet has 3 zones indicating the level of severity of malnutrition. The red one, below 11 cm, is for severe malnutrition. Children in this zone need life-saving treatment and will be included in the outpatient nutrition program. They will be given therapeutic food and appropriate care, and will be examined once a week. Among the children of the red zone, some will need hospitalization because they have a serious disease or they are too weak to eat by themselves. They will be referred to the therapeutic centre. The children who are in the yellow zone, which is just above,

need supplementary food before malnutrition damages further their health. They will be included in the coming supplementary feeding program run by the World Food Programme (WFP). The children in the green zone are fine.

The screening starts in an animated atmosphere. Women are holding their children under the nose of the screeners. Older children want to be screened as well, and the UNICEF doctor, Ignacio, is trying to organize a queue.

Sat on the sand, the women who are doing the measuring shout the result of the reading to Ignacio who fills in the evaluation table. He gives a ticket to the mothers of the children who are in the red or the yellow zone. Once in the health centre, the children will be weighed and measured before having a medical examination. Malnutrition is often a cause of other conditions such as diarrhoeas or respiratory infections.

As the screening goes on, men are watching and making comments, a few meters away. After the screening, the team will meet with the villagers. Ignacio will announce the result of the screening and there will be a discussion on the reasons explaining why children are suffering from malnutrition. It will be a start. For now, the outpatient nutrition program in the health centre of Yeguil has opened.

The screening took one hour and a half. In the end, 137 children were screened. Among them, 36 (more than a quarter) were in the yellow zone and 9 (6.5%) in the red.

Maina, the nurse who fights malnutrition in the desert

Mahamat Abakar Sedik is a nurse and he is in charge of Mao's therapeutic feeding centre in the Kanem region of Chad. Although it misses equipment and qualified staff, the team is working hard to save children's life and to fight against malnutrition.

When he comes to you with a warm smile and shakes your hand with a vivid energy, you first notice his long and thin figure in immaculate white trousers and tunic. Then he starts speaking, and you notice the man has a lot to say.

Mahamat Abakar Sedik is a nurse and he is in charge of Mao's therapeutic feeding centre. Mao is the capital of Kanem, in the Sahelian belt of Chad, a landlocked region where living conditions are tough.



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The 266,000 inhabitants of Kanem mostly live from agriculture and breeding and a majority is nomadic. Kanem is not rich: in August 2008, a WFP survey revealed a rate of food vulnerability of 53% in the region.

We are in April but the outside temperature is close to 50 degrees already, and a sand storm shakes the makeshift hospitalization ward of the therapeutic feeding centre settled in the main hospital of the region.

Maina, as his colleagues call him, was born in August 1968 in Mao. He studied in N'Djamena, the capital, to become a nurse. He wanted to dedicate to the most vulnerable and weak children. So he came back to the regional capital of Kanem after his studies, and nowadays, Maina is the focal point of nutrition in Mao's health area. He manages a therapeutic feeding centre where equipment and qualified staff are often missing.

They don't have an oxygen machine or a warm room for new-born underweight children; they don't even have an ambulance for the hospital. But at least, says Maina, they get their F-75, F-100 and RUTF (ready to use therapeutic food) for the malnourished kids, "thanks to UNICEF".

Maina is not a man who complains about his living or working conditions: with very little means, he and his team are doing their best to cure the monthly average of 30 children who are admitted in the TFC in very bad shape. He shows the picture of the children as they arrived nearly dying to the centre, and proudly compares them to the children who are still weak, but recovering.

The therapeutic feeding centre takes care of severely malnourished children who also suffer from a disease or who have lost their appetite. These children need medical surveillance and care. Severely

malnourished children are those whose weight for height is under 70%, or those with bilateral edemas in the feet, hands and face.

From his small feeding centre in the middle of the desert, and although his signature is rarely mentioned at the bottom of the publications, Maina contributed to the most prominent researches on nutrition, working with the most well-known nutrition specialists around the globe... "Did you know André Briend came to Mao?" Maina asks. "His" TFC was one of the places where the ready-to-use therapeutic food, which allowed a revolution in nutrition treatments, was tested in the 1990s. The fact is that, in Mao, like in the whole country, it is easy to find malnourished children: malnutrition rates have been above the emergency thresholds of 15% for a decade.

Maina would love to do more in his modest TFC, but he is already satisfied: things have improved in Kanem since April 2009. With the support of UNICEF who provides therapeutic food, over 40 outpatient nutrition centres are now operational and, with the 3 therapeutic feeding centres, can save many children's lives.

In a crisis situation such as the one expected in 2010, this new relief program gives some hope to better handle children's malnutrition. As 2 million people are to badly suffer from the food crisis (more than one over 5 inhabitants) and 102,000 severely malnourished children will need life-saving treatment this year in the country, "vulnerability is affecting every one here, even the public servants. We all are vulnerable, in Chad." Maina says.

“Disease arrives on a horse and leaves on foot“

It's Saturday morning and some women are waiting at Moussoro nutrition centre. Children are almost covered by their mothers' long veils. Among them 22 year old Radié, holds her baby girl, Achta, close to her breast.

It is the first time that Achta has come to the nutrition center. And it is her first time in town. Her family is nomadic and more used to the desert than crowded places like Moussoro.

The town is the capital of Bar-el-Ghazel in the Sahelian belt of Chad, and the province is facing a crisis.

Sitting next to Radié are two men dressed in white. The younger one is Radié's husband, Mohamat, and the elder is his uncle. He lives in Moussoro and is their guide. Nomadic families need help to find their way in the big city. For them it can be an intimidating place, but it is desperate need which brings them here.

How Achta lost weight

Radié is the only woman accompanied by men. Two year old Achta has been sick for three months. Her parents first tried some traditional medicine and used melted butter to smooth her cough. But it didn't work and Achta was losing weight. In the end Radié and her husband decided to make the 20 kilometer journey to the nutrition centre in the town.

When she was pregnant, Radié was sick and Achta was born underweight, like so many children in Chad. When she was born Radié couldn't breastfeed her, so she was fed with goat's milk from the small herd that supports their family. Life is hard, especially when someone in the family gets sick. In Bar-El-Ghazel access to health care and clean water is poor, and that means nomadic families are vulnerable to illness and opportunistic infections.

102,000 children to save

People from this dry and arid region are used to tough living conditions. Malnutrition is so widespread here that some parents don't realize how wasted their child is. With rates above the emergency thresholds for a decade, malnutrition is a major health and development issue in Chad. Every year, between May and August the stocks from the previous harvest run out and food becomes a scarcity.



But this year is even worse: Chad is badly affected by the food crisis, and people used up their limited stocks earlier than usually. UNICEF estimates that 50,000 severely malnourished children under five years old will need life-saving treatment in the Sahelian belt and 102,000 in Chad.

Red zone = vital threat

The good news is that since April 2009, with the support of UNICEF (which provides therapeutic food to the nutritional centers) 42 outpatient nutrition centers are now operational in the Sahelian belt. In a crisis situation such as the one expected in 2010, this new relief program gives some hope to better handle children's malnutrition.

It is Achta's turn to be examined. Fatimé, the nutrition officer, measures the circumference of her thin left arm. She is in the 'red zone'. The measurement is less than for the neck of a bottle. She is suffering from severe malnutrition. Fatimé calculates that her weight for height is less than 60%, below the 70% criteria for severe malnutrition. For good measure, Alexis, the nurse in charge of the health and nutrition center, listens to her chest and confirms she has a respiratory infection.

The centre does not have the resources to deal with Achta's acute condition and she is referred to the therapeutic feeding center in the hospital of Moussoro.

The hospital can save Achta

When Alexis said "Hospital", Radié shivered. She lost a child, who died in the hospital when he was 11 months. The baby was suffering from malnutrition and diarrhea. But the family couldn't afford to pay for treatment and they reached the hospital too late.

Radié doesn't know how to handle the bad news. She is pregnant and must go home to deliver. They will have to find a way to stay with Achta in the hospital for at least a week. Illness comes on horse and leaves on foot", says Alexis, knowing that the time needed for Achta to recover will cost the family dear. .

Tomorrow, it will be time to think about a solution. Now, they leave the health center and cross the sandy avenue leading to the hospital where Doctor Gustave admits the malnourished child. He takes a blood sample and writes a prescription. Despite her weak cries, Achta has a chance to survive.

Red zone: 102,000 severely malnourished children in need of life-saving care

There was no question that Hissène needed treatment when he arrived at the nutrition center of Moussoro town. He is another child in the 'red zone', meaning that he is severely malnourished. He is one of the 102,000 severely malnourished children of Chad who will need life-saving care in 2010.

Fatimé, the alert nutrition worker who welcomes the children, immediately recognized the signs.

"This child is malnourished", she said, almost as soon as Eta uncovered her son. The window on the bracelet she used to measure the circumference around Hissène's upper arm showed red. It was confirmation.

Acute malnutrition over 15%

And Hissène is not an isolated case in Chad in 2010.



In Moussoro, the capital of Bar-El-Ghazel province, acute malnutrition among children has been above emergency thresholds (15%) for a decade. But this year will be far worse. People have already sued their food stocks and, when cattle are dying and crops are poor, more children suffer from malnutrition.

Since January this year the nutrition centers that UNICEF supports, like the one of Moussoro town, have admitted twice the usual number of malnourished children.

Outpatient nutrition centers

Hissène was screened in his village. Since April 2009, a network to fight malnutrition has been established in Chad with community level screening and outpatient nutrition centers. Mobile teams are going to the villages. They train and supervise volunteers chosen by the community to detect malnutrition and to refer affected children to the outpatient nutrition centres. These centres took care of more than 9,000 children in 2009. To meet the crisis 44 new centres will open in 2010. They may have 50,000 children to save in the Sahelian belt of Chad.

As Eta was waiting, the small room filled up with mothers and children. Eta brought Hissène to the outpatient nutrition center on a Saturday morning, the day of the therapeutic food distribution. Children suffering from severe and acute malnutrition need specialist feeding and medical care to recover. In this center, mothers are given therapeutic food for their child every week.

Test of appetite

After his assessment Hissène and his mother are sent to another room where 4 other children are waiting. When the room is full, a nutrition officer explains what is going to happen. When the mothers

and the children have washed their hands with soap, each child receives a bag of ready-to-use therapeutic food.

If he eats all or part of it within an hour, the child can be treated here once a week. Otherwise, the damaged appetite has to be restored in the therapeutic feeding center of the hospital.

At first Hissène, who seems weak, coughs and refuses the mixture. But Eta keeps on trying, putting some of the peanut butter like substance of her finger for him. Hissène finally swallows and stops frowning.

Hissène, out of the red zone

Apparently it does not taste so bad after all. Hissène has been sick for about two months but Eta didn't have the money to bring him to town. Yesterday, the mobile team told her to go to Moussoro.

So, this morning, at dawn, Eta left with Hissène. Her husband stayed with their four other children and their small herd of kids cattle in their village, 5 kilometers away.

When asked if life is difficult this year, Eta just nods and smiles. They have to sell their goats, and "at give away prices". A goat will soon cost the price of a 100 kg bag of maize, the only food the household can afford. But this is not enough for young children who need more nutriments.

What will they do if they sell all their goats? Eta smiles again. "I don't know. We live day by day, and hope. Maybe, if you tell the world what is going on here, they will help us."

Hissène grabs the brightly coloured bag containing the feed and cries in despair, He wants more. Eta smiles. Hissène won't need to go to the hospital. Next Saturday, Eta will travel at dawn again to Moussoro. Her baby has discovered a sweet tooth and will soon get better.

Financial gap

In order to response to the emergency situation in Chad, and in particular in the Sahelian belt of the country this year, UNICEF still needs over \$9,5 million.

This budget request covers 102,037 children with severe acute malnutrition in 8 regions (Lac, Hadjar-Lamis, Kanem, Bar-el-Ghazel, Batha, Guera, Sila, Ouaddai). 50,000 children with severe acute malnutrition need life-saving treatment in the Sahelian belt. A blanket feeding operation will be led of the first time in the country for 43,000 children at least.

This evaluation made on the 9th of May 2010 is a dynamic data. The gap can be filled thanks to new donations, or deepen because of new needs arising.

Project	Amount Required (US\$)
1. Purchase of Therapeutic food, essential drugs and anthropometric equipments for the management of severe acute malnutrition in Chad	
2. Purchase of therapeutic food for the blanket feeding operations in Bar-el-Ghazel	5,500,000
3. Operational costs (transport, storage, structures, ...)	3,000,000
4. Additional staff	600,000
5. Improve nutritional surveillance system in the Sahel belt of Chad (through SMART surveys)	400,000
Total gap	9,500,000

NUTRITION IN SAHEL COUNTRIES

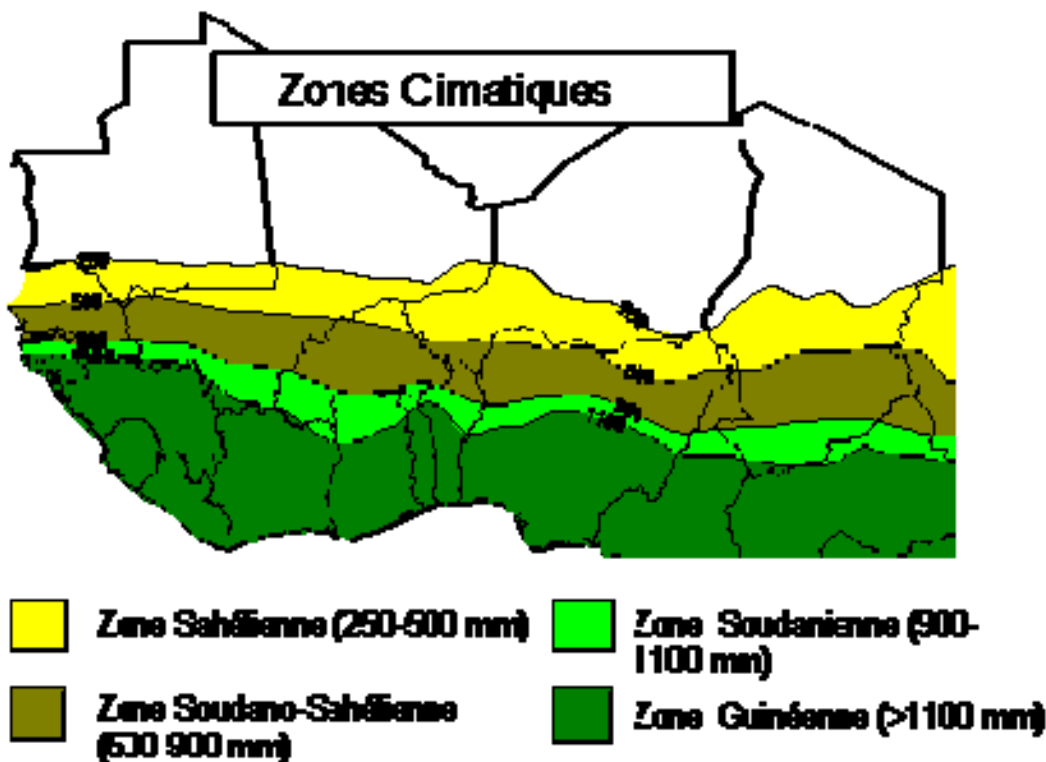
Burkina Faso, Chad, Mali, Mauritania , Niger, northern Nigeria

The Sahel Region has historically faced high prevalence of undernutrition among children. But the 2010 hunger season in the Sahel is predicted to be far worse. This year the annual lean season is earlier and will be longer and more severe than usual.

Food insecurity increases markedly the number of severely malnourished children with an expected 859, 000 children who will need to be treated for severe acute malnutrition along the year. The biggest need for interventions is in Niger and Chad. UNICEF and its partners are already implementing life-saving interventions for children and women; more are being prepared for the coming months.

UNICEF and its partners urgently need additional financial support from the international community to ensure that the plans are implemented and supplies are purchased over the short, medium and long term of this emergency.

UNICEF is benefiting from donations from multilateral (like ECHO, EU) and bilateral (Governments) donors to run its nutrition programmes. UNICEF thanks DFID, ECHO-EU, OFDA and USAID who are supporting emergency or longer term programmes.



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