

# NUTRITION SECURITY

POLICY





**DRC**

Photo: M. Palombi



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## REFERENCE DOCUMENTS OF THE ORGANIZATION

### **Policies currently available:**

- Corporate Social Responsibility
- Childhood
- Environment and Disaster Risk Reduction
- Food Security
- Gender
- Protection

### **Other documents to refer to:**

COOPI's Standard Operating Procedures on Nutrition Security

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# Introduction



COOPI - Cooperazione Internazionale is an independent and secular humanitarian foundation established in 1965. During 50 years of activity, it has carried out more than 1.700 projects in 60 countries by involving thousands of local workers and providing a direct benefit to about 100 million people. In line with its mission and thanks to the commitment, motivation, determination and professionalism of its collaborators, COOPI contributes to poverty reduction and development of the communities it cooperates with around the world. COOPI intervenes in emergency, reconstruction and development contexts with the aim of achieving a better balance between North and South of the planet, between developed and developing areas.

The Policy on Nutrition Security<sup>1</sup> is part of a series of theoretical and operational documents that COOPI has adopted to define its position and to inspire and guide the foundation's priorities<sup>2</sup>. These documents describe the theoretical framework within which COOPI's international approach has been developed and on which is relying today. Furthermore, along with this Policy, COOPI has developed an operational manual ("COOPI's Standard Operating Procedures (SOP) on Nutrition Security") that declines the theoretical level into the programs on the field.

<sup>1</sup> The Nutrition Security Policy was approved by COOPI's Board of Directors on the 29th of November, 2016.

<sup>2</sup> At the moment, the Organization has already adopted the following policy documents: childhood; environment and disaster risk reduction; food security; corporate social responsibility; gender and protection.

# Why focus on nutrition?

According to the World Health Organization (WHO), nutrition is the intake of food, considered in relation to the body's dietary needs. Therefore, nutrition refers to "processes involved in eating, digestion and utilisation of food by the body for growth and development, reproduction, physical activity and maintenance of health"<sup>3</sup>.

Proper nutrition allows an individual to develop correctly, to maintain a steady progression of growth, to resist and recover from diseases, and to attend to its daily activities. When nutrition is insufficient, an individual is malnourished. Malnutrition might

result in a constraint on economic development. International estimates suggest that in developing countries malnutrition might reduce the gross domestic product (GDP) by 2 to 11%, hindering educational performance, physical productivity and health outcomes (World Food Program, WFP, and United Nations Economic Commission for Latin America and the Caribbean, ECLAC, 2007). Ensuring children receive adequate nutrition is vital to their survival, it can save their lives and enable them to fulfill their potential, as well as being a potential means to reducing poverty and inequalities.

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### THE REPERCUSSIONS OF MALNUTRITION<sup>4</sup>

**38% of children in least developed countries suffer from chronic malnutrition.**

**The probability for malnourished children to be able to read by the age of 8 years old is lower by 19%.**

**Once adults, malnourished children will gain 20% less compared to well nourished ones.**

**In total, current children malnutrition might cost 125 billion USD to the global economy once these children will grow adults.**

<sup>3</sup> The Sphere Project. 2011. "Humanitarian Charter and Minimum Standards in Humanitarian Response".

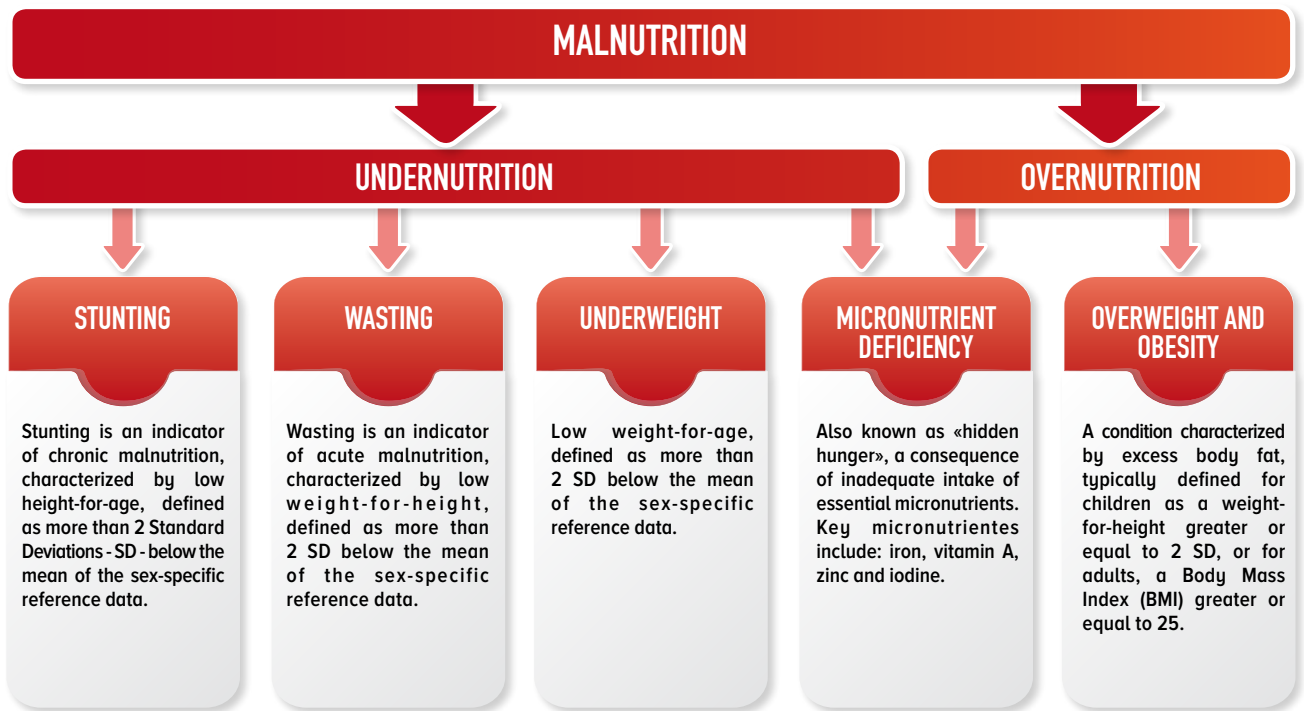
<sup>4</sup> United Nations Children's Fund, UNICEF. 2013. *Save the Children*. 2013.

# Key definitions and concepts

When dealing with malnutrition, it is important to define some key concepts, presented below. Malnutrition is an abnormal physiological condition caused by inadequate (excessive or insufficient) intake of macronutrients and/or micronutrients

(Food and Agricultural Organization of the United Nations, FAO, 2014). As shown by the classification in Figure 1, malnutrition includes undernutrition and overnutrition.

**Figure 1:**  
Classification of malnutrition – COOPI, 2016, adapted from The World Bank, 2013.



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**Undernutrition is the result of under-feeding and/or poor absorption and/or poor biological use of consumed nutrients caused by repeated infectious disease** (FAO, International Fund for

Agricultural Development, IFAD, and WFP, 2014). Undernutrition can manifest itself in several ways: stunting, wasting and underweight (FAO, 2014).

A low height-for-age indicates **stunting** and is an indicator for chronic malnutrition, since it is the result of a cumulative process of inadequate nutrition and/or suboptimal health conditions. Children with growth delays may appear younger than their actual age.

**Wasting** corresponds to low weight-for-height and is an indicator of acute malnutrition on a short-term basis, since it is caused by rapid weight loss.

**Underweight** reflects insufficient weight-for-age and is a non-specific indicator of undernutrition, which includes both wasting and stunting. A child

with low birth weight can be wasted, stunted or both. **Micronutrient deficiencies**, among which the most common are vitamin A, iron and iodine deficiency, can be associated both to undernutrition and to overnutrition, due to the consumption of cheap food, rich in calories but low in vitamins, fibers and minerals.

**Overnutrition** is the result of excessive food consumption and includes **overweight** and **obesity**, where average body weight does not align with the reference values due to the excessive accumulation of fat in the body (FAO, IFAD and WFP, 2014).



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**MALI**

Photo: COOPI archive



OTHER KEY DEFINITIONS<sup>5</sup>

<p><b>CHRONIC MALNUTRITION</b></p>	<p>Low height-for-age is a manifestation of chronic malnutrition. <b>Chronic malnutrition</b> is defined by a height-for-age (HFA) Z-score below two Standard Deviations (SDs) of the 2006 WHO growth standards.</p> <p>Chronic malnutrition is the result of prolonged or repeated episodes of nutritional deficiencies (in calories or micronutrients) beginning at birth or before it. It can also be the result of exposure to repeated infections, or to precarious living conditions, which limit the growth of the child.</p>
<p><b>ACUTE MALNUTRITION</b></p>	<p><b>Acute malnutrition</b> is due to a decrease in food consumption and/or to a disease resulting in bilateral edema or in a sudden loss of weight. Acute malnutrition develops quickly, in connection with a one-time situation of lack or repeated deficiencies (lean period, severe epidemics, sudden or repeated change in diet, conflicts...).</p> <p>Acute malnutrition for children between 6 and 59 months of age is defined by the presence of bilateral edema or wasting (low mid-upper arm circumference [MUAC] or low weight-for-height [WFH]). The WFH indicator is expressed as a Z-score below two SDs of the median value (or WFHZ &lt; -2) of WHO and UNICEF, 2009.</p> <p>GAM (Global Acute Malnutrition) is an indicator at the population level which includes Severe Acute Malnutrition (SAM) and Moderate Acute Malnutrition (MAM): GAM = SAM + MAM.</p>
<p><b>SEVERE ACUTE MALNUTRITION – SAM</b></p>	<p><b>Severe acute malnutrition - SAM</b> is defined by a WFH Z-score lower than -3 below the median value, or by a MUAC lower than 11.5 cm, or by the presence of edema. SAM is the most dangerous form of malnutrition and involves a sudden and rapid deterioration of the nutritional status of children, that, without prompt treatment, can lead to death.</p> <p>SAM can manifest itself under different forms, two being the most dangerous ones:</p> <ul style="list-style-type: none"> <li>• <i>Marasmus</i>: the child appears extremely thin, the skin withered.</li> <li>• <i>Kwashiorkor</i>: occurrence of edema, particularly on the feet and the face</li> </ul>
<p><b>MODERATE ACUTE MALNUTRITION – MAM</b></p>	<p><b>Moderate acute malnutrition - MAM</b> is defined by a weight-for-age (WFA) Z-score in between -3 and -2 below the median value or by a circumference of the arm in between 11.5 and 12.5 cm affects a higher number of children than SAM. Certain cases of MAM can deteriorate into SAM if they are not managed adequately.</p>

COOPI's approach to the sector focuses mainly on the prevention and treatment of acute malnutrition, especially in an emergency context, and targets children under five years of age and pregnant and lactating women (PLW). COOPI has recently extended its mandate on all forms

of undernutrition, including chronic malnutrition. It is important to underline that the reduction of **chronic malnutrition** is a long-term goal that can be achieved by integrating nutrition interventions in different programs, i.e. food security, maternal and child health and water, sanitation and hygiene.

<sup>5</sup> WHO and UNICEF jointly developed a statement on growth standards and the identification of severe acute malnutrition in children. For more information, please refer to: WHO-UNICEF. 2009. "WHO child growth standards and the identification of severe acute malnutrition in infants and children. A Joint Statement by the World Health Organization and the United Nations Children's Fund".

## Malnutrition in the world

Globally, it is estimated that nearly 20 million children suffer from severe acute malnutrition, most of them living in South Asia and Sub-Saharan Africa. Over the last two decades remarkable progress has been made in the fight against malnutrition and in reducing child mortality. Thanks to these efforts, the number of deaths in children under five years of age worldwide declined from 12 million in 1990 to 7.6 million in 2011. However, advances in the reduction of undernutrition were comparatively limited and it is estimated that every hour of every day 300 children are still dying because of malnutrition. Remarkably, often the nutritional status of children is not registered among the causes of death, so that the actual dimensions of the impact of malnutrition are still hidden<sup>6</sup>. This represents an obstacle to strengthening and scaling up interventions capable of effectively target undernutrition.

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According to WHO, figures globally show a clear picture<sup>7</sup>:

- Nearly 115 million children worldwide are underweight. As shown in Figure 2, Sub-Saharan Africa, South-Central Asia and Southeast Asia are the most affected areas;
- **Undernutrition accounts for 45% of child deaths;**
- 13 million children are born with a low birth weight or prematurely due to maternal malnutrition and other factors;
- A lack of essential vitamins and minerals in

the diet affects immunity and hinders healthy development. More than one third of preschool-age children globally are Vitamin A deficient;

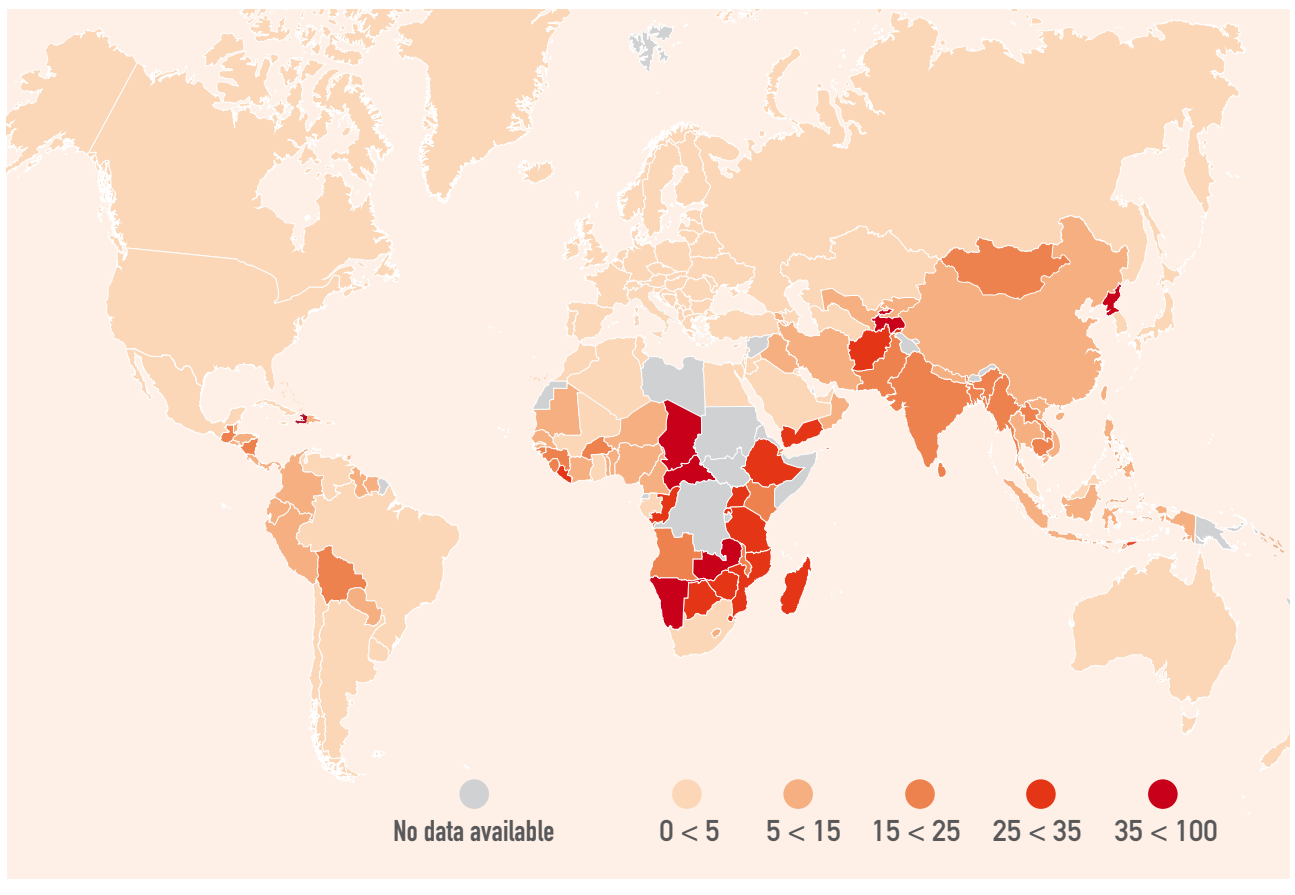
- Maternal undernutrition, common in many developing countries, leads to poor fetal development and higher risk of pregnancy complications;
- Together, maternal and child undernutrition account for more than 10% of the global burden of disease.



<sup>6</sup> For further information, please refer to: Save the Children. 2012. "A Life free from Hunger: Tackling Child Malnutrition".

<sup>7</sup> The indicators of acute malnutrition are detailed in WHO. 2010. "Comprehensive implementation plan on maternal, infant and young child nutrition". The global statistics on malnutrition are detailed in WHO. 2010. "Underweight and stunting in: World Health Statistics".

Figure 2: Prevalence of undernourishment in the population (percent, 2012-14) – FAO, 2014.



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Malnutrition particularly affects groups that are physiologically and socio-economically vulnerable, like children under five years of age, PLW, the elderly, people living with HIV or AIDS (PLWHA) and people with disabilities. **By disrupting the physical and cognitive development of a child, undernutrition reduces his/her learning ability and decreases the potential and productivity of human capital, which in turn decreases the gross domestic product of a country.** Thus, undernutrition in early childhood affects the future educational and economic potential of the individual and the nation as a whole. The cycle

of poor nutrition, disease and poverty perpetuates itself across generations with short-term and long-term implications (World Bank, 2013).

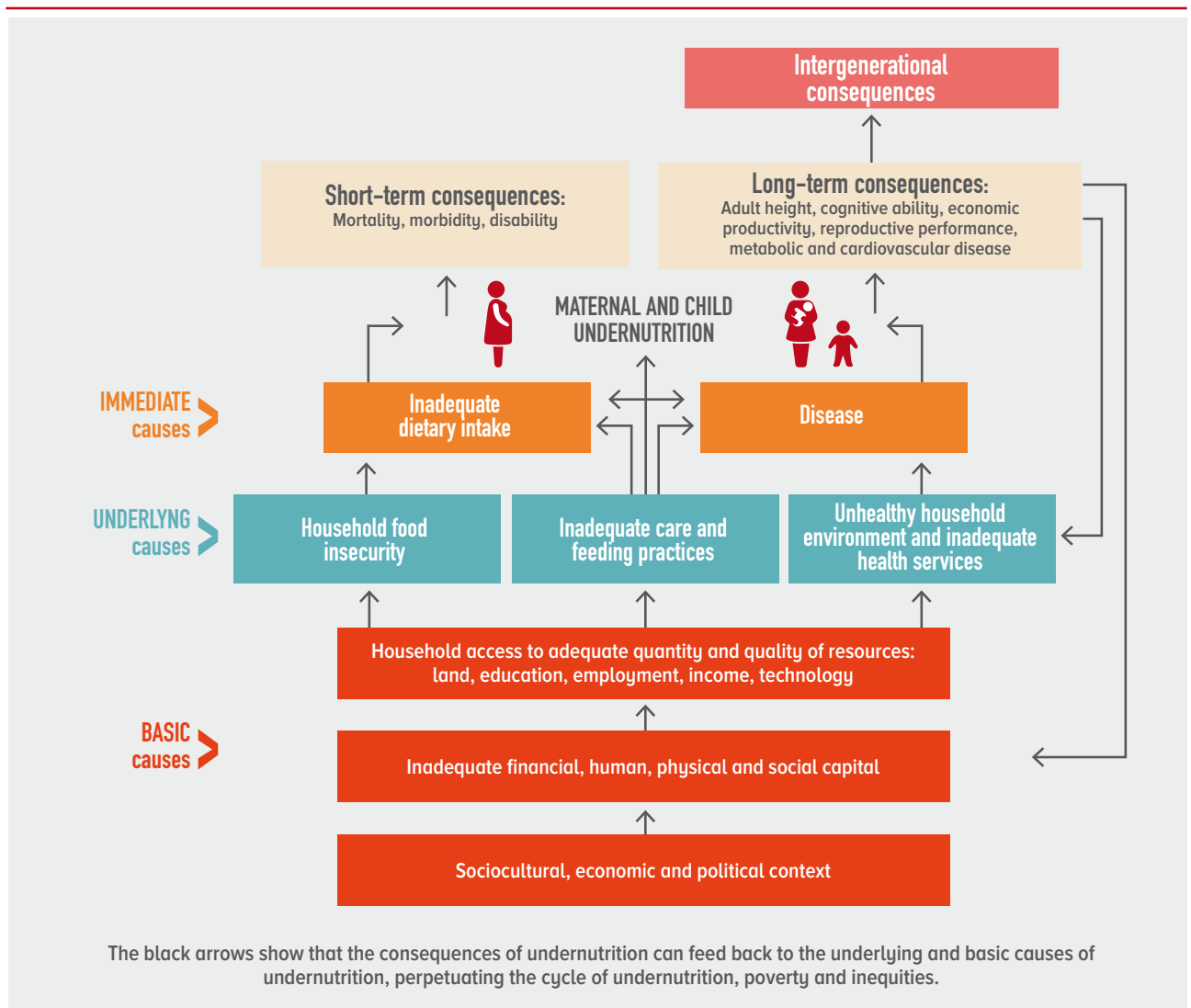
Recent assessments (FAO, IFAD and WFP, 2014) indicate that 805 million people (about 11% of the world population) were chronically undernourished in 2012-14, that is a reduction of 200 million compared to 1990-1992. The majority of undernourished people live in developing regions. South Asia has the highest number of people suffering hunger, while the highest prevalence is registered in Sub-Saharan Africa.

# Causes and effects of malnutrition

According to the conceptual reference framework presented by COOPI in its Policy on Food Security<sup>8</sup> (shown in Figure 3), the causes of undernutrition are

various, multi-sectoral and can be explained at three levels: immediate, underlying and basic.

Figures 3: Determinants of child undernutrition - COOPI, 2016, adapted from UNICEF, 1990.



<sup>8</sup> COOPI. 2013. "Food Security Policy".

**The immediate causes** of undernutrition operate at the individual level and include inadequate food consumption of macronutrients and/or micronutrients and morbidity, that is to say the occurrence of diseases, such as diarrhea, acute respiratory infections and malaria. **The underlying causes** operate at household and community level and include household's food insecurity and inadequate care practices and health care, that are strongly affected by poverty. The household food security is determined by the continued availability, access and utilization of safe and nutritious food. Care practices include breastfeeding, complementary feeding and care practices for children, while health care refers to the availability and access to a healthy environment, clean water, hygiene practices and health services. **The basic causes**, that develop at the regional, national and international level, include socioeconomic factors such as the availability of natural resources, access to and control of production factors as well as the social, economic and political context.

Field-based experience shows that in most cases, multiple risk levels coexist. **Armed conflicts, disasters resulting from natural phenomena, food emergencies, protracted crisis aggravate the determinants of stunting and or prenatal, intrauterine and postnatal malnutrition.** Especially in emergency contexts, pressures and challenges to ensure adequate nutrition are linked to the three types of causes at the same time, making it necessary to adopt an integrated approach with a nutritional perspective. This perspective should accompany the whole cycle of the program, from the needs assessment to the final evaluation of the results.

The **consequences of malnutrition** affect the children in the short and long-term. In the short-term, undernutrition can lead to a weakening of immunity, increased susceptibility to disease (particularly opportunistic infections such as measles, malaria, respiratory infections, diarrheas), delayed physical and mental development and lower productivity. Common consequences of malnutrition include a lack of growth, essential nutrients deficiencies, decreased resistance to diseases and a reduced

ability to work. Also, micronutrient deficiencies can cause various diseases (such as blindness, induced by vitamin A deficiency), impair brain and nervous system development, and increase the risk of death. Such interaction between undernutrition and disease leads to a potentially fatal and vicious cycle of disease and poor nutritional status. Pregnancy and lactation may also be affected. Hunger and a poor diet contribute to early mortality of mothers, infants and young children, they also damage the brain and physical development of young people. Often, malnutrition starts during fetal life and, depending on the conditions, may continue throughout life, especially among girls and women, the latter giving in turn birth to children with intrauterine growth restriction. In the long-term, poverty increases the risk of malnutrition by hindering the household's purchasing power and its access to basic health services, and by exposing it to an unhealthy environment. These factors compromise the dietary intake (both in terms of quality and quantity) and amplify infection threats. Poor households normally experience more frequent pregnancies and a higher number of members, leading to more recurrent infections and more significant healthcare expenditures.



DRC  
Photo: L. Pantella

# International theoretical framework

## *Fundamental steps in fighting malnutrition*

The fight against malnutrition has been included in the humanitarian agenda since the 1970s, when a dramatic food crisis broke out in Africa, in the Sahel countries (Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal) and in Ethiopia, following some devastating droughts cycles. The famine of those years caused hundreds of thousands of deaths and promoted the spread of epidemics<sup>9</sup>.

The concept of right to adequate food and nutrition was introduced after these crises and was recognized under international laws and conventions. Table 1 outlines the main steps that the international community has undertaken to engage in a joint strategy to combat undernutrition worldwide.



<sup>9</sup> According to FAO, the famine in the Sahel countries caused more than 100.000 deaths, while in Ethiopia the death toll between 1972 and 1974 amounted to between 50.000 and 200.000 in a population of 27 million people. Further information is available at: <http://www.fao.org/docrep/x4400f/x4400f09.htm>

**Table 1:** Major steps of the international community towards eradicating malnutrition worldwide

<b>1974 – UNIVERSAL DECLARATION ON THE ERADICATION OF HUNGER AND MALNUTRITION (THE WORLD FOOD CONFERENCE)</b>	Recognizes that “every man, woman and child has the inalienable right to be free from hunger and malnutrition in order to develop fully and maintain their physical and mental faculties”.
<b>1981 – INTERNATIONAL CODE OF MARKETING OF BREAST-MILK SUBSTITUTES (WHO)</b>	Sets an international code of marketing of infant formula and other products used as breastmilk substitutes.
<b>1989 – CONVENTION ON THE RIGHTS OF THE CHILD (UNITED NATIONS GENERAL ASSEMBLY)</b>	Recognizes nutrition as an integral component of the right to health.
<b>1990 – WORLD DECLARATION AND PLAN OF ACTION ON THE SURVIVAL, PROTECTION AND DEVELOPMENT OF CHILDREN (THE WORLD SUMMIT FOR CHILDREN)</b>	States that “Improved nutrition requires adequate household food security, healthy environment and control of infections and adequate maternal and child care”.
<b>1990 – CONCEPTUAL FRAMEWORK ON THE CAUSES OF MALNUTRITION (UNICEF)</b>	Provides a methodology for analysis and captures the multifactorial causality of undernutrition, mainly related to the lack of access to adequate food, care and feeding practices as well as to health services and sanitation.
<b>1992 – FIRST INTERNATIONAL CONFERENCE ON NUTRITION (ICN1)</b>	Finalizes a comprehensive action plan to promote nutrition, bringing together the agricultural and the health sector to achieve the goal of nutrition security for all and give adequate priority to nutrition as an integral part of overall development strategies.
<b>1996 – THE ROME DECLARATION AND ACTION PLAN ON WORLD FOOD SECURITY (WORLD FOOD SUMMIT)</b>	Includes nutrition in the definition of food security, stressing the importance of physical and economic access to sufficient, safe and nutritious food that meets the nutritional needs and food preferences for an active and healthy life.
<b>1998 – CREATION OF THE IFE (INFANT FEEDING IN EMERGENCIES) CORE GROUP</b>	Recognizes that the promotion of exclusive breastfeeding in emergencies can be a lifesaver. Operational guides and training manuals are created to enhance the protection, promotion and support of optimum Infant and Young Child Feeding (IYCF) practices in emergencies.
<b>2000 – THE UN MILLENNIUM DECLARATION</b>	Goal 1 (MDG 1) was devoted to the elimination of extreme poverty and hunger in the world through the required interventions to improve nutrition.
<b>2005 – INNOCENTI DECLARATION ON THE PROTECTION, PROMOTION AND SUPPORT OF BREASTFEEDING (UNICEF)</b>	Recognizes that exclusive breastfeeding for children under six months is the ideal and safest diet that promotes healthy growth and development. It recognizes that mothers have the right to support and to access information, counseling on breastfeeding and complementary feeding.
<b>2008 – THE LANCET SERIES ON MATERNAL AND CHILD NUTRITION</b>	Identifies the need to focus on the 1000 days approach, according to which a child who enjoys adequate food and harmonious growth during the first 1000 days of life, will benefit from them for his entire life, as supported by scientific evidence <sup>10</sup> .
<b>2010 – CREATION OF THE SUN – THE SCALING UP NUTRITION MOVEMENT</b>	The Movement was launched as a collective effort across the governments, civil society, the UN, donors, companies and scientists to eliminate all forms of malnutrition, through the strengthening of political commitments and coordination of intervention strategies.
<b>2012 – COMPREHENSIVE IMPLEMENTATION PLAN ON MATERNAL, INFANT AND YOUNG CHILD NUTRITION (THE SIXTY-FIFTH WORLD HEALTH ASSEMBLY)</b>	Launches an initiative of the UN Secretary-General to eliminate stunting in children younger than two years of age.
<b>2012 – ADOPTION OF 1000 DAYS STRATEGY (WHO)</b>	Adoption of the policy to reduce morbidity and mortality, particularly during the first 1,000 days of life <sup>11</sup> .
<b>2014 – SECOND INTERNATIONAL CONFERENCE ON NUTRITION (ICN2)</b>	Aims to strengthen the coherence and coordination of policies, to mobilize the necessary resources to improve nutritional status and to enhance international cooperation in order to improve nutrition especially in developing countries.

<sup>10</sup> The Series also called for greater priority for national nutrition programs, stricter implementation of health programs, enhanced intersectoral approaches, and more focus and coordination of international agencies, donors, academia, civil society, and the private sector in the global nutrition system.

<sup>11</sup> For further information on the 1000 days approach please refer to: <http://thousanddays.org/wp-content/uploads/2012/05/WHO-Targets-Policy-Brief.pdf>.

In parallel with international declarations, emergency nutrition interventions have evolved considerably since the late 1970s, and have gradually been improving in quality. This result has been achieved thanks to the development of protocols and guidelines for therapeutic feeding programs, the development of effective food for the treatment of SAM - F75 and F100 milk, ready-to-use therapeutic foods (RUTF)-, and the development of standardized methodologies for the collection of information such as coverage assessments and nutritional surveys (SMART, SQUEAC and FANTA project<sup>12</sup>) and for the monitoring and evaluation of programs' impacts.

Hence, during the last years, scientific research and the commitment of political actors have allowed to identify three strategic pillars on which governments, aid agencies and donors should focus in order to reduce mortality and morbidity related to nutrition<sup>13</sup>. COOPI, in turn, supports its initiatives by orientating its programs towards the following axes:

**1 The adoption of the nutrition security concept** within a global intervention strategy that emphasizes the importance of an integrated<sup>14</sup> approach to address the causes of short/long-term malnutrition. This can be achieved through the promotion of food security, access to and consumption of nutritious food in adequate quantity and quality, social protection, adequate

health care practices, access to health services and improved water supply and sanitation.

- 2** The implementation of the Essential Nutrition Actions (ENA), identified in the **1000 Days Approach**<sup>15</sup>, according to which nutritional interventions must target the child from the beginning of the pregnancy until the second birthday. Mortality, morbidity and irreversible damage in the development are in fact most effectively tackled within this timeframe, while after that most of the interventions will be poorly effective, tardy and very costly.
- 3** The **Synergy with the SUN Movement**, which emphasizes the need for scaling up globally nutritional interventions through efficient actions at the policy level, in the sharing of common results and in the mobilization of financial resources, with special attention to the primary responsibility of governments and a call for improving the organization of support institutions.

<sup>12</sup> SQUEAC (Semi-Quantitative Evaluation of Access and Coverage) is a semi-quantitative methodology for the evaluation of access and coverage of nutrition security projects. SMART (Standardized Monitoring and Assessment of Relief and Transition) is a methodology for carrying out standardised nutritional surveys. The Food and Nutrition Technical Assistance Project (FANTA) is a technical support project, financed by USAID, aimed at developing validated tools for the prevention and treatment of acute malnutrition.

<sup>13</sup> Bhutta et al., 2013; The Lancet, Executive summary

<sup>14</sup> The integrated approach requires that interventions are designed through attentive consideration of the interaction of the root causes of undernutrition. For example, a project of management of acute malnutrition through the distribution of therapeutic foods may include activities to support the reproductive health (to improve prenatal care and promote spacing of pregnancies), supply of drinking water and construction of latrines (through the water and food sanitation strategy which aims to reduce episodes of diarrhea) and interventions supporting agriculture to encourage the production of fruits and vegetables so to promote food diversification.

<sup>15</sup> The Essential Food Security Actions identified in the research carried out by the Lancet and explained in the 1000 initiative Days are: a) promoting adequate nutrition of women; b) promoting Iron and Folic Acid Supplementation and preventing anemia in women and children; c) promoting iodized salt intake for all family members; d) promotion of optimal breastfeeding practices for up to six months; e) promotion of complementary feeding of children aged 6-24 months who are breastfed; f) promotion of good nutritional care of sick and/or malnourished children; g) prevention of vitamin A deficiency among women and children.



# COOPI's approach to nutrition security: key concepts

## *From Nutrition to Nutrition Security*

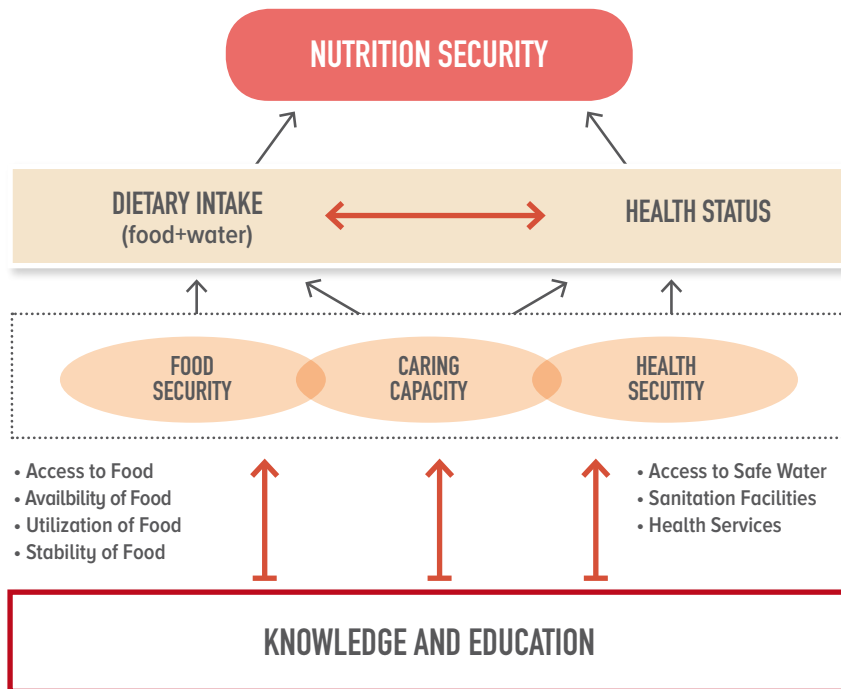
**COOPI believes that good nutrition is a fundamental right for individuals.** It is crucial to improve the nutritional status of individuals and children in order to break the vicious circle of hunger, undernutrition and underdevelopment. Thanks to the lessons learned from the field and the engagement in international research initiatives and knowledge sharing, COOPI's strategy to reduce undernutrition rates on a sustainable basis has been increasingly oriented towards an integrated approach.

In this perspective, COOPI has integrated the concept of **nutrition security** into its comprehensive intervention strategy. FAO defines nutrition security

as **“a situation that exists when secure access to an appropriately nutritious diet is coupled with a sanitary environment, adequate health services and care, in order to ensure a healthy and active life for all household members”**. Nutrition security is different from food security because it takes into account also the adequate care practices, health and hygiene as well as a nutritious diet (FAO, IFAD and WFP, 2014).

*Figure 5 shows the interaction between factors that directly or indirectly influence the nutrition security, starting from knowledge and education, to dietary intake and access to health care.*

**Figure 5:** Conceptual Framework of Nutrition Security - COOPI 2016, adapted from UNICEF 1998 .



- Access to Food
- Availability of Food
- Utilization of Food
- Stability of Food

- Access to Safe Water
- Sanitation Facilities
- Health Services

It is indeed important to consider that the links between the various sectors are complex and specific to the context of intervention and require a thorough needs analysis and knowledge of the mechanisms and livelihoods of households and communities.

Besides emergency interventions, **COOPI has increasingly developed its strategy for the prevention of chronic malnutrition, in particular for improving the health conditions of mothers and infants through behavior change communication (BCC) on exclusive breastfeeding, infant and young child feeding (IYCF)<sup>16</sup>, and nutrition of PLW.** Regardless of whether they are emergency or medium/long-term programs, food security interventions have always played an important role in the fight against undernutrition. COOPI's policy on food security explicitly underscores the nutritional dimension in this sector. When supporting the households in situation of food insecurity through interventions aiming at improving the availability of food resources and access and utilization thereof, COOPI addresses the root causes of malnutrition in a medium/long-term perspective. The integration of nutritional goals (such as acute malnutrition rate reduction, and increasing the number of women who practice exclusive breastfeeding for the first six months of their child's life) within this type of programs allows COOPI's operators to assess their effectiveness and impact in terms of nutrition security. COOPI acknowledges that long-term nutritional impact assessment of these programs is a challenge, and it believes that the partnership with international networks and sharing of evidence-based approaches and initiatives is essential to identify the most effective interventions to be scaled up. COOPI, endowed with its solid expertise in health and nutrition in emergencies, also works in partnership with many stakeholders such as governments, international institutions and community based organizations. In order to optimize the nutritional impact of

humanitarian and development programs, it is required to work in partnership with ministries (such as the Agriculture and Social Affairs and the Nutrition department within the Ministry of Health) and with local civil society organisations, as well as to actively participate in coordination mechanisms, like the nutrition cluster, to support national and local capacities and to promote sustainable interventions.



<sup>16</sup> COOPI, conforming to the WHO, 2012 recommendations, uses the expression "Infant and Young Child" to indicate children aged 0-24 months.

## Intervention axes

Nutrition security is promoted by COOPI through the adoption of five core approaches that are described in the following sections: the integrated approach, 1000 days approach, community and participatory approach; interventions based on needs assessment; promoting action research.

### 1 Integrated approach

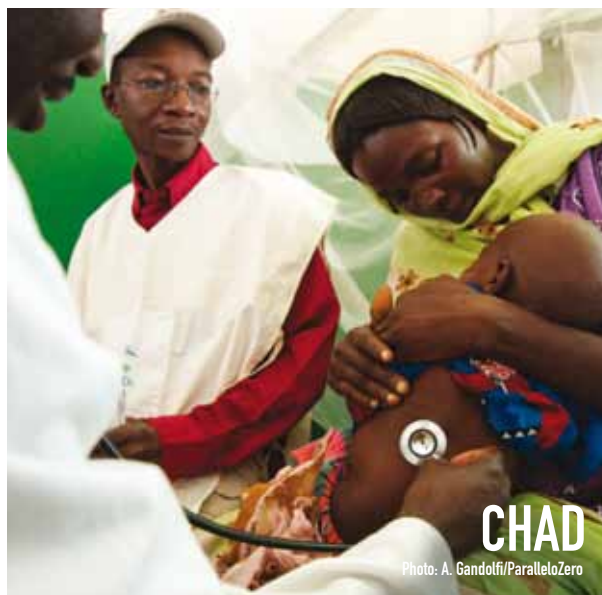
COOPI adopts an integrated approach to nutrition, as child malnutrition is the product of a series of economic, social, family and individual factors. In particular, COOPI focuses on hygiene and sanitation practices and the availability of water, the availability and access to maternal and child health services, and the physical and financial access to food of the households and communities, both in terms of quantity or quality, through food security programs. The child is then considered holistically, as an individual, a member of a household, of a community and, more widely, of a society.

Preventing and reducing malnutrition in a community is crucial to strengthening its resilience<sup>17</sup> because well-nourished individuals are healthier, can work harder and have greater physical reserves. Therefore, they are better able to withstand, endure longer and recover more quickly from external shocks (FAO, IFAD, WFP, 2014). For COOPI nutrition security is both an input to and an outcome of strengthened resilience.

COOPI concentrates its efforts to ensure that nutritional objectives are integrated into all the programs in order to contribute to the nutrition security of the

children and their families. Food security programs, for example, can help improving the nutritional status of individuals in several ways. For instance, they can increase and diversify the household's income or improve access to micronutrient-rich diet. Also, maternal and child health programs may include active screening of malnourished children and the promotion and support of breastfeeding, especially exclusive breastfeeding for six months.

The lessons learned in the field and the evaluations conducted by COOPI teams also show that programs that integrate nutrition sensitive and nutrition specific interventions are the most effective and appreciated by the communities, because they better address their real needs.



<sup>17</sup> Resilience is "the capacity of a system, community or society potentially exposed to hazards to adapt, by resisting or changing in order to reach and maintain an acceptable level of functioning and structure" (UN/ISDR 2004). For more details please refer to: [http://www.unisdr.org/files/7817\\_UNISDRTerminologyEnglish.pdf](http://www.unisdr.org/files/7817_UNISDRTerminologyEnglish.pdf)

## *Good practices*

Combating acute malnutrition means for COOPI to support the households and communities most at risk to achieve nutrition security. The identification of vulnerability criteria and of the undernutrition risks, as well as the definition and implementation of an action that addresses the causes of malnutrition requires an integrated engagement of experts in the areas of nutrition, health, water/sanitation and hygiene and food security. COOPI's experience in Somalia shows that the nutritional impact of these interventions is very important.

## RESPONSE TO ACUTE MALNUTRITION THROUGH AN INTEGRATED APPROACH IN GEDO REGION (SOMALIA)

The pastoral and agropastoral households in the southern regions of Somalia (Gedo, Bay, Bakool and Lower Shabelle) were most seriously affected by nutrition insecurity as their resilience and coping strategies were significantly compromised since the poor outturn of the 2010 "Deyr" season.

Acute malnutrition remained above the emergency threshold of 15%. Nationwide, about 323,000 children were severely malnourished and required urgent care. In this context, COOPI intervened in 2011 and 2012 to contribute to the food security of the most vulnerable families affected by the food crisis by increasing their access to food and water. Thanks to food and water distribution and the supply of containers for

water collection and storage, as well as chlorine tablets for the treatment of water, more than 33,000 people had greater access to safe water and food with an estimated average of 1,971 Kcals/person/day. At least 35,496 people (5,100 households) were educated on hygiene practices by 202 Community Health Promoters trained within the project. Basic agricultural inputs such as seeds, feed and veterinary drugs were provided to 3,800 households dependent on agriculture and/or livestock. This integrated approach allowed for the same families to be targeted by several interventions, with the aim of reducing the risks of malnutrition associated with immediate causes.

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**SOMALIA**  
Photo: COOPI archive

## 2 1000 days approach

Numerous scientific studies, such as the Lancet Series on Maternal and Child Malnutrition (Black et al. 2008) have shown that it is necessary to direct the efforts towards nutrition interventions and towards the “1000 days” window of opportunity. The nutrition security of PLW and of the children in their first 24 months of life (often the most vulnerable groups of the population from the nutritional point of view) plays an important role in COOPI's programs, to either prevent or treat acute malnutrition. In low-income countries pregnant women are often small and have a low body mass index, resulting in poor fetal development and increased risks of pregnancy complications. In addition, a child of low birth weight is at increased morbidity and mortality risk<sup>18</sup>.

**For COOPI, the 1000 days approach is implemented through actions such as iron and folic acid supplementation for the prevention of anemia in pregnant women, the promotion of exclusive breastfeeding up to 6 months of age and optimal complementary feeding practices for children 6-24 months old, and by supporting pregnant women to have access to adequate food during the period of pregnancy and lactation.** All these actions mainly aim at preventing stunting and reducing the risks of acute malnutrition and mortality among infants, young children and PLW.

With reference to the need to distribute food (enriched flour, fortified biscuits, therapeutic products), COOPI assesses the potential impact of such interventions on local economies and supports the whole community with the aim to reach food and nutrition security without compromising nor negatively impacting the ability of communities to regain their livelihoods.

## 3 Community and participatory approach

In order to put in place effective and sustainable interventions, **COOPI ensures that they are adapted to local realities and priorities through the adherence to the national policies of the country and through the construction of partnerships with national institutions that are in charge of nutrition.** Strengthening capacity of local health structures (from community health centers to district hospitals) is one of the key points for the success of an intervention, together with the setting-up of joint supervision mechanisms with local partners to ensure monitoring and an adequate exit strategy for the sustainability of the outcomes. The integration of nutrition interventions into the national policies and the collaboration with the Ministry of Health for the definition and implementation of a shared and effective National Protocol is a key point for the continuity and sustainability of programs. With this perspective COOPI aims at ensuring that prevention and treatment of malnutrition services will be regularly in place and accessible in the long-term.

Collaboration with the communities undertakes an important part of work on the identification of the priorities, the design, the implementation and evaluation of interventions aimed at integrating the activities into the local system and to support the ownership. The involvement of community leaders, influential people, health staff is essential to ensure acceptance and participation in the interventions. Mobilizing community networks remains a strong point of COOPI's nutrition programs in several areas of intervention and maximizes their coverage. In practice, COOPI mobilizes thousands of community agents for active screening of malnourished children, door to door awareness, and the organization of sensitisation sessions (such as the performance

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<sup>18</sup> Black RE et al. *Maternal and Child Undernutrition Study Group. 2008. "Maternal and child undernutrition: global and regional exposures and health consequences".*

of theater plays), through the implementation of creative initiatives to raise community awareness and education.

Through community networks it is also possible to implement outreach strategies with the affected populations by establishing mutual trust relationships, which is the ultimate condition to allow the objectives

and activities to be accepted and supported by the communities in which COOPI intervenes. Community approach is also an important means to build public awareness on optimal health and nutritional practices aimed at replacing dangerous traditional practices, which might represent a risk for the health of infants and be potentially deadly.

### *Good practices*

The community is at the core of COOPI interventions, since it is seen as an engine of change to improve the living conditions and to increase local resilience. The community component plays a fundamental role in the management of acute malnutrition by facilitating the decentralization of activities and improving the coverage of programs.

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### COMMUNITY NUTRITION INTERVENTION IN THE DEMOCRATIC REPUBLIC OF CONGO (DRC)

In 2008 COOPI realized one of the first Community Nutrition program in the DRC to consolidate the previous interventions and to prevent and treat cases of malnutrition in the villages through the Community Nutrition Centers (CNCs).

The project included 6,600 people, comprising 4,945 children and 1,240 women, and called on the mobilization of community based organisations to promote the healthy growth of children 0-59 months old and the optimal infant and feeding practices for PLW.

Thus, the project helped to create and equip the CNCs, to organize monthly community weighing sessions and active screening, to conduct positive deviance studies on nutrition and to train midwives and traditional healers.

COOPI has established a community-based system adapted to the local context and has involved the community, health centers staff and local authorities through a community solidarity system to ensure long-term results.





DRC

Photo: COOPI archive

## 4 Interventions based on needs analysis

**COOPI's nutritional interventions are based on a detailed, structured and multidisciplinary needs assessment and analysis, that takes into account the specific needs of vulnerable groups such as PLWHA.** The concept of nutrition security is useful at this point because it emphasizes the importance to include in the needs assessment other factors affecting the nutritional status.

The approach varies according to the different contexts, be they humanitarian crisis (armed conflicts or disasters resulting from natural phenomena) or chronic crisis. In the first case, COOPI carries out specific emergency nutrition interventions to address the needs of populations affected by the crisis to restore pre-crisis nutritional conditions. In chronic crises situations instead, the underlying causes of malnutrition are tackled, in particular economic and social vulnerabilities, as well as socio-cultural barriers.

Mother-child relationship, food education and the promotion of exclusive breastfeeding are at the heart of COOPI's interventions. Through Knowledge, Attitude and Practices (KAP) surveys related to nutrition behaviours as well as to the access and the use of primary health and water and sanitation services, COOPI identifies the priorities of its interventions to address the real needs of the population. The assessment of nutritional needs is always conducted in coordination with other humanitarian actors, in a logic of complementarity and synergy of efforts.

COOPI has recently participated to the realization of Link NCA (Nutritional Causal Analysis) studies, aiming at optimizing nutrition security programs by providing operational recommendations for nutrition specific and sensitive interventions.

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## *Good practices*

Acute and chronic malnutrition remains a public health concern in both rural and urban areas. The identification of barriers to nutrition security and of the underlying causes of undernutrition requires a thorough analysis of the context of intervention and is functional to design appropriate interventions. COOPI believes that the analysis of the nutritional situation should involve all relevant sectors in order to gain a holistic view of the needs, risks and causes, and to find the best way to respond in an integrated manner.

## KAP SURVEY ON HEALTH AND NUTRITION IN MALUKU – DRC

In 2012 COOPI conducted a qualitative study of the KAP in nutrition as well as of the access to and use of primary medical services and health services for young children and PLW in Maluku II health zone, in the province of Kinshasa, DRC, where community-based nutrition projects had been implemented between 2005 and 2007. COOPI's study has gathered information on the target groups in order to develop an appropriate prevention program.

The survey showed that only 34.2% of infants aged 0-6 months were exclusively breastfed, while children aged 9-11 months did not have enough nutritious food and only 43% of pregnant women

increased their food consumption during the pregnancy period. Similarly, the study showed that the diet of lactating women met the recommended dietary standards in terms of frequency, but not in terms of quality.

The survey also highlighted the importance of the environment and of the role played by influential people in the community for the transmission of the nutrition messages, and the cultural barriers to the good practices. The data are now used in prevention programs implemented by COOPI in the DRC and by the National Nutrition Program (PRONANUT), the survey partner, in its national policy for IYCF.

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## 5 Promotion of research/action

COOPI promotes the collaboration with research institutes and universities specialized in nutrition to improve the quality and the efficacy of its interventions. COOPI takes part into the scientific research by developing innovative strategies to improve humanitarian practices in the fight against undernutrition. The lessons learnt and expertise gained from the experiences in the field can improve the effectiveness of interventions but also can influence national and international practices and policies.

**COOPI believes that collaboration and coordination with the governmental institutions but also with non-governmental organizations (NGOs) are fundamental to share lessons learned and to strengthen synergies resulting in a positive impact on the programs.** Based on these considerations, COOPI has recently joined the Coverage Monitoring Network (CMN), an inter-agency project to improve nutrition programs by promoting quality and coverage assessment tools, capacity building and the sharing of information. COOPI is also an active player in emergency situations where the health and nutrition cluster is active.



# COOPI in the operational management: good practices

Based on the needs analysis, and considering the conceptual framework of the causes of undernutrition, COOPI has defined its intervention strategy that meets two objectives:

**1** Address the nutritional crisis through direct support to individuals suffering of acute malnutrition (especially children under five years of age and PLW) by initiating specific nutrition actions

**2** Support the communities and families of malnourished children to address the underlying causes of malnutrition (food insecurity, inadequate nutritional practices and inadequate hygienic and sanitary environment).

Hence, COOPI implements two types of programs: nutrition-specific interventions and nutrition-sensitive interventions.<sup>19</sup>

## NUTRITION-SPECIFIC INTERVENTIONS

Actions that have a direct impact on the prevention and treatment of undernutrition. Nutrition specific interventions target the immediate causes of malnutrition by increasing food consumption and by fighting against infectious diseases. Examples of specific nutrition interventions include: maternal health and nutrition, micronutrient supplementation, promotion and support of exclusive breastfeeding, promotion of appropriate complementary feeding, food fortification.

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## NUTRITION-SENSITIVE INTERVENTIONS

Interventions designed to address the underlying determinants of nutrition status (including household food security, protection of mothers and children, primary health care services, water, sanitation and hygiene) but do not necessarily have nutrition as a priority goal (FAO, IFAD and WFP, 2014). Sensitive nutrition interventions can also represent platforms for the implementation of nutrition specific actions and potentially raise scale, coverage and effectiveness thereof.

COOPI implements a set of operational approaches set-up during many years of experience in the poorest countries of the world and which

characterize the general approach of the organization to the issue of nutrition security. These concepts are set forth on.

<sup>19</sup> Ruel, M. T., Alderman, H., & Maternal and Child Nutrition Study Group. 2013. "Nutrition-sensitive interventions and programmes: how can they help to accelerate progress in improving maternal and child nutrition?".

## *The choice of nutrition security interventions in emergency contexts*

COOPI's approach to nutrition security programs in situations of acute crisis and humanitarian catastrophe is based on the international institutions' guidelines, with particular regard to the links to food security and water and sanitation programs, and by taking into account the theoretical framework

of the different levels of the causes of malnutrition. COOPI especially refers to the WHO<sup>20</sup> decision tree represented in Table 2. Data on malnutrition rates indicate the seriousness level of the crisis situation and suggest interventions to be implemented to limit the risk of an increase in mortality rates.

**Table 2:**

WHO decision tree for the implementation of nutrition programs<sup>21</sup> - COOPI, 2016. adapted from WHO, 2000

FINDING	ACTION REQUIRED
FOOD AVAILABILITY AT HOUSEHOLD LEVEL BELOW 2,100 KCAL PER PERSON PER DAY	<b>UNSATISFACTORY SITUATION</b> <ul style="list-style-type: none"> <li>Improve general rations until local food availability and access can be made adequate</li> </ul>
MALNUTRITION RATE 15% OR MORE OR 10-14% WITH AGGRAVATING FACTORS.	<b>SERIOUS SITUATION</b> <ul style="list-style-type: none"> <li>General ration (unless situation is limited to vulnerable groups) plus</li> <li>Supplementary feeding generalized for all members of vulnerable groups especially children and pregnant and lactating women</li> <li>Therapeutic feeding programme for severely malnourished individuals</li> </ul>
MALNUTRITION RATE 10-14% OR 5-9% WITH AGGRAVATING FACTORS	<b>RISKY SITUATION</b> <ul style="list-style-type: none"> <li>No general rations; but</li> <li>Supplementary feeding targeted at individuals identified as malnourished in vulnerable groups</li> <li>Therapeutic feeding programme for severely malnourished individuals</li> </ul>
MALNUTRITION RATE UNDER 10% WITH NO AGGRAVATING FACTORS	<b>ACCEPTABLE SITUATION</b> <ul style="list-style-type: none"> <li>No need for population interventions</li> <li>Attention for malnourished individuals through regular community services</li> </ul>
<b>AGGRAVATING FACTORS</b>	<ul style="list-style-type: none"> <li>General food ration below the mean energy requirement</li> <li>Crude mortality rate more than 1 per 10 000 per day</li> <li>Epidemic of measles or whooping cough (pertussis)</li> <li>High incidence of respiratory or diarrhoeal diseases</li> </ul>

<sup>20</sup> It is important to notice that these directives are provisional and subject to change when new thresholds are set by revised WHO standards for growth (Office of the United Nations High Commissioner for Refugees, UNHCR, WFP 2011). At the international level, other tools are in use for the evaluation of the severity of the situation and as a guidance for humanitarian actors' strategic decisions. For instance, the Integrated Food Security Phase Classification (IPC), which is a technical manual for the integrated framework of food security classification, released by the Food Security Analysis Unit of the FAO (FSAU/FAO).

<sup>21</sup> The WHO decision tree was adapted from Doctors Without Borders. 1995. "Guide Lines on Nutrition".

Overall, decisions on the type of nutrition intervention are based on the GAM rate as well as on the assessment of the underlying factors and needs, risks and recent trends.

## WASH AND NUTRITION IN EMERGENCY

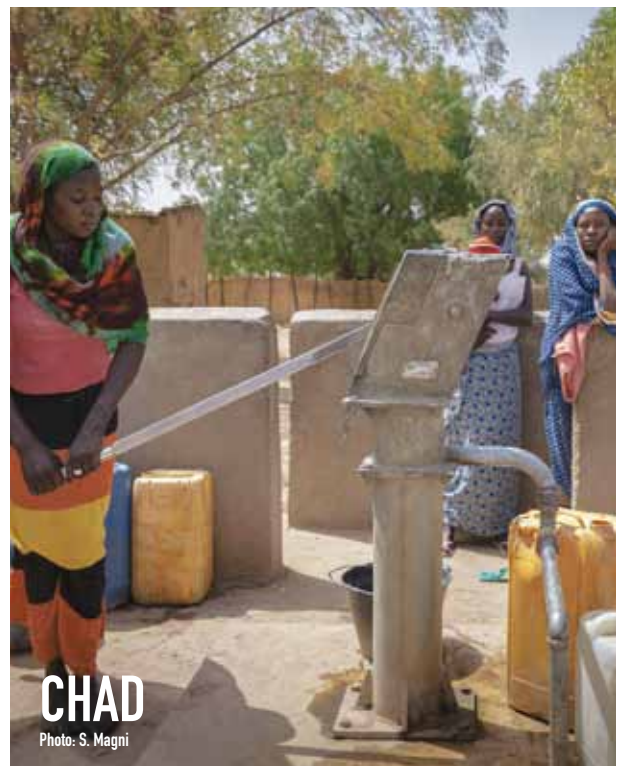
**During the acute phase of a humanitarian crisis the lack of sufficient safe water supplies for drinking, cooking and personal and domestic hygiene involves health risks which, in the case of infants and young children, often result in disease and, therefore, in malnutrition, associated with drastically increased risk of death. According to the WHO, the number of people who die each year from diarrhea transmitted through water is between 1.8 and 2.2 million, of which 90% are children under 5 years of age. For this reason, COOPI's nutrition programs often include interventions for the installation of drinking water points and toilets to reduce environmental risks and diseases transmitted through the water for households, communities and health centers, as well as sensitization interventions for the change in hygienic practices.**

In cases of humanitarian crises, COOPI intervenes through rapid response mechanisms, such as RRNC (Rapid Response to Nutritional Crises) in DRC, which is activated through an early warning system, in partnership with the nutrition cluster. COOPI aims at prioritizing its interventions in the countries, and within these countries, in the geographical areas facing the highest prevalence of GAM and where risks and aggravating underlying factors might have a strong influence on undernutrition.

Through the rapid needs assessments and nutritional

surveys, GAM levels are measured in the affected geographical areas. This information allows COOPI to identify the most appropriate nutritional programs, targeting the most vulnerable groups of the population, especially children up to 59 months of age and PLW. COOPI designs its interventions targeting context-specific problems, either in emergency or in post-emergency phase, following an analysis of the symptoms and causes of malnutrition and mechanisms that underlie food insecurity. Because of this, emergency programs are designed not only to address the immediate problems of a crisis, but also in the perspective of being connected to and aligned with medium/long-term programs, through a “contiguum” approach to emergency/development (Urgence Réhabilitation et Développement, 2015).

The best practices derived from COOPI's experience, presented in the following paragraphs, illustrate the operational management of nutrition-specific interventions.



**CHAD**  
Photo: S. Magni

## *Good practices*

Nutritional emergencies (with GAM rate higher than 15% based on the results of SMART surveys) require the activation of rapid response mechanisms. In these situations, COOPI intervenes deploying field teams, which are prepared and trained in the treatment of malnourished children with or without medical complications, by supporting the communities and health institutions.



**MALI**

Photo: COOPI archive

## MANAGEMENT OF SEVERE ACUTE MALNUTRITION (MALI)

Southern Mali and the wider Sahel area have faced a dramatic nutritional emergency displaying high rates of severe acute malnutrition, with and without medical complications, exceeding the alert thresholds. The SMART survey conducted in 2012 indicated that the Segou region was the most affected, with global acute malnutrition rates of 12.2% and severe acute malnutrition rates of 3.8%.

COOPI's intervention aimed at reducing mortality and morbidity associated with severe acute malnutrition

in children aged 6-59 months. Therefore, 74,967 children were screened and 4,424 children with severe acute malnutrition (of which 3,997 without medical complications and 427 with medical complications) were treated, reaching 98% of the target. Along with mass screening campaigns and SAM treatment, awareness sessions on basic nutrition and hygiene practices were carried out, together with the training of 1,095 community volunteers and district health staff.

## *Good practices*

The fight against acute malnutrition requires specific interventions that address the immediate causes, and have as a primary objective the reduction of mortality in children under five years of age. This type of interventions represents for COOPI an opportunity to support the Ministry of Health in the countries involved in the opening of the nutrition units, able to effectively cope with cases of malnourished children. This support goes according to a standardized protocol, in the perspective of sustainability of support services for malnutrition with the help of the community itself, either in acute or chronic crisis situations.

### IMPROVING THE MANAGEMENT OF ACUTE MALNUTRITION IN NON-CONFLICT AREAS, TERRITORY OF LUBUTU (DRC)

The territory of Lubutu, Province of Maniema in the DRC, faced dramatic rates of malnutrition in 2011, as confirmed by nutritional anthropometric surveys. The prevalence of GAM and SAM reached 19.8% and 6.7% respectively, well above the critical threshold of extreme emergency (GAM 15% and SAM 2%).

In this context, COOPI intervened in the period between 2011 and 2013 to provide an emergency response to treat severely malnourished children in the Lubutu and Obokote health zones, through an integrated approach to prevent and manage acute malnutrition. COOPI, in collaboration with UNICEF, has helped to reduce the mortality and morbidity rates related to malnutrition in children aged 6-59 months and has improved their access to the integrated system of prevention and treatment. Thanks to the project, 30 nutrition units were created, 295 people from the nutrition units were trained and 520 active screenings were performed. Communication and awareness campaigns on nutrition were carried out, including radio advertisements, concerts and theater sessions. The project enabled the treatment of 7,222 severely malnourished children without medical complications and of 248 with medical complications. In addition, 34 mother support groups on IYCF practices were set-up and recommended practices on exclusive breastfeeding and complementary feeding were promoted. A peculiarity of the community approach in this project was represented by the involvement of the parents

of malnourished children and school students, who were trained on performing screenings with positive nutrition messages within their communities. This approach was presented in New York City during a conference held by UNICEF, the donor of the project.



## *Diagnosis, Surveillance and Monitoring of the nutrition situation*

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The nutritional status of populations in emergency situations is very vulnerable and subject to fluctuations and changes in the context. Assessing the risks (price increase, significant population displacement, increased morbidity) is also fundamental, in conjunction with continuous monitoring of the context and of the active participation in nutrition surveillance system.

**COOPI**, in order to shape its interventions and better meet the needs, **conducts extensive qualitative and quantitative nutritional assessments**, especially by participating in SMART anthropometric surveys, in KAP evaluations and surveys on IYCF practices, in surveys on micronutrient intakes and in SQUEAC coverage surveys. Information hereby collected

represents the basis for decision making on the type of interventions needed for malnutrition management. **COOPI also contributes to the establishment of a nutrition surveillance and early warning system in the countries of intervention.** This system allows to monitor the nutritional status of the population through regular data collection and also relies on the community network during the active screening campaigns.

To find out whether the intervention is appropriate and adequate for the context and how it can be improved in the future, it is essential to understand the drivers of successes and failures. To this end, COOPI sets up a monitoring and evaluation system for all the children enrolled in the programme.

## *Promotion of maternal and child health*

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COOPI's nutrition security programs are closely related to those promoting maternal and child health, and are often two sides of the same coin. Feeding practices of infants and young children are at the heart of care practices and therefore require appropriate support through:

- Prenatal (iron supplementation to prevent iron deficiency anemia, folic acid supplementation etc.) and post-natal care;
- Family planning: spacing and limiting the number of pregnancies have an impact on the nutritional status of pregnant women to prevent low birth weight and other problems;

- Nutrition of pregnant women, since their nutritional status has a direct impact on the child's weight at birth;
- Prevention of mother-to-child HIV transmission (PMTCT);
- Improving obstetric care through deliveries assisted by qualified personnel;
- Vaccinations and vitamin A supplementation.

Through the support to existing health structures, or the establishment of new centers, COOPI aims to achieve, where possible, the Integrated Management of Childhood Illness (IMCI), through an integrated approach to child health based on primary health care for children under five years of age.

## *Promotion of appropriate infant and young child feeding practices*

IYCF is the subject of interventions which aim at protecting infants and young children who were breastfed or those who were not, so to meet their nutritional needs. COOPI's priority interventions include the protection and promotion of exclusive breastfeeding for the first 6 months of life of the child, the continued breastfeeding up to 24 months, minimizing the risks of artificial feeding and enabling appropriate and safe complementary feeding. In exceptionally difficult circumstances, infants and young children require special attention<sup>22</sup>. In order

to protect the well-being of mothers and children it is essential to improve care practices, in particular to protect and promote the nutritional, physical and mental health of PLW. For this reason, COOPI also piloted integrated nutrition and protection interventions to ensure psycho-social support to the mother-child pairs affected by acute malnutrition<sup>23</sup>. Taking into account the psycho-social aspects of malnutrition is not only a humanization of health care, but it is also crucial to improve the performance of the management of SAM.



**NIGER**

Photo: D. Aprile

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<sup>22</sup> Children living in a community with high HIV prevalence are more at risk from malnutrition, especially the orphans and infants who are underweight at birth and those under 6 months who are severely malnourished because in these cases it is difficult to ensure that the children are breastfed.

<sup>23</sup> An example can be provided by the program set up in Tillabery - Niger, where COOPI, in cooperation with UNICEF, worked to ensure a comprehensive psychosocial support to mothers and children affected by undernutrition.

## *Prevention of malnutrition through communication for behavioral change*

The curative approach is undoubtedly a priority in order to treat acute malnutrition. However it needs to be inseparably coupled to the preventive approach to avert future cases by adopting BCC techniques, which involves working with people and communities in order to:

- 1 promote healthy behaviors consistent with their living conditions;
- 2 create favorable conditions so to allow them to establish and maintain positive behaviors.<sup>24</sup>

COOPI's preventive approach aims at promoting a healthy diet through nutrition education to reduce the burden of undernutrition, micronutrient deficiencies and low birth weight. It is therefore crucial to focus on promoting optimal IYCF practices, such as breastfeeding and complementary feeding, growth monitoring, dietary diversification for children and PLW, including locally available nutrient-rich foods, and through cooking demonstrations. To promote good practices, it is essential to adapt a vis-à-vis communication with targeted beneficiaries to achieve behavior changes. There are two complementary types of communication:

- mass communication through concerts, plays and community radios by involving local artists who master the local cultural context, the language and who know how to tailor messages that are acceptable to the community. Awareness raising activities within health centers and community as well as social mobilizations are also part of the mass communication activities and allow to reach the entire population;
- interpersonal communication through counseling

during home visits (peer counseling) and support groups to promote mutual assistance and implementation of best practices within the community.

Communication addresses targeted individuals but also other influential audiences such as fathers, grandmothers, stepmothers, community leaders and others to achieve behavioral change. COOPI works primarily with communities to adapt to the local culture and customs.



<sup>24</sup> For further information please refer to: International Federation of Red Cross and Red Crescent Societies, IFRC. 2010. "Behaviour change communication (BCC) for community-based volunteers - Trainer's manual".



The promotion of optimal feeding among infants, children and pregnant and lactating women is a crucial intervention to prevent malnutrition. The use of innovative and creative methods of communication, such as cooking classes and cooking demonstrations, allowed to spread messages about good nutrition practices on a large scale in urban contexts such as Kinshasa, in the DRC, and in Lima, in Peru, in order to facilitate changes in dietary behavior.

### COMMUNITY APPROACH ON EXCLUSIVE BREASTFEEDING AND NUTRITION OF PREGNANT WOMEN (DRC)

Nutrition surveys that have been conducted since 2010 in DRC have shown that the nutritional status of children under 6 months and of women of childbearing age was dramatic. Between 2013 and 2014 COOPI conducted an intervention in the Kimbanseke (Province of Kinshasa) and Kwamouth (Bandundu Province) health zones to promote the best practices in nutrition at the family and community level. The innovative approach of the intervention was based on the assumption that the involvement of communities, including influential people, could entail a change in behavior.

The majority of prevention initiatives until then had been focused on the technical skills of health personnel, thus neglecting to provide technical

advice during home visits and to identify the barriers to behavior change.

After the identification of this important limitation, COOPI intervened by using different communication channels, including participatory communication and the mass media, to promote key nutrition practices at family and community level. In total, 767 people among health workers and the community have been trained and a change in behavior could be measured in the target population of 324,306 inhabitants. Consistency and repetition of messages by various people (partners of the project, health centers, the entourage and influential people who were sensitized) were decisive drivers for behavior changes in Kimbanseke.

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### NUTRITION EDUCATION AND AWARENESS RAISING FOR CHILDREN AT RISK OF MALNUTRITION (PERU)

The dietary intake in Peru, particularly in marginal urban areas, is generally poor in nutrients. Household poverty leads to high rates of undernutrition and micronutrient deficiencies. At the same time advertising campaigns are promoting “junk food” (soda, fries and burgers) with harmful effects on the health and development of young children. In this context, COOPI works with several residential care facilities for street children so to promote a healthy diet.

COOPI has been working since 2005 with Hogar San Camilo, that hosts PLWHA, La Sagrada Familia, that hosts abandoned children who are exposed to drugs, violence and prostitution, Casa de Panchita (day care center for girls and young housekeepers)

and CIMA (Centro Integración de Menores con Amor, helping children from 8 to 18 years old). Cooking classes addressed to the whole family were organized to promote nutritious and affordable food, such as fresh fruits and vegetables. A weekly course of four sessions for 120 people was set in the Casa de Panchita and Hogar San Camilo, and ten cooking classes for children were held in every residential care facility. A total of 120 families benefited from COOPI sponsorship program and thus consumed fresh and cooked vegetables at least once a day. In addition, 300 children of the sponsorship program became aware of the nutrients in foods and learned ten recipes with fresh and cooked vegetables.



## *Treatment of moderate malnutrition*

### FOOD ASSISTANCE

Food assistance is part of COOPI's intervention strategy during crisis to ensure adequate nutrition through general and/or targeted distributions to vulnerable households to avoid excessive mortality, the rise of acute malnutrition rates over the emergency threshold or harmful coping mechanisms such as selling off the means of production. Food assistance can be provided in different forms, depending on the context and on the needs: through food distributions (general, when food distribution is addressed to the entire population of a given area, or targeted, if addressed to a particular group, such as children under five years of age, pregnant and lactating women) or through distribution of cash, vouchers for food (coupons) and food for work program.

### SUPPLEMENTARY FEEDING

Targeted supplementary feeding provides a food supplement to people suffering from moderate malnutrition to prevent them from becoming severely malnourished and to rehabilitate them. COOPI carries out targeted supplementary feeding programs that have the following specific objectives:

- Treat moderate malnutrition among children, PLW with children under 6 months of age, adolescents, sick people, PLWHA and the elderly;
- Reduce the risk of death and disease in malnourished children under five years of age;
- Restore normal nutritional status of children transferred from therapeutic feeding programs (that is to say children recovered from SAM, but who continue to meet the criteria for MAM).

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## *Treatment and prevention of severe acute malnutrition*

### **INTEGRATED MANAGEMENT OF ACUTE MALNUTRITION (IMAM)**

Severe acute malnutrition remains a major killer of children under five years of age. Until recently, its treatment has been restricted to facility-based approaches, greatly limiting its coverage and impact.

The community-based approach adopted by COOPI involves timely detection of severe acute

malnutrition among children between 6 and 59 months of age in the community and provision of treatment for those without medical complications with RUTF or other nutrient-dense foods at home. If properly combined with a facility-based approach for those malnourished children with medical complications and implemented on a large scale, community-based management of severe acute malnutrition could prevent the deaths of hundreds of thousands of children<sup>25</sup>.

In order to ensure durability, COOPI implements the existing national protocols for the management of malnutrition. Exit strategies or long-term support plans are considered at the beginning of interventions. The success of the curative approach is determined both by the enhancement of the health workforce capacity through training and retraining and by mobilization, which is essential to sensitize the community and to facilitate their acceptance.

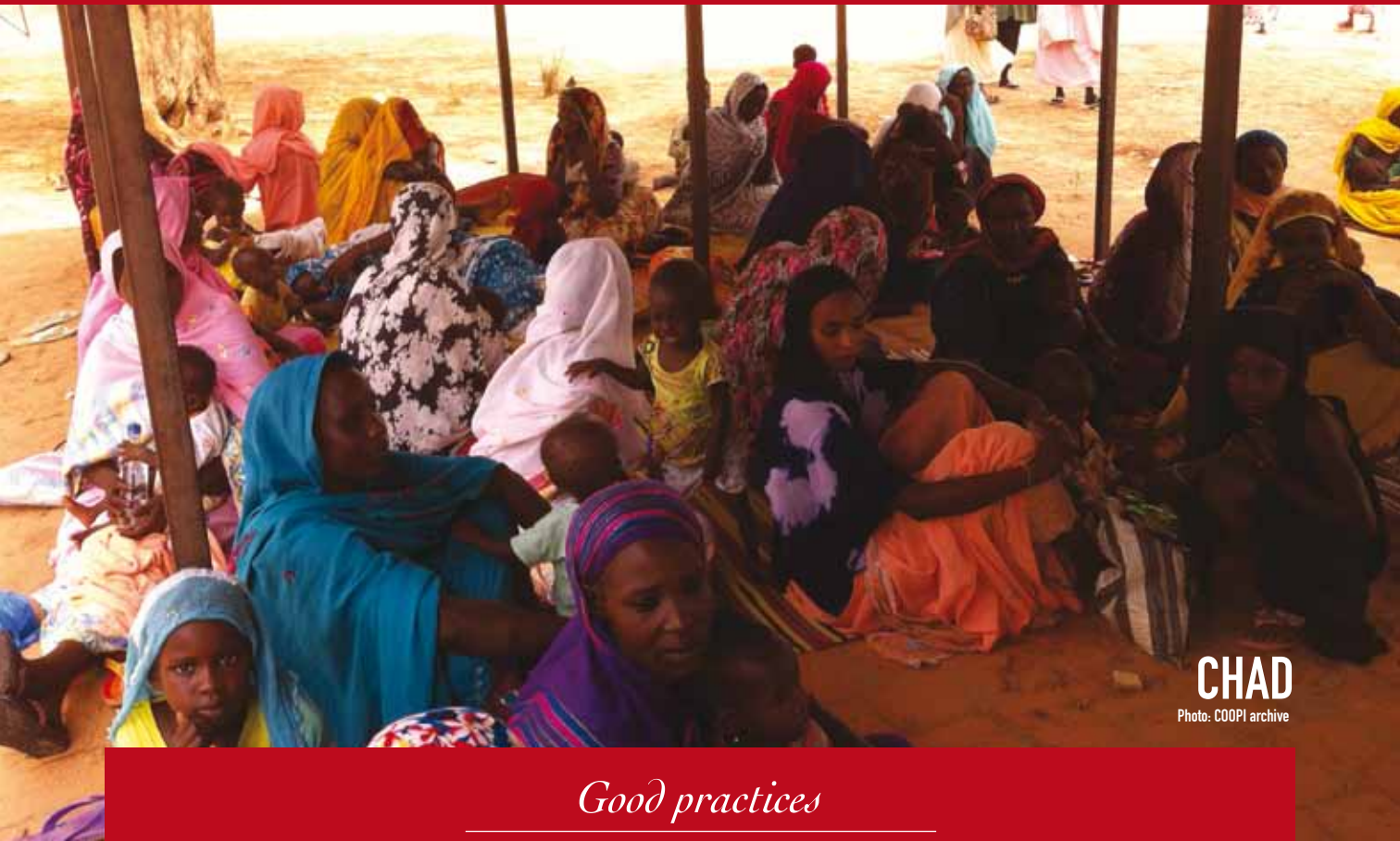
In particular, COOPI supports the Supplementary Feeding Programme (SFP), the Outpatient Therapeutic Programme (OTP) for children and women with SAM without medical complications and the Stabilisation Centers (SC) for children with SAM and medical complications, that treat children and women affected by malnutrition at all levels. Direct management of SFP, OTP and SC in the first phase of the emergency is often replaced by programs which support, directly or indirectly, the health centers, which are managed by local organizations and authorities. The handover is done during the post-emergency phase, with a view to supporting local communities to ensure essential health services to children.



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<sup>25</sup> WHO, UNICEF, WFP. 2007. "A Joint Statement by the World Health Organization, the World Food Programme, the United Nations System Standing Committee on Nutrition and the United Nations Children's Fund".

For further reference please visit: [http://www.who.int/maternal\\_child\\_adolescent/documents/pdfs/severe\\_acute\\_malnutrition\\_en.pdf?ua=1](http://www.who.int/maternal_child_adolescent/documents/pdfs/severe_acute_malnutrition_en.pdf?ua=1)



CHAD

Photo: COOPI archive

### *Good practices*

The implementation of the community-based management of acute malnutrition allows about 80% of children with severe acute malnutrition to be treated at home thanks to RUTF. This approach has resulted in a dramatic increase in program coverage and, consequently, of the number of children treated successfully.

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## COMMUNITY BASED MANAGEMENT OF MALNUTRITION (CHAD)

Over a three year period (2013-2016), COOPI has supported, through ECHO fundings, health centers in the health districts of Goz Beida and Koukou, in Eastern Chad, in setting up a community based management of malnutrition program. During this period, COOPI, with the support of WFP, treated 1,126 malnourished children with medical complications, 8,213 children with severe acute malnutrition and 12,215 children with moderate malnutrition. The community approach has always been a key element of the program, with the involvement of community management committees of health centers that were the link between COOPI and community networks, whose tasks concerned the active screening, the

finding of abandonment cases and sensitization on key messages to fight malnutrition.

COOPI has always supported an integrated approach to health and nutrition by implementing the Chadian National Protocol for the Management Acute Malnutrition, and through a close collaboration with the District Health Delegation. In addition, IMAM has been consistently supported by the referencing of cases to nutritional supplementation units (program for MAM cases funded by WFP) and also to the stabilisation centers in case of medical complications. In 2014 COOPI included the WASH component to improve sanitation in health centers according to the "WASH in nut" ECHO strategy.

## COMMUNITY-BASED MANAGEMENT OF MALNUTRITION (MALAWI)

Since 2007, COOPI piloted a community-based management of acute malnutrition program in Malawi, where the prevalence of malnutrition was dramatically high, especially in the Southern and Central regions that recorded GAM rates higher than 10%.

In 2007-2009, COOPI intervened in the districts of Lilongwe and Salima in the Central Region, where 6,500 children were suffering from acute malnutrition. The project aimed at developing the capacity of local communities and of health facilities personnel to prevent, identify and treat acute malnutrition in order to reduce morbidity and mortality among children under five years of age. Strengthening community-

based capacities contributed to ensure sustainability of malnutrition treatment and prevention after the end of the intervention.

The training of health staff included surveillance, anthropometric screening and referral, treatment protocols and major diseases linked to malnutrition. Several community outreach activities were also conducted, from educational sessions on child protection, nutrition, to preschool activities, food diversification and culinary sessions. Demonstration gardens (permaculture, legumes and fruit trees) and educational sessions were also organized in targeted households with poultry and seed distributions.

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MALAWI

Photo: Il Maestro e Margherita

## Nutrition at school

**COOPI is piloting school nutrition programs in some countries through support to school canteens, distribution of meals rich in micronutrients by means of the voucher system and in the form of cash transfers (CTs)<sup>26</sup> to the most vulnerable families.**

Beyond poverty, which prevents many families from sending their children to school, enrollment and attendance rates are low because of other factors, including:

- Traditional factors: sending girls to school notably implies a rupture with the customary expectation that girls help their mothers with housework;
- Hunger: when they understand that they will be enrolled to school, children hide in the bush, refusing to go. They fear the hunger torments reported by elders and prefer to engage in artisanal extraction of minerals or to go to the fields where they can earn money and feed themselves and their families;
- Distance: children have to travel long distances to reach the school (in some cases 10 km).

The establishment of school canteens programs by COOPI allows to reverse these trends and to reduce the economic constraints of families. Given that children without a healthy and balanced diet suffer from nutrient deficiencies and weaknesses that prevent them from attending classes regularly, the assurance of a daily meal boosts regular attendance and improves the ability to concentrate, and therefore school performance. Regular attendance also enables them to acquire the skills and utilize the tools that are fundamental not only at the individual level, but also at the community level to promote the

development of the country. Besides helping to break the cycle of hunger and poverty, school canteens limit the exploitation of children, and thus constitute a safety net for many children and their families.

Nevertheless, it is important to highlight that the direct impact on the reduction of acute malnutrition rates of school nutrition programs is limited, if compared to programs adopting the 1000 days approach. However, there is evidence that these interventions can reduce hunger, stimulate learning and target micronutrient deficiencies, as in the case of iron supplementation. In addition, the effectiveness of these programs increases when integrated with school health interventions (control of anaemia in adolescent girls, deworming campaigns, educational sessions on hygiene and nutrition practices targeting school pupils and parents)

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<sup>26</sup> Cash Transfer interventions are recognized to have great potential to improve nutrition and in preventing the deterioration of the nutritional state. They take a wide range of forms, including cash-for-work programs, direct transfers and coupon schemes.

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# ACRONYMS

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- AIDS:** Acquired Immune Deficiency Syndrome
- BCC:** Behavior Change Communication
- CMN:** Coverage Monitoring Network
- CNC:** Community Nutritional Centers
- CT:** Cash Transfer
- FANTA:** Food and Nutrition Technical Assistance Project
- FAO:** Food and Agriculture Organization
- GAM:** Global Acute Malnutrition
- GDP:** Gross Domestic Product
- HFA:** Height-for-Age
- HIV:** Human Immunodeficiency Virus
- IFRC:** International Federation of the Red Cross / Red Crescent
- IMAM:** Integrated Management of Acute Malnutrition
- IMCI:** Integrated Management of Childhood Illness
- IYCF:** Infant and Young Child Feeding
- KAP:** Knowledge, Attitudes and Practices
- MAM:** Moderate Acute Malnutrition
- MDG:** Millennium Development Goals
- MUAC:** Mid-Upper Arm Circumference
- OTP:** Outpatient Therapeutic Programme
- PLW:** Pregnant and Lactating Women
- PLWHA:** People Living With HIV/AIDS
- PMTCT:** Prevention of Mother-to-Child Transmission of HIV
- RRNC:** Rapid Response to Nutritional Crises
- RUTF:** Ready-to-Use Therapeutic Food
- SAM:** Severe Acute Malnutrition
- SC:** Stabilisation Centers
- SD:** Standard Deviation
- SMART:** Standardized Monitoring and Assessment of Relief and Transition
- SQUEAC:** Semi-Quantitative Evaluation of Access and Coverage
- SFP:** Supplementary Feeding Programme
- SUN:** Scaling Up Nutrition (Movement)
- UNHCR:** United Nations High Commission for Refugees
- UNICEF:** United Nations Children's Fund
- WFA:** Weight for Age ratio
- WFH:** Weight for Height ratio
- WFP:** World Food Programme
- WHO:** World Health Organization



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