We can overcome Undernutrition:

Mali

Case Study
In Mali, a child dies every ten minutes due to malnutrition\(^1\). Beyond the human consequences, undernutrition perpetuates the cycle of poverty and hinders the country’s economic growth. It leads to significant health costs, poor cognitive functions and loss in productivity. These factors undermine the populations’ resilience to climate, economic and security shocks, which Malians have painfully confronted during recent years.

Investing in nutrition globally is sustainable and one of the most cost-effective investments. In Mali, evidence indicates that for every dollar spent on scaling up nutrition-specific interventions, there is an economic return of US$ 11\(^2\). The government of Mali acknowledges that. It made clear its commitment by joining the SUN\(^3\) movement in 2011 and by launching a National Nutrition Policy and a costed Multisectoral Nutrition Action Plan that proposes a holistic approach to tackle malnutrition.

The resilience agenda enhanced through the Global Alliance for Resilience (AGIR)\(^4\), to which Mali has subscribed, reinforces this multi-sectoral dimension whilst focusing more interventions on vulnerable households and paying a special attention to children under 5 and women. The aim is to tackle the root causes of food and nutrition insecurity underlaid by demographic pressure, climate change and exacerbated by the 2011-2012 political crisis.

In this complex and fragile context, the humanitarian and development teams of the European Union (EU) work in a concerted manner in close collaboration with government services, local authorities and civil society at all levels. For the last 10 years, the EU has supported Mali to develop its institutional capacity and effectively implement nutrition-specific and sensitive programmes across various sectors.

In 2015, the national prevalence of stunting was 30.4\(^6\), reflecting a critical situation according to WHO\(^7\). In the aftermath, of the 2011-2012 events, the rate of stunting reduction has reduced to 1.11% well below the annual population growth at 3%. Today, approximately 900,000 children under 5 are stunted. According to projections, this will increase to about 1.1 million by 2025. A significant mobilisation from all parties along with additional resources are required to reverse these trends.

### Effects of Stunting

Children who suffer from chronic malnutrition fail to grow to their full genetic potential, both mentally and physically. It significantly increases the likelihood of premature death, and those that survive are prone to ill health and are less able to contribute to an active and productive life. The condition is measured by stunting—shortness in height compared to others of the same age group—which manifests itself in the early life cycle of children, and the effects of which are irreversible.

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\(^{1}\) Quoted from the National Nutrition Policy, 2013.

\(^{2}\) Source: GNR 2014, citing Hoddinott 2013 (online publication date).

\(^{3}\) SUN: Scaling up Nutrition.

\(^{4}\) The Global Alliance for Resilience (AGIR) is a framework that helps to foster improved synergy, coherence and effectiveness in support of resilience initiatives in the 17 West African and Sahelian countries.

\(^{5}\) WHA: World Health Assembly.

\(^{6}\) Source: MICS 2015.

\(^{7}\) WHO: World Health Organisation.

Cover page photo by: EU Delegation Mali - Céline Lhoste.
Various forms of undernutrition reflecting combined forms of deprivation faced by infant and young children

Besides stunting, undernutrition manifests itself in many forms almost always associated with micronutrient deficiency. Anaemia, mainly related to iron deficiency and parasitic diseases, affects 81.6% of children (6 to 59 months) and 51.4% of pregnant women. Zinc and vitamin A deficiency are widespread but poorly documented. Acute malnutrition (wasting) has been for many years above the alert threshold (10%). Every year, about 700,000 children under five are affected by acute under-nutrition including 180,000 facing its most severe form, being at high risk of mortality.

The first two years of child’s life are critical for his/her mental and physiological development. Deprivations during this period may cause damage that can last a lifetime. A 2014 study highlights that 38.5% of children under 2 in Mali suffers from monetary poverty affected by acute under-nutrition including 180,000 facing its most severe form, being at high risk of mortality.

Widespread poverty and high vulnerability to a variety of shocks

Stunting prevalence (from 46.4% to 42.4%) is twice higher in the three lowest quintiles than in the wealthiest quintile (21.2%)7. Poverty prevents the majority of Malians accessing diversified food and essential basic services such as health, which directly impacts on their nutritional status. In 2014, income poverty affected 52.8% and 47.6% of inhabitants in rural and urban zones respectively. With one of the highest population growth rates worldwide, Mali is going through a major social transformation. An increasing number of youth are landless and unemployed. They have low productive capacities and are highly dependent on erratic labour and food markets for survival. It is estimated that one Malian out of five is food insecure. This situation worsens with the occurrence of natural or man-made disasters, such as drought, floods, locust invasion, market disruption and conflicts. In the last four years, the combination of several shocks has resulted in half of the population of the northern region being critically food insecure and requiring large-scale assistance to avoid further destabilisation of the area. The situation got even more acute as insecurity undermined the humanitarian response and jeopardised the ability to deliver basic services to the population. In 2016, the situation still remains precarious with the double challenge to respond to massive immediate food and nutrition needs and to build resilience in the long-term.

Inappropriate feeding and care practices for young children

- Exclusive breastfeeding from 0 to 5 months: 32.6%9.
- 6-23 months with Minimum Acceptable Diet: 3.3%10.
- 6-23 months with Minimum Dietary Diversity: 13.5%11.
- Complete vaccine coverage: 20.2%12.
- Treatment of diarrhoea with ORS13 and Zinc: 2.3%14.

Precarious social and health conditions of women

The education level attained by mothers and the nutritional status of their children are closely correlated. Stunting prevalence is twice higher (40.1%) for children with mothers with no education than for children with mothers having reached secondary education (21.2%)15. Similarly, close birth spacing increases likelihoods of undernutrition and poor and irregular contact between health services and pregnant and lactating mothers reduces the opportunities to ensure adequate micronutrients supplementation and to communicate messages on childcare and feeding practices. In rural areas, only a third of pregnant women have the recommended four prenatal visits.

Lastly, although women actively participate to the household economy they rarely have control over resources (such as land and household budget) and too few of them are involved in community decisions. This limits their empowerment and ability to implement good child care and feeding practices and may affect their children’s nutritional status.

7 Source: EDS 2012-2013
8 Prevalence of acute malnutrition: 13.5%. Source: SMART 2015
9 Percentage of infants below 6 months exclusively breastfed. Source: MICS 2015
10 Percentage of children from 6 to 23 months exclusively breastfed. Source: MICS 2015.
11 Percentage of children from 6 to 23 months having received food from at least 4 food groups during the 15.5 preceding days. Source: MICS 2015.
12 Percentage of children from 6 to 23 months having received at least the minimum dietary diversity and minimum meal frequency during the preceding day. Source: MICS 2015.
13 Source: MICS 2015.
14 Percentage of children from 6 to 23 months having received all six recommended vaccinations by the national programme prior to their first birthdays. Source: MICS 2015.
15 ORS: Oral Rehydration Salt.
16 Source: Multiple Overlapping Deprivation Analysis (MODA), Unicef, 2014.
17 Source: EDS 2012-2013
18 Source: EDS 2012-2013
20 Prevalence of excision: 82.7%. Source: MICS 2015.
21 Indicator of early fertility or percentage of women between 20-24 who had at least one live birth before 18. Source: MICS 2015.
22 Composite Fertility Index (CFI) for women from 15 to 49. Source: MICS 2015.
23 Exclusion and Female genital mutilation. Source: MICS 2015.
24 The prevalence of severe stunting is twice higher (28.9%) in case of closely spaced pregnancies than when birth spacing is over 4 years (14.1%). Source: EDS 2012-2013.
25 Source: EDS 2012-2013.
Ensure every Malian has a good nutritional state for his/her well-being and for the national development. 

Mali’s commitment to overcome undernutrition

The government is committed to reduce the prevalence of stunting by two thirds by 2021. Reaching this ambitious target will require tremendous efforts and synergies of action.

A political momentum on nutrition to be consolidated

The newly launched Strategic Framework for Economic Recovery and Sustainable Development (CREDD) (2016-2018) promotes cross-sectoral strategies and identifies the targeting of the poorest as a common theme of governments action.

Amongst other objectives, it proposes to guarantee food security for all, improve the nutritional status of the most vulnerable and to pursue gender equity measures. This general framework confirms the government’s ambition to tackle food and nutrition insecurity and enhance the resilience of the most vulnerable population.

Indeed, during the course of the past 5 years, much progress has been made to address undernutrition in Mali. After organising a National Nutrition forum in 2010, Mali joined the international SUN (Scaling Up Nutrition) movement in 2011 reinforcing its political commitment to nutrition. In 2013 a new National Nutrition Policy (PNN) was adopted based upon extensive consultations across sectors involving numerous Ministries.

This policy includes nutrition-specific strategies such as monitoring child growth and development, improving infant and young child feeding practices, and reducing micronutrient deficiencies. The PNN also proposes to integrate nutrition objectives in development programmes of other sectors. This has been achieved through a revision of the National Social Protection Policy that will soon be adopted and with the National Food Security and Nutrition Policy that is under development.

Set up of multisectoral coordination platforms for nutrition

To ensure the coordination of the National Nutrition Policy and to promote the involvement of the many sectors that can contribute to nutrition, two main bodies have been created in 2014: (i) the National Nutrition Council involving 17 ministerial departments, the high council of local authorities, the private sector and civil society; and (ii) an Inter-sectoral Technical Committee (CTIN).

A major challenge however, is the lack of dedicated resources to ensure effective coordination. Consequently a Nutrition Coordination Cell imbedded in the Ministry of Health and Hygiene has been created (2015) and is in the process of becoming functional.

A fair return to investment

The Multisectoral Action on Nutrition (PAMN) that operationalises the PNN for the period 2014-2018 was costed in 2014, identifying an annual average budget requirement of US$121 million. A parallel World Bank study published the same year highlighted that the countryscale up of nutrition specific activities alone would represent an investment of US$85 million annually. The study estimated that such an investment would save about 15,000 lives, 1.2 million DALY, prevent 60,000 stunting cases and add US$42 million to the national GDP every year.

Progress on nutrition-specific actions that need to be reinforced by a multisectoral approach and more sustainable funding

In the last 5 years, considerable progress has been achieved through nutrition-specific activities integrated within health programmes: 79% of expected caseload of children with severe acute malnutrition have received treatment; 93% of children from 6 to 59 months have received Vitamin A supplementation; 96.7% of households have consumed iodised salt. However, Mali remains financially dependent on external aid from technical and financial partners, notably the EU, and in the long run needs to find more sustainable means. Furthermore, much needs to be done to improve feeding practices and childcare (notably for the treatment and prevention of diarrhea and malaria) and to promote a better integration of nutrition in other sectors (e.g. agriculture, social protection, water and sanitation, education, etc.).

AGIR: A new opportunity to reinforce the multi-sectoral approach and prioritise resources for the most vulnerable

Committed to the “Zero Hunger” target within the next 20 years, Mali was one of the first countries within the region to engage in the Global Alliance for Resilience (AGIR), which represents a new opportunity to develop a multi-sectoral approach to nutrition-based resilience building. Mali identified its National Resilience Priorities (NRP) in 2015 with the aim to structurally and sustainably reduce food and nutrition vulnerability by 2035.

Nutrition is both a pillar and an objective of NRPs: the four pillars of resilience should together contribute to reduce malnutrition. This framework facilitates synergies between policies and programmes of different sectors that contribute to reduce food and nutrition insecurity. Mali now urgently needs to mobilise the required resources to scale up actions on the ground and to strengthen the coordination of different actors around the priorities set within the NRP.

Prioritise resources in the most vulnerable zones

An exercise was carried out in 2014 in the framework of AGIR to rank communes by their degree of vulnerability. It led to a mapping of findings for each of the pillars of resilience. A map of multidimensional vulnerability (refer to page 3) was then compiled combining vulnerability to various shocks and aggravating factors that should be used to prioritise allocation of resources in the most vulnerable areas of the country.

24 General objective of the National Nutrition Policy
25 Commitment of the National Nutrition Policy. It complements the global stunting reduction target of WHA described page 2
26 CREDD: Cadre stratégique pour la Relance Economique et le Développement Durable du Mali.
27 PNN: Politique Nationale de Nutrition

DALE: Disability-adjusted Life-expectancy is a measure of healthy life expectancy developed by the World Health Organization. Years of expected life are weighted according to severity and subtracted from the expected overall life expectancy to give the equivalent years of healthy life. DALE was developed to facilitate international comparisons of health and health outcomes.
The EU in Mali: A holistic approach at all levels to prevent undernutrition and support resilience building of the most vulnerable

The EU in Mali has committed to a long-term approach to nutrition-sensitive food security which is now reinforced with the resilience agenda. Since 2007, the EU committed about €175 million to the food security and nutrition sector in Mali including small-scale agriculture and food and nutrition security projects. Over the same period, the humanitarian service of the EU has allocated €96 million in response to food and nutrition crises.

This response has ensured the coverage of immediate needs through emergency food assistance, mainly in the North, and nutrition therapeutic feeding programmes countrywide. In parallel, €111 million have been devoted to support the competitiveness of the agricultural sector and an additional €30 million to nutrition-sensitive water, hygiene and sanitation.

Nutrition in food security and rural development programmes

The EU in Mali has been working for many years in the field of food and nutrition security through European Development Funds (EDF), thematic lines and humanitarian funds.

Interventions also ensured that women played a critical role in communities’ activities and decisions, and provided them and their children access to child health care, micronutrients supplementation and a diversified diet. These approaches have resulted in models of intervention that later fed in to the national resilience agenda.

Under the 11th EDF (2015-2020), the EU reiterates its full support to ‘Rural development, food and nutrition security’ which now represents a focal sector of EU/Mali cooperation. The EU aims to support a strengthened agriculture sector with the goal of improving food and nutrition security through institutional support to the CSA and concerned ministries and the implementation of projects focused on building resilient communities, households and individuals. Actions aimed at protecting the environment, improving the management of natural resources and adaptation to climate change strengthen this approach.

In parallel, the EU pursues political dialogue and supports the government in its reform of the national food crises management system and the adoption and implementation of its sectoral policies addressing root causes of food and nutrition security.

A joint humanitarian and development framework to build long-term resilience

The resilience approach enabled a better articulation between humanitarian and development programmes based on a common situation analysis and complementary actions through multifaceted interventions and emergency or productive safety net schemes according to the contexts. A common implementation framework for activities aimed at building resilience toward food and nutrition insecurity was elaborated and led to the launch of a joint programme in the Northern regions of Mali.

The approach is strengthened by the creation of the EU Trust Fund (EUTF) for West Africa in 2015, in which the resilience component will enable to develop new programmes in Mali.

Photo by: EU Delegation Mali - Abdoulaye Kabaogo.
In line with the Commission’s Action Plan for Nutrition, the EU focuses on 3 strategic priorities:

**Strategic Priority 1: Mobilisation, political commitment and governance**

The EU mobilises actors around nutrition through its focal sectors (policy and economic governance; rural development and food security; and infrastructure and education). In the framework of a partnership with UNICEF, the EU has provided substantial institutional support in the field of nutrition. The partnership also supported the piloting of multisectoral coordination platforms for nutrition at local level and capacity building in Mopti and Sikasso regions.

The EU institutional support has furthermore contributed to improved food and nutrition security governance in Mali, notably by supporting the DNSA\(^{31}\) reform, strengthening capacities of structures of the CSA\(^{32}\), working on targeting and supporting the elaboration of policies (PNN et son plan d’action, PolSAN\(^{33}\)).

**Strategic Priority 2: Scaling up of actions at national level**

Actions to improve nutrition and build resilience in areas affected by food and nutrition crises are intensified at sub-national level and concern several sectors:

- **Resilience building in northern regions**: Several projects are implemented to strengthen the resilience of communities and local governance, in line with National Resilience priorities.

**Multifaceted approach for Resilience building in the North**

Through the LRRD\(^{34}\) approach between its humanitarian and development services, the EU is allocating nearly €35 million (EUTF and EDF/PRORESA) for the period 2016-2020 to fund innovative nutrition-sensitive resilience building interventions in the Northern Regions of Mali.

Funding will be allocated to a consortia of NGOs selected for their technical knowledge, their capacity to work in fragile and volatile environments and who operate in strong partnership with local authorities and communities.

The interventions will be context specific, will combine the four pillars of AGIR and will focus on the most vulnerable households. Activities will contribute and complement national programmes. A common logical framework and a robust monitoring and evaluation framework will be set up in partnership with a research institute to measure the effects on nutrition and resilience building in this fragile context.

- **Rural Development**: The EU supports nutrition-sensitive agricultural programmes such as IRRIGAR (2014-2019) (€27.7 million) implemented by GIZ/KFW\(^{35}\), whose objectives are aligned with the National Small Scale Irrigation Programme.

The EU also considers enhancing the nutrition-sensitivity of value-chains such as the fish value chain.


The action targets: i) the mitigation of potential negative impacts on nutrition of small scale irrigation (such as water-borne diseases, and ensuring a balance between woman workload and child care); ii) the enhancement of nutrition gains through increased income, improved diets and a gender-sensitive approach; and iii) monitoring of results using DDS\(^{36}\) and anthropometric indicators.

- **Water, hygiene and sanitation**: The EU promotes at government-level nutrition-sensitive water and sanitation such as through the PACTEA 2\(^{37}\) (2013-2017) (€30 million), a programme jointly funded by the EU and the Malian State to support local and regional authorities.

- **Health and treatment of acute malnutrition**: Since 2012, the EU funds have enabled a significant scaling up of nutrition therapeutic services countrywide through 1,300 health centres. By strengthening health services, new opportunities to prevent undernutrition through health sensitive interventions have emerged.

**Prevention and integrated management of acute malnutrition in the health system**

In 2015, more than 130,000 children affected by SAM\(^{38}\) (i.e. 72% of the estimated number of children affected) were treated through NGOs and the United Nations thanks to humanitarian EU funding. These services are partly integrated within the national health system, which provides most of the required staff (although the supplies and financial means are still very much reliant on external aid).

Synergies of action between health and nutrition-specific activities are encouraged to foster prevention and minimise costs: for example combining vaccination or malaria chemoprophylaxis campaigns with screening/referrals of acute malnutrition.

**Photo by: EU Delegation Mali – Céline Lhoste.**

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51 DNSA: Dispositif National de Sécurité Alimentaire.
52 CSA: Commissariat à la Sécurité Alimentaire.
53 PolSAN: Politique de Sécurité Alimentaire et Nutritionnelle (en cours de développement).
54 LRRD: Linking Relief Recovery and Development.
55 The German Agency for International cooperation (GIZ) and the public Bank for development (KFW) (German financial cooperation).
56 DDS: Dietary Diversity Score.
57 PACTEA: Programme d’Appui aux Collectivités Territoriales pour l’Eau Potable et l’Assainissement (Programme Support to local authorities for drinking water and sanitation).
58 SAM: Severe Acute Malnutrition.
Social protection and access to basic services: The EU supports the development of safety net approaches across several regions through several cash transfer modalities (via LRRD actions in the North resilience or HILO\textsuperscript{39}), the EU and its partners collaborate with the government’s Jigisimejiri programme and the World Bank on the identification of the most vulnerable households and contributes to the establishment and maintenance of a unified social register (national database). Ultimately the aim is that the poorest and most vulnerable Malians should benefit from well-managed national social protection programmes. Specifically in the North, EU humanitarian funds support access to free health services (emergency policy related to the crisis) and education.

Prevention and management of Food and Nutrition Crisis: In parallel to the above-mentioned institutional reform, every year, the EU substantially contributes to the national food security response plan through different aid modalities. It also supports the functioning of the Early Warning System at local and central levels. The EU also supports climate change adaptation actions.

Strategic Priority 3: Strengthening the expertise and the knowledge-base

The EU provides support to strengthen national expertise and capacity in the food security and nutrition sector. The ANSP\textsuperscript{40} programme provided nutrition training (including the creation of a Master’s course on nutrition in public health) and supported the revision of curricula of health and agricultural students integrating nutrition into the curricula. The EU contributes to the funding of SMART nutritional surveys\textsuperscript{41} and funds nutrition-sensitive projects in Mali that pay particular attention to generating evidence of their impact (see box).

The EU and the World Bank are carrying out a study of targeting in Gao in partnership with two research centres to improve knowledge on targeting and contribute to the development of a Unified Social Register. In the past, several studies (causal analysis, HEA\textsuperscript{42}, Cost of Diet, anthropometric studies) were funded to better understand livelihoods, the economic determinants of malnutrition and to improve the national early warning system.

Using and collecting evidence of improved nutrition through the food and nutrition security projects

Nutrition Causal Analyses were funded under the PASA projects in order to better address the determinants of undernutrition (in particular food, income and behaviour-related). The Dietary Diversity Scores were used to measure the achievements of these food security projects. Their M&E system was designed to determine the actions with the greatest potential for improving the quality of diet and the nutrition status of the target groups according to the contexts.

The EU supported with technical expertise the governmental technical services and NGOs in the data collection and analysis. This support will be renewed in PRORESA/EUTF. A research will also be carried out to improve knowledges on the effects of different resilience building activities on nutrition.

\textsuperscript{39} HILO: High Intensity Labour Force.
\textsuperscript{41} SMART: Standardized Monitoring and Assessment of Relief and Transition – anthropometric and mortality surveys.
\textsuperscript{42} HEA: Household Economy Approach.