



MALI

« HEALTH GARDENS »,
A NUTRITION CENTRED
APPROACH

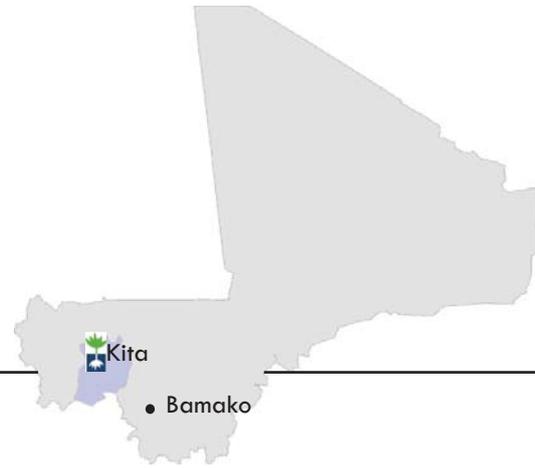


In response to high acute malnutrition rates, ACF has operated in the district of Kita since 2007 and has put in place an innovative multisectoral strategy to fight malnutrition by combining food security, education, health and water and sanitation programmes. Within these programmes, the “Health Gardens approach” developed by ACF provided mothers with the necessary basic knowledge to improve the nutritional situation of their families through nutritional education and the improvement of food consumption diversity.





• Mali



Kita

• Bamako

Humanitarian context

Background

The district of Kita, known as the «breadbasket» of Kayes region, has an important proportion of vulnerable households (60% according to 2006 Vulnerability Analysis and Mapping) and high malnutrition rates (GAM¹: 10.3%; SAM² 1.4% according to 2007 ACF nutritional survey). An initial assessment indicated that in the South of Kita district, populations have access to staple foods, but little access to basic drinking water facilities, there is a low diversification of local production, and children and adults have very low food diversification in their diets.

practices, limited exclusive breastfeeding for children under 6 months and inappropriate complementary feeding for those above 6 months are the primary causes of malnutrition for children. Inadequate sanitation and hygiene practices were also identified as causes for children's high rate of diarrhoea.

Assessment

A KAP (Knowledge, Attitude and Practice) and Nutrition survey conducted in 2007 revealed that acute malnutrition in Kita is due to poor dietary diversification, bad sanitation and hygiene conditions and unsuitable breastfeeding and weaning practices.

A “Household Economy Analysis” (HEA) carried out by ACF in 2008 showed that dietary diversity was impeded by the lack of available fresh foods at the local level and to difficulty in accessing nutritious foods for low income households (0.1 US dollar per capita a day for the poorest, i.e 57% of the households in the area). As for breastfeeding and weaning

¹Global Acute Malnutrition rate
²Severe Acute Malnutrition rate



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Programme overview and rationale

The Health Garden approach which aims at improving availability and access to high quality food is based on:

1. The development of vegetable gardens (production of fruits, vegetables, cereals, peanuts) both for family consumption and for retailing on markets;
2. The promotion of essential nutrition practices through education and sensitization sessions (breastfeeding, hygiene, food and nutrition sensitization);
3. Culinary demonstrations of balanced recipes based on the availability of both the garden's products and other local food crops ordinarily used.

The results suggest that the Health Gardens were an effective method in fighting against micronutrient deficiencies as local communities produced and consumed diversified food products, adapted and chosen by them. This approach also recognized the social significance of food and highlighted the multiple benefits associated with dietary diversity. It helped people to examine their own diet as a whole according to their preferences, their lifestyle, their needs and their activities. The Health Gardens also aimed at contributing to physiological development (mental and social), increasing learning ability and reducing nutritional problems within the family.

Implementation

Beneficiary selection and targeting

For 3 years, the Health Gardens programme supported a total of 1,264 households.

After the first year of implementation, a HEA (Household Economy Analysis) survey conducted in 2008 revealed that although the most vulnerable households represented the majority of the targeted population (57%), they were hardly reached. The direct beneficiaries of the Health Gardens were mainly 42% of wealthy, 40% of average and only 18% of poor households.

As a consequence, ACF reoriented its programme in order to improve its impact towards the most vulnerable families.

Integrated activities implemented within the Health Garden

According to the Health Gardens Approach, ACF implemented activities that combined support systems and trainings in market-gardening, awareness on child food and care and hygiene, and demonstrations of balanced culinary recipes with the gardens' products.

• Nutrition education

To promote essential nutrition practices and knowledge, ACF organized four types of activities. These included: awareness and training sessions, culinary demonstrations based on the garden's products and local



Programme impact

food preferences, the development of community-based nutritional care (Hearth model and community relays etc.) and hygiene & sanitation sensitizations.

• Support to production

ACF also encouraged food diversification by supporting crop production with technical trainings and demonstrations: training sessions on crops¹ (cabbage, onion, tomato, etc.), facilitation of the access to inputs (warrantage³, community-based inputs stores etc.) and variety and technological demonstrations (development of drip irrigation, promotion and use of compost as fertilizer, use of pedal-pumps, expanding micro-dose techniques etc).

• Harvest Management

The programme also included post-production activities (preservation, processing, storage) in order to enhance food availability in the lean season. ACF also initiated the development of food banks in the area to improve storage capacity of the community.

Another aspect that was included in the programme was the encouragement of a constant dialogue between ACF and its partners through the creation of participatory assessment workshops. It was the opportunity for ACF and its partners to draw on lessons learnt and recommendations for future programmes and to bring to light sensitive issues such as land access.

Targeting method

A community and participative approach was used to target beneficiaries. Women were selected as the main beneficiaries because of their role within the households and particularly because of their role in the feeding and care of their children. Additionally, market gardening is a task traditionally done by women so ACF considered the Health Gardens a good means to help empower women within the community.

Selecting the direct beneficiaries who participated in the Health Gardens was made based on the criterion of groups of women who could work together in market-gardening. Groups of beneficiary women then were formed according to personal affinities.

Women who did not directly participate in productive activities of the Gardens as such were invited to take part in activities of nutrition sensitization and were then considered indirect beneficiaries. Men were also invited to participate in the project and some of which helped women in their gardens (digging wells etc.).

A control group was also selected from villages located 50 km away from the ACF intervention area. The targeting method was the same for direct and indirect beneficiaries.

Baselines and monitoring method

Throughout the project, ACF conducted several surveys and studies: a KAP survey in 2007, which gathered data on the causes of malnutrition in the area; a socio-economic survey in 2008, which determined initial levels of food diversity scores of households and children under 5 years; and a HEA survey, which categorized households in the intervention area based on socio-economic status. These studies built the baselines for the analysis of the Health Gardens impact. Conclusions are included in the ACF final impact assessment report .

To evaluate the impact of the programme, ACF used three beneficiary samplings, one for direct beneficiaries, another one for indirect beneficiaries and the last one as a witness sample of households from villages where ACF did not implement its programme. The villages surveyed were chosen randomly (10 out of 36) while the beneficiaries were selected according to the “little papers” technique.⁴

³Warrantage is a credit technique, adapted to the needs of finance and capacity of guarantees of a certain socio-professional category (agricultural producers etc.), guaranteed by a stock of agricultural products “warrantables” (products that can be stored and that are not too bulky and that are likely to increase in value) stored and pledged in an appropriate and secure place.

⁴This technique consists of: 1. Numbering pieces of paper from 1 to 100, 2. Distributing those papers out to 100 persons taking part in the village’s general assembly (1 person for each household), 3. Numbering again another 100 pieces of paper, 4. Putting them in a vase, 5. Then randomly drawing the pieces and announcing to the assembly the drawn number. The corresponding person shall be part of the persons to be surveyed.

For three years, the Health Gardens programme has supported 1,405 women organized in 36 associations, covering 36 villages and settlements (a garden for each association and per village or settlement).

The programme assessment carried out in June 2010 recorded a very positive impact in food practices of households, with a serious improvement of food diversity for direct and indirect beneficiaries in the area of the project's intervention. Food accessibility and diversification changed from an average consumption of six groups of food in 2008 to an average consumption of seven groups in 2010 (average HDDS = 6.59).

The Health Gardens seemed to have contributed to the significant improvement of children's nutritional status in Kita, with a 40% increase of the proportion of children under 5 years who now have access to vitamin A-rich food.

ACF nutritional studies tended to confirm this positive trend: the Global Acute Malnutrition (GAM) rate decreased from 10.3% before the programme to 7.1% after the programme. Although these data cannot be attributed solely to the programme, the very encouraging decrease of the malnutrition rate in the intervention area suggest that Health Gardens had contributed in part to the reduction of acute malnutrition in the area of Kita.

In terms of nutrition practices, the programme contributed to a better knowledge of the causes of malnutrition:

- In the control area, 32.3% of women had no knowledge of the causes of malnutrition. To be noted, only 12% of them were direct beneficiaries of the Gardens. The improvement of nutrition practices, however, is still weak.

A clear increase of the average duration of market gardening productions:

- This changed from an average of 5 months before the project to 9 months currently. This is due to better access to water, more adequate irrigation structures and measurements securing gardening sites, which leads to longer availability of vegetables in beneficiary households.

The increase of the production of market gardening crops:

- Beneficiaries found that their production increased by 165% on average between the period preceding the project and the present one.

A substantial improvement on economic and social empowerment of women:

- Each woman who directly benefited from the programme earned an average of 7200 FCFA for the first Health Gardens crop season of 2010 while their income before the programme was of 2850 FCFA on average (+153%). In addition, according to the 2010 survey the

income of participants was 2.4 times higher on average than the income of women who did not participate in the programme.

- Money earned by the women significantly added to their social inclusion in the household. Additionally, 15% of income generated by the Health Gardens was used in part for health care which likely helped improve the health situation of children and mothers.



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Lessons learned and recommendations

- The implementation strategy of the Health Gardens aiming to work specifically with women was relevant because of their role within the households and in particular due to their role in the feeding and care for their children. The strategy used for this programme has the potential to be replicated. To be noted however is the workload of the women, which must be taken into account. The quantity of work sometimes prevents the women from being able to care for their children, playing a part in the causes of malnutrition. ACF recommends therefore the implementation of community-based “nurseries” in order to find other care takers for the children (ie grandmothers).

- When implementing the Health Gardens within women’s groups, there was no specific targeting of the women belonging to vulnerable households in the community. This led to the inclusion of less vulnerable households, which are households that can already afford access to a diversified diet and food quality. This needs to be better managed in the future.

- This type of programme should also consider including mothers of malnourished children—those registered in nutrition rehabilitation centres— into the Health Gardens Programme. Alternatively, the programme could create a

Health Garden within the nutrition rehabilitation centres.

- The dissemination of messages, whether in nutrition education or in farming techniques and technology, must be done more gradually, taking into account the beneficiaries’ level of knowledge and understanding.

- Sun-drying of vegetable products does not preserve the quality and nutritional value of products and does not ensure sufficient food hygiene. Sensitization on hygiene should better cover hygiene aspects in food preparation, drying (using shell or solar dryers) as well as the processing and post-processing of products.

- Setting up a rigorous monitoring system is required as part of the Health Gardens programme to better monitor outputs, outcomes and impacts. The system used should be that of the SMART indicators.

- Participatory Hygiene and Sanitation Transformation (PHAST) sensitizations should be extended to the entire area given the importance of safe water and hygiene practices in nutrition causalities.

- The implementation of Health Gardens requires a sustained presence of technical support personnel and nutrition education.

Contact details and further reading

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For more detailed information, please refer to the ACF impact and capitalisation report of the programme, “Health Gardens, a nutrition-centred approach” (July 2010).



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This document is part of a set of case studies on ACF Food Security and Livelihoods interventions which aim to reduce and/or prevent undernutrition. It has been developed by the ACF “Aligning Food Security and Livelihoods with Nutrition” Working Group, with the support of Elodie Ho in collaboration with ACF project managers. The layout was done by Verena Pandini. The aim of the “Aligning Food Security and Livelihoods with Nutrition” Working Group is to promote and scale up nutrition sensitive Food Security and Livelihoods interventions, within ACF as well as partner organizations. The Working Group promotes these interventions by gathering lessons, building evidence, developing tools and guidance and building capacity.

For more information on the “Aligning” approach, please refer to the ACF manual:
Maximising the nutritional impact of Food Security and Livelihoods interventions. A manual for field workers.
<http://www.actioncontrelafaim.org/fr/content/maximising>

