



welt  
hunger  
hilfe

For a world without hunger



**LANN**   
by Welthungerhilfe

**LINKING AGRICULTURE AND  
NATURAL RESOURCE MANAGEMENT  
TOWARDS NUTRITION SECURITY**



## An evolving approach

In 2009, Welthungerhilfe in coalition with 7 other non-government organizations in Laos<sup>1</sup> developed a food-based nutrition training package called LANN for remote communities highly affected by malnutrition. LANN stands for “Linking Agriculture, Natural Resource Management and Nutrition”. LANN training was delivered in a series of community or small women’s group sessions and made use of instructional and communication methods through role plays, posters, and cooking demonstrations as many families, particularly, women, could not read or write. The LANN training package was a response to a lack of suitable food-based approaches and nutrition education materials in the region.

Since LANN’s inception, Welthungerhilfe has applied LANN training and its concept across various programs in South East Asia, South Asia and Africa<sup>2</sup> but with varying characteristics guided by slightly differing concepts. In June 2016 Welthungerhilfe LANN-experts from various countries came together to discuss and agree on a consistent and feasible LANN+ approach that builds on the lessons learnt so far and takes into consideration latest research findings especially with regard to the link between WASH (water, sanitation and hygiene) and nutrition. This revised and streamlined approach that now includes WASH is called LANN+ “Linking Agriculture, Natural Resource Management towards Nutrition Security”.

The multisectoral LANN+ approach is centered around family nutrition and has an explicit focus on integrating nutrition-sensitive sectoral elements that address underlying and basic causes of malnutrition in order to achieve nutrition security. The focus is on



the linkages between agriculture and nutrition,



the linkages between natural resources and nutrition,



the linkages between WASH and nutrition,



the linkages between income generation, markets and nutrition, and



the linkages between nutrition education and nutrition practices.

## The LANN+ objectives

With the specific aim of promoting behaviors to improve nutrition security, the LANN+ approach seeks to empower rural households to plan for and sustainably practice nutrition-sensitive strategies particularly with regard to accessing adequate and healthy food, diet diversity, a sanitary environment as well as relevant care practices with a specific focus on vulnerable family members. In short, the approach seeks to achieve nutrition security through behavior change and empowerment.



<sup>1</sup> AgriSud Int., CARE, CCL, CRWRC, Helvetas, WCS World Conservation Society.

<sup>2</sup> Laos, India, Cambodia, Myanmar, Sri Lanka, Nepal, Sierra Leone.

## The families we want to reach

Welthungerhilfe uses LANN+ as a nutrition-sensitive response for rural communities highly affected by malnutrition, where the people are typically small-holder farmers and mostly draw their food and livelihoods from the natural environment. Many of the targeted communities are situated in ecologically and climatically vulnerable regions. For these communities, diets, food systems and the use of natural resources are inextricably linked.

LANN was originally developed for use in remote rural communities that have limited access to quality health care services and markets. The approach does not have to be used exclusively for remote communities, but LANN+ by itself may be less relevant or effective for communities who mostly purchase their food from markets and rely less on natural resources for livelihood and nutrition security.

Like other nutrition-sensitive approaches, LANN+ and its intended impact explicitly aims at the nutritionally most vulnerable groups within the target communities, such as women and children < 5 years and, but also socially marginalized groups.

### Why multisectoral nutrition-sensitive approaches matter



India, nutrition education

According to WHO malnutrition is estimated to contribute to more than one third of all child deaths, it negatively affects all aspects of an individual's health and development and impedes economic and social progress at the community and national levels.

Malnutrition is a multi-faceted problem, with causes across a number of sectors. Household food security, adequate care and feeding practices, as well as a healthy environment and access to health services are all important factors for optimal growth. Each one is necessary but not sufficient alone.

Proven, simple interventions exist to impact positively on nutrition security, such as exclusive breastfeeding, appropriate complementary feeding practices, micronutrient supplementation where needed, handwashing with soap, and use of hygienic latrines or toilets. However, given the complexity of factors that cause malnutrition no single intervention alone will achieve effective or lasting results. Effectively and sustainably improving nutrition outcomes requires a coordinated, multisectoral approach and strong community engagement.

Nutrition sensitivity is one of the emerging challenges in development cooperation and a priority in Welthungerhilfe for some time now. By linking agriculture, natural resource management and WASH towards nutrition security, LANN+ is a typical nutrition-sensitive approach.



## The LANN+ Linkages

### Nutrition, natural resources and wild foods

Especially for the families targeted by LANN+ in rural areas are an essential enrichment of the villagers' diet promoted by limited to wild foods only. It includes all natural products or use food (e.g. firewood for cooking). Effective natural own nutritious food can be produced, processed and income can be obtained to purchase nutritious food. non-timber forest products, LANN+ promotes and the conservation of its biodiversity strengthening their resilience with regard to extreme weather events.

### Nutrition and agriculture – a perfect match?

Agriculture and nutrition share a common entry point: food. Food is a key output of agricultural activities, and, in turn, is a key input into good nutrition. Without agriculture there is little food or nutrition, but availability of food from agriculture doesn't ensure good nutrition. Common sense would dictate a reinforcing relationship between the two fields of agriculture and nutrition but, in fact, there is often a significant disconnect. Many agriculturalists unfortunately do not consider the main goal of agricultural development to be the improvement of human health, beyond providing sufficient calories, income and the growth of the local economy.

LANN+ moves the focus from individual crop performance to mixed cropping and increased system productivity, from market dictated production to individual farm planning based on local resources and therefore promotes the diversification of agricultural production and homestead gardening that leads to diversification of diets within the families.

### Nutrition education, the central pillar of LANN+

The aim of nutrition education is to increase family food and nutrient intake with a focus on diversity. Dietary promotion strategies within food security interventions need to build on a systematic problem and context analysis of the underlying local nutrition insecurity situation and its causes on all levels. Nutrition messages and learning materials have to be built on the identified gaps regarding food consumption and diet composition, feeding practices etc. A focus is put on different nutritional needs of toddlers, pregnant and lactating women. It aims to achieve an adequate diet and care especially of women during pregnancy and lactation, including overcoming impairing food taboos and reducing their workloads. Furthermore special attention is paid to the first 1000 days of a child's life, the most important window of opportunity to prevent physical and mental impairment.

Agriculture



Natural



Nutrition Education





natural resources are omnipresent and everywhere. Wild foods LANN+. But the sustainable use of natural resources is not that impact household capacity to produce, access/purchase resource management supports the environment in which prepared, and it sustains a rural livelihood from which Besides the sustainable use of wild food and other the protection of soil, forests, streams, grassland and furthermore supports communities in the hazards related to climate change and



### The links between nutrition and WASH

Water, sanitation and hygiene play a fundamental role in improving nutritional outcomes. The World Health Organisation estimates that 50% of malnutrition is associated with repeated diarrhoea or intestinal worm infections as a result of unsafe water, inadequate sanitation or insufficient hygiene [WHO, 2008].

Furthermore the lack of sufficient safe water close to home has many indirect effects on nutrition. The time wasted collecting water or suffering from water-related illnesses reduces the caring capacity of mothers and prevents children from getting an education, which has a significant impact on their health, wellbeing and economic situation. LANN+ complements general household WASH interventions by targeting WASH activities especially for toddlers, addresses caregiver hygiene behaviors and the safe treatment and storage of drinking water and promotes correct hand washing as well as the use of hygienic latrines.

### Nutrition, income generation, markets and "wise spending"

Logical pathways from incomes to nutrition security can be intuitively drawn. Supporting income generating activities (IGA) can increase households' cash resources and thus, their purchasing power and abilities to invest in food and non-food expenditures, strengthening livelihoods in a sustainable way.

LANN+ promotes IGAs that are connected to food systems with a clear focus on nutrition-sensitive value chains, like storage, preservation and processing of food – or IGAs that invest into care practices and the feeding of dependents. Other market linked aspects, for example credit and loans can facilitate access to healthcare services and other resources, which are unrelated to food directly but can contribute to nutrition security in many ways. The promotion of "wise spending" of money on healthy nutritious local foods instead of industrialized commercial products with low nutritional value is another important feature within LANN+ to promote healthy family nutrition.



## Conceptual challenges and key learnings so far

### ■ Addressing women's role in nutrition security

Women's role as caregivers and responsible persons to prepare meals for the family, but also their important contribution to food production and income generation is reflected in the LANN+ project design. Gender-disaggregated data collection and integration of interventions and activities that contribute to empower women in their societal role – including the necessary support by husbands and fathers – is therefore a key element for any LANN+ program.

### ■ Working in multidisciplinary teams

Chronic malnutrition, especially stunting, is a challenge that covers multiple sectors, specifically health, agriculture, and the environment. The LANN+ approach builds on the UNICEF conceptual framework on malnutrition to guide interventions from a multi-sectoral and multidimensional perspective. This implies already at planning stage to work in multi-stakeholder multi-disciplinary teams.

### ■ Applying the “nutrition lens”

LANN+ being a nutrition-sensitive approach requires the application of a systematic and strong “nutrition lens” in every step of program planning, intervention design, implementation and monitoring. Any LANN+ activity or message is aligned towards nutrition security.

### ■ Supporting nutrition-sensitive decision-making

Resources are finite and there are always competing interests for the use of resources. Daily decisions on what resources are used for may have short or long-term impact on the nutrition security of the families. Conflicting interests are addressed in all LANN+ learning modules: Should a breastfeeding mother's labour and time be diverted to the farm for a week during harvest period or should she remain close to her infant to be able to breastfeed exclusively? Should water be used to wash hands before every meal or should that water be used for drinking and cooking?

Burundi, vegetable gardening







Malawi, hygiene promotion

### ■ **Understanding of the local context through participatory methods**

Local stakeholder buy-in is fundamental to sustained behavior change. Practices relating to food production, food preferences, decision-making on childcare and feeding, or on how resources are used and perceptions of what contributes to well-being are deeply rooted in socio-cultural, political, economic, and natural landscape contexts. During the inception phase the LANN+ team analyses the local context in regard to behavioral intentions and barriers. Sociological methods such as KAP survey, barrier analysis, nutrition causal analysis, as well as participatory communication methods such as PLA (participatory learning and action) are crucial for reaching sustainable nutrition outcomes with livelihood or agricultural interventions.

### ■ **Working through local change agents**

Since nutrition behaviors are strongly rooted in the cultural identity of communities, LANN+ works through local change agents with a strong influence on nutrition (for example village elders, decision-making structures, grandmothers).

### ■ **Promoting an enabling environment for sustained behavior change**

In recognition of the fact that barriers to behavior change are not limited to knowledge and skills constraints, the LANN+ framework is not limited to a training approach per se. LANN+ is a holistic approach that definitely includes knowledge and skills development, but may encompass a range of different interventions and methods to promote and to sustain an enabling environment for sustained behavior change. Involving the families and communities in activities is crucial for reaching sustainable outcomes.

### ■ **Complementing other programs to achieve sustainable nutrition outcomes**

As an additional component LANN+ can help to enhance the scale of nutrition-specific interventions like the treatment of acute malnutrition. Further on LANN+ is suited to complement larger interventions to achieve nutrition outcomes, like agricultural programs, educational projects or access to health services and as such helps to create a stimulating environment in which young children can grow and develop their full potential.



## What LANN+ can offer for interested partners and donors

**LANN+ is a framework for planning and action** with rural communities and farming families to promote more diversity, balance and sustainability in diets, as well as supporting environmental health and appropriate care practices. The methods and content that make up the 5 core elements of LANN+ reflect what we know works to sustainably address malnutrition.

**Lann+ is an effective model for a minimum 3-year project** to empower rural communities to improve their nutritional status. With its main activity components in nutrition education, making use of uncultivated food, nutrition-sensitive agriculture, nutrition-sensitive WASH, and income generation LANN+ could be a stand-alone intervention. Alternatively, a LANN+ project can also be broadened to include related activity components such as the establishment of village development savings groups to promote income generating activities and markets, and more rights-focused interventions to address gender and other social inequities.

The approach is even flexible enough to complement or being linked to other conventional approaches to strengthen their impact on food and nutrition security.

## LANN+ Service and support

For interested stakeholders, partners and practitioners, we offer a package of resources providing guidance on LANN+ programming. The package includes a field practitioner guide, and a toolbox containing good practice examples, a monitoring and evaluation framework, a LANN+ short video and many more. Our LANN+ communication and information package is freely available. Please contact: [sectorsupport@welthungerhilfe.de](mailto:sectorsupport@welthungerhilfe.de)

India, collection of wild foods



**Welthungerhilfe, IBAN DE15 3705 0198 0000 0011 15, BIC COLSDE33**

Deutsche Welthungerhilfe e. V., Friedrich-Ebert-Straße 1, 53173 Bonn, Germany, Tel. +49 (0)228 2288-0, Fax +49 (0)228 2288-333, [www.welthungerhilfe.de](http://www.welthungerhilfe.de)