

Key messages



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Wag Himra Zone, Amhara Region

Ethiopia

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INTRODUCTION

Located in Northern Amhara, Wag Himra zone was the epicentre of the 1974 and 1985 famines and remains reliant on humanitarian assistance. A drought-prone area with only one rainy season per year, Wag Himra zone is sub-divided into six districts (woredas) with an estimated population of 543,020 people.¹ The majority of the population lives in rural villages where their main livelihood is mixed farming (two livelihood zones: mixed cereal and lowland sorghum and goat).

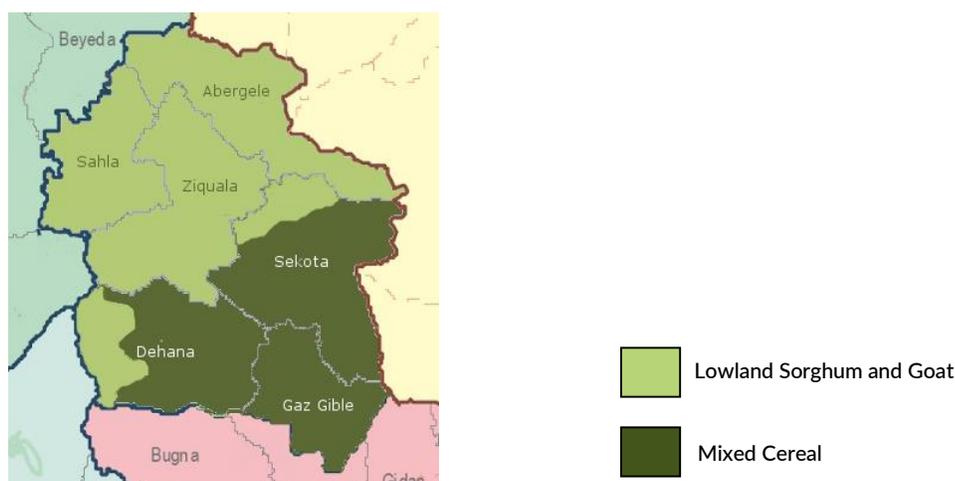


Figure 1: Map of Wag Himra Zone illustrating main livelihood zones

Despite numerous governmental and non-governmental interventions, the prevalence of undernutrition (both wasting and stunting) in the zone remains rather high². Understanding that various forms of undernutrition have serious implications for social development and economic growth in Ethiopia, the government issued the *Sekota declaration* to end child malnutrition by 2030. This bold commitment, aligned with Sustainable Development Goals, aspires to bring together all sectors of the Government of Ethiopia with the aim to end hunger and to achieve food security, paying particular attention to the importance of good nutrition during pregnancy and the first years of child's life.

A part of this initiative, the EU Resilience building programme in Ethiopia (RESET) strives to build the resilience and expand the coping capacities of the most vulnerable populations in selected areas of the country, including Wag Himra zone. During the first phase of the project, however, consortium partners recognised the unavailability of plausible analyses on the causes of undernutrition in Wag Himra zone and deemed it a key constraint for a tailored response addressing principal problems ravaging concerned communities.

For this reason, Action Against Hunger sought to undertake the Link NCA study in two operational woredas of RESET II consortium project in order to deepen the understanding on causes of undernutrition in Sekota and Dehana woredas and to help consortium partners to develop a comprehensive operational plan aiming to improve the nutritional security in Wag Himra zone.

¹ Wag Himra Zone Office, 2017.

² The prevalence of stunting is estimated at around 40% while the prevalence of wasting oscillates around 9%, as per latest Demographic and Health Survey, 2016.

KEY FINDINGS

A. HEALTH

Health services in Sekota and Dehana woredas are provided through a three-pier health care delivery system. While the health facilities' coverage in both Dehana and Sekota woredas is close to meeting respective national standards³, the community identified a number of barriers to access, utilisation and quality of health services, having impact on their health-seeking behaviour. This is also influenced by their understanding of symptoms and causes of illnesses, which they or their offspring may be suffering from. In this respect, it is important to note that a recognition of recurrent childhood illnesses among community members was problematic - further away from a health facility a village was located, more difficult it was for them to recognize childhood illnesses, describe their causes and therapeutic itineraries.

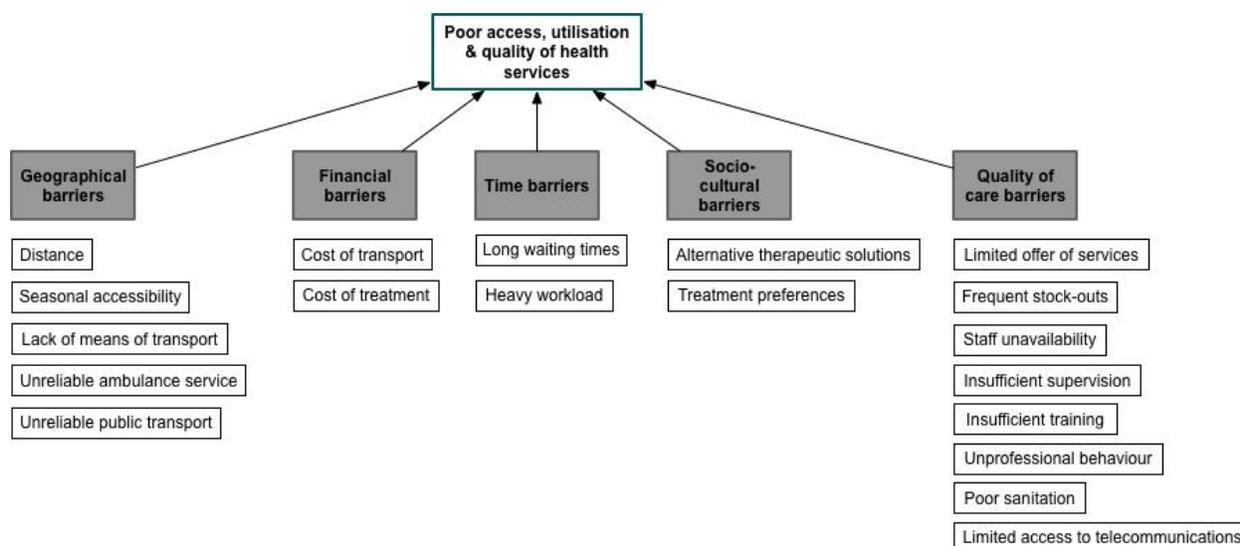


Figure 2: Summary of key barriers to healthcare in Sekota and Dehana woredas

A situation around birth-spacing and family planning is reported as much more relaxed than in the past and families use it quite extensively. Thanks to sensitisation sessions by health workers, the previously forbidden family planning is now accepted and/or tolerated by religious authorities. However, women report a dislike of a three-year plan (implant), because they experience unpleasant physical reactions. For this reason, some women reported that they switched to a three-month plan (injection) yet its huge inconvenience consists in its frequent renewal.

During pregnancy, women consider consultations at a health facility important but it is rather rare that they are capable to comply with 4 or more antenatal care visits. The reasons for non-attendance align with barriers to access, utilisation and quality of health services detailed above.

B. NUTRITION AND CARE PRACTICES

An analysis of Household Dietary Diversity Score (HDDS) revealed that communities in Sekota and Dehana woreda consume on average only three food groups. The score is further reduced to

³ Standards are either met or will be met shortly with a construction of new health posts.

1.9 food groups for children between 6-23 months. Meat and animal products are rarely eaten and often sold at the market to generate more household income.

A prevailing majority of people in Sekota (98.8%) and Dehana (99.7%) woredas practicing Ethiopian Orthodox Christianity implies a devout following of dietary restrictions during the so-called “fasting” days or seasons. For a general population, 180 fasting days extending over a calendar year are mandatory for all adults and children over 7 or 10 years of age. This also applies to pregnant and lactating women with the exception of women giving birth up to the 40th (or 80th) day after childbirth when a baptism takes place.

As a result, all women attested that they had observed a lower breastmilk production during a fasting season, when their food intake is restricted. To boost its secretion, they resort to a more varied diet or *korafa*³³, a local alcohol with a low alcohol content, which is known to stimulate the breastmilk production. If that is not possible or does not help, a woman may be forced to resort to alternative solutions, such as administering tea to her child, even if under 6 months of age.

Complementary feeding is often initiated between 9 – 12 months of age. At this point mothers normally feed their babies food items prepared for the rest of the family at the frequency that resembles that of adults, i.e. two to three times a day, depending on the availability of food in the household. In addition, food hygiene has been observed as a key concern.

C. FOOD SECURITY AND LIVELIHOODS

Farming is the main source of income and food for most households in Sekota and Dehana woredas. It has a priority over animal rearing as that is mostly used to complement household income and/or help household to cope with eventual shocks. Most common crops include barley, wheat, sorghum and beans.

Among many issues that affect household capacity to generate enough income and food from this activity is the availability of land. While some community members (primarily of younger age) claim not to have access to land, other complain of its small size (0.25 -0.75 ha), which is insufficient to feed a household over the course of a year. The physical access to land is also described as rather difficult due to long walking distances or locations in topographically hardly accessible terrain; to that adds the erratic rainfall, unavailability of water points, erosion and low soil fertility, which has become one of their prime concerns in the past years. While the use of fertilizers (organic or chemical) to improve the land quality is known, their use is restricted, depending on men’s heavy workload or household financial resources.

Considering household’s main source of income, the majority of financial resources tend to flow in household reserve after harvest in the months of October through December. The most expenditure occurs in January, which is a time of celebrations/weddings, and in June, when households need financial resources to procure tools and refreshments for labourers at their fields during the onset of a farming season. At the same time, communities declare facing a shortage of money during the same period, i.e. from April to September, which influences their capacities to invest in a new farming season, if they are not well prepared and/or dealt with a shock within a household in the previous months.

D. WATER, SANITATION AND HYGIENE

Access to water, both in sufficient quality and quantity, was identified as the fundamental community concern. While the distance itself seems somewhat reasonable (30-60 minutes) in

comparison to other contexts, it is waiting times that have a considerable impact on women's workload and may discourage repetitive journeys to a water point to satisfy household's needs.

Because most water points are from surface and subsurface sources like springs, yield proportion decreases during a dry season. During that time, communities are limited to only one jerry can per household per day (in contrast with 2-3 jerry cans fetched during other months of the year). When water is scarce, it is reserved for drinking, cooking and handwashing. Bathing and clothes washing is put on hold and generally takes place only once a month or once in two months.

Water from a river stream is shared with animals and it is not properly maintained. In general, it is considered unsafe to drink but people from concerned communities admitted drinking it without proper treatment. On the other hand, water from a water point such as a hand pump well is considered safe as woreda authorities oversee its chlorination.

The presence of latrines in visited communities is scarce. Among different household priorities, such as building a bigger house, preparing a compost for fields or investing money in an income-generating activity, building a latrine does not hold too much importance and is often shifted down the priority line. The construction of a latrine loses its importance altogether when people live in a rented house.

Equally alarming is the presence of animals and their faeces in the compound, creating an unhygienic play area for children and presenting a high risk of hand-to mouth contamination.

E. GENDER

Daily workload of both men and women in Sekota and Dehana woredas is reported as high. Women's workload is especially high during a farming season when they have to tend to their household and field duties simultaneously. When a woman is pregnant, her daily workload has a tendency to decrease but she still needs to tend to certain tasks, such as fetching water, nevertheless.

Despite the fact that early marriage has become illegal in Ethiopia, certain communities continue to adhere to traditional marriage practices, marrying their daughters as early as 15 years of age. Considering their young age at marriage coupled with their inability to take part in marriage arrangements, women wedded early suffer from a complete lack of decision-making power. For those wedded later on and/or having a say in marriage arrangements, a situation has changed considerably as they can take many decisions themselves and/or take them conjointly with their husbands. However, in situations where a husband and wife disagree, it is customary for a husband to endorse his opinion.

F. UNDERNUTRITION

ANTHROPOMETRIC DATA COLLECTION RESULTS

The anthropometric data collection findings revealed a prevalence of global acute malnutrition (GAM) combined on the basis of weight-for-height z-score at 8.7% for both Sekota and Dehana woredas. The prevalence of severe acute malnutrition (SAM), according to the same criterion, was estimated at 1.7% for both woredas.

	Criteria	Sekota + Dehana woredas (comb.) Prevalence (%)	Sekota woreda Prevalence (%)	Dehana woreda Prevalence (%)
Global acute malnutrition (GAM)	WHZ < -2.0 and/ or oedema	8.7 (6.1-11.2)	7.2 (3.7-10.7)	9.7 (6.1-13.2)
Moderate acute malnutrition (MAM)	WHZ -3.0 ≤ WHZ < -2.0	6.9 (4.6-9.3)	5.8 (2.6-8.9)	7.7 (4.5-11.0)
Severe acute malnutrition (SAM)	WHZ < -3.0 and/ or oedema	1.7 (0.5-2.9)	1.4 (-0.2-3.1)	1.9 (0.3-3.6)
Stunting	HAZ < -2.0	53.3 (48.7-58.0)	55.8 (49.0-62.5)	47.5 (41.4-53.6)
Severe stunting	HAZ < -3.0	26.3 (22.3-30.4)	28.4 (22.2-34.5)	22.8 (17.7-27.9)
Underweight	WAZ < -2.0	31.1 (26.9-35.3)	31.7 (25.4-38.1)	30.1 (24.5-35.7)
Severe underweight	WAZ < -3.0	9.3 (6.6-11.9)	9.1 (5.2-13.0)	9.3 (5.7-12.8)

Table 1: Summary of Anthropometric data collection findings for Sekota and Dehana woredas, Wag Himra zone

The prevalence of stunting was estimated 53.3%, which surpasses national and regional figures⁴ of the latest Demographic and Health Survey (DHS) in 2016. When it comes to underweight children, the survey revealed 31.1% children affected and 9.3% children severely affected in both woredas.

Comparing findings from two woredas, wasting seems to be more prevalent in Dehana woreda while stunting is more common in Sekota.

COMMUNITY PERCEPTIONS OF UNDERNUTRITION AND THERAPEUTIC ITINERARIES

Members of visited communities struggled with the recognition of undernutrition through presented photos or drawings. In a sorghum and goat livelihood zone, where sensitisation activities were deemed more frequent, focus group participants did not make a link between an image portrayal of undernutrition and its presence in the community. Some participants observed a weight loss but considered it a normal occurrence in their circumstances⁵. It was only at the view of a “big belly” that they classified a child as unhealthy and in need of a treatment at a health facility. Most commonly used expressions to describe malnourished children were “*yakassa*” or “*yemenemen*”, which describe an extreme thinness or emaciation. The difference between the two is the severity of thinness, “*yemenemen*” being more serious than “*yakassa*”. When asked what causes that illness, some did not know while others attributed it to an “evil eye”, disease or inadequate food intake. One participant said that a disease can be transmitted from a sick mother to a child when breastfeeding.

In mixed cereal livelihood zone community members recognized children on the photos and drawings as “*yakassa*”. According to them an illness appears due to an inadequate food intake or previous disease.

Certain community members used a term “*tabeka*”, meaning very skinny/bony, or “*yabaka*”, meaning extremely thin, close to death. While the first one is perceived as a loss of appetite when a child catches *mitch* and it needs to be treated at a health facility, *yabaka* is considered a chronic disease and, therefore, would not trigger a visit at a health centre. In this respect, community members clarified that they would seek a health centre treatment only in case of acute diseases while chronic diseases are treated in a traditional way. According to them, *yabaka* can be treated

⁴ 39.9% and 46.3%, respectively.

⁵ A child showing ribs.

with linseed or minced root (“*mitatala*”), which can be found in a desert. Alternatively, holy water could be administered as a treatment.

In an Agonya-speaking community, participants referred to malnourished children as “*migebize koyeshu*”, meaning affected by a lack of food. The causes of malnutrition were largely unknown but thought to be linked with poor birth-spacing, premature weaning or a lack of complementary feeding.

At the view of a stunted child standing next to a healthy child, community members stated that both looked healthy, thinking that a smaller child was younger. When told that a smaller child was older, they contemplated that she must suffer from some stomach problem that prevents her from growing. They could not tell what could cause such an illness. They hypothesised that an illness could be caused by an inadequate diet (in terms of quantity), poor hygiene practices, poor birth-spacing or genetics.

Marasmus	
<i>beshita</i>	sick
<i>mekesat</i>	getting thin
<i>yakassa</i>	getting thin
<i>(ye)menemen</i>	getting extremely thin, emaciated
<i>yemigib etiret</i>	weight loss, disease of inadequate diet
<i>chamma</i>	skinny
<i>yabaka</i>	extremely thin, « close to death »
<i>tabeka</i>	very skinny, bony
<i>shiva</i>	extremely thin, disabled
<i>guzer (gutir)</i>	« big belly »
<i>buda</i>	« evil eye », « devil »
<i>migebize koyeshu</i>	affected by a lack of food

Table 2: List of expressions in a local language⁶ used to describe malnutrition and/or other childhood diseases

When it comes to an adult malnutrition, especially in pregnant and lactating women, focus group participants in a mixed cereal livelihood zone recognized that their women could be malnourished during that delicate period. They associated it with a lack of money, which prevents them from providing women with a diversified diet, and a disease, such HIV, tuberculosis or gastro-intestinal diseases. On the other hand, focus group participants in the sorghum and goat livelihood zone did not recognize that adults can suffer from malnutrition. In their understanding, only small children can get this illness. They did, however, acknowledge that pregnant and breastfeeding women are very vulnerable and not having an access to a balanced diet their bodies may not be strong enough to keep them and their children in good health.

According to key informants, most vulnerable children towards malnutrition are those from larger families, especially those with younger siblings as the care and attention of parents is often absorbed by the youngest ones. In practice, this includes children in 12-36 months of age span, depending on birth-spacing of children in respective households. In addition, a late initiation of complementary feeding of young children (at 12 months of age) could explain a higher prevalence of malnutrition at this age.

⁶ All terms, except the last one, are in Amharic. *Migebize koyeshu* is a term in Agonya used by community members in Tsata.

Therapeutic itineraries of undernutrition

The exchanges with key informants confirmed that at a recognition of “*yakassa*” or “*yemenemen*”, communities seek a PlumpyNut® or PlumpySup® treatment at a health facility. There is no alternative treatment available in the community. When presented with a story of a mother who tried to treat her malnourished child with the holy water, focus group participants agreed that she did not make a good decision because the holy water cannot treat malnutrition as “*it is caused by the lack of food*”. They added that she should have taken her child to a health facility to receive PlumpyNut®, commonly known as *mita mita* in Amharic. In Dida, however, holy water appeared to be an option, if treatment at a health facility is not or cannot be sought for logistical or financial reasons. Overall, a therapeutic itinerary of undernutrition in Wag Himra zone appears to be far less complex than in other contexts, for example in Chad. Nevertheless, as previously stated, if parents fail to recognise their child as *yakassa* or *yemenemen*, this may imply alternative therapeutic itineraries, which may or may not entail a visit at a health facility.

COMMUNITY PERCEPTIONS OF CAUSAL MECHANISMS OF UNDERNUTRITION

Communities’ etailed and complementary testimonies helped to define 2 key causal pathways of undernutrition in Sekota and Dehana woredas. While the first one is primarily set in the sector of food security and livelihoods – with important links with health, nutrition and care practices, the second one pertains mainly to water, hygiene and sanitation sector. Both have links with heavy workload of women and household size.

Household food security and nutrition causal pathway

The key trigger of the first causal mechanism is poor agricultural production, which is fuelled by multiple contributing factors, such as erratic rainfall, insufficient land size or low soil fertility. Considering that agricultural production is the main source of income and food for a majority of households in Sekota and Dehana woredas, low harvest has serious consequences on low household income as well as household’s capacity to sustain itself until the next farming season. Other income-generating opportunities being limited, household’s resilience capacities are substantially reduced and cannot be easily deployed at a time of shock. As a consequence, the household plunges in the liquidation of its assets, such as sale of crops previously set aside for farming or sale of the livestock. This leads to changes of its eating habits by limiting the quality as well as the quantity of consumed foods. The resulting inadequate food intake effects especially pregnant and lactating women as well as young children, especially in large households. In case of pregnant and lactating women, the inadequate food intake, coupled with dietary restrictions applicable during a fasting season, leads to a depletion of women’s energy and nutrient sources, which then translates into their low nutritional status. As a result, women experience problems with breastmilk production, and thus are often unable to meet nutritional demands of infants that they are breastfeeding, leading to undernutrition. Alternatively, poor household nutrition reflects negatively on young children’s complementary feeding practices. Due to the scarcity of income, women do not initiate complementary feeding until a child reaches one year of age nor they prepare him age-adequate meals. A child thus does not have access to a balanced diet, which would support his healthy growth and development.

Water, hygiene and sanitation causal pathway

The key trigger of the second causal mechanism is poor access to water. Considering that most households fetch water in springs, yield proportion are subject to seasonal variations and erratic rainfall. As a result, water is fetched in limited quantities, translating into low household consumption. Unavailability of water in the household leads to poor hygiene practices, such as infrequent bathing and clothes washing or inadequate handwashing practices, contributing to a heightened risk of contamination and spread of illnesses – the recurrences of which can lead to undernutrition. Alternatively, these can be triggered by a poor quality of fetched water, which disregarding the nature of the source, is not treated at the household level. While reasons for not practicing water treatment are numerous, key factors include deficient perception of water quality, belief in strong immune system, taste preference and underestimated link between water and diarrhoea. A connecting risk factor at the heart of poor water, hygiene and sanitation causal pathway is heavy workload of women, which is fuelled by their numerous household duties and which eventually reflects negatively on their capacity to practice adequate hygiene practices in line with sensitisation messages on the subject.

G. MAPPING OF OPERATIONAL ACTORS AND PERCEPTIONS OF INTERVENTIONS

Evolution of programming from an operational actors' perspective

Operational partners in the zone highlighted a number of fundamental changes in their approach, including a shift from emergency to development programming. That reflects positively on the duration and scope of their activities, which were relatively short-term and sector-oriented in the past. Nowadays, projects are longer and transition into multi-sectoral interventions, which are deemed to have a longer-lasting impact on targeted communities. The organisations reported to work through local partners, while also shifting from distributions, where local communities are mere beneficiaries of aid, to partnerships, where community members become partners with rights as well as responsibilities during the implementation of activities. In addition, organisations noted to have moved towards a more evidence-based approach, building their programming on plausible studies, rather than random community wishes. That is not to say that organisations do not take the community feedback into consideration, they do so, however, by more systematic means.

All of these changes were motivated by growing, unaddressed needs, the importance of engaging with communities in all stages of the project cycle and a change in organisational ideology and principles, putting more focus on use of resources' optimisation. This has led to more methodical work processes, improving the general quality of interventions and meeting desired objectives. In addition, new interventions are believed to strengthen community capacities, enabling them to respond better to potential future shocks.

Nevertheless, the volume and geographical coverage of interventions is not considered sufficient due to a vastness of the zone of study and immense needs of concerned populations. When it comes to the length of interventions, organizations noted that the duration of activities depends heavily on the guidance from the government based on hot spot reports compiled at the national level on a quarterly basis. These tend to prioritize urgent humanitarian needs, addressing immediate needs rather than their root causes. For that reason, most interventions are limited to 6-9 months. While tangible proof of these interventions, such as hand-dug well may last, behavior change interventions do not bear fruits due to limited time of implementation, and hence an inadequate strategy.

According to respondents, organizations plan activities well, taking into consideration seasonal variations and changing community needs/availabilities at those times. However, numerous delays at the governmental/donor level have a tendency to alter the timing of interventions substantially. Even more so if their own administrative procedures do not allow for a prompt start of activities.

Past and present interventions are reported to respect cultural and religious identity of targeted communities. A failure to do so would prompt an unfavorable feedback from both the government and the community and would not be tolerated. Neither of the organization reported to have faced this issue nor observed any negative impact of their interventions on targeted communities.

The selection of beneficiaries is regulated by the type of intervention and respective criteria are defined in line with respective project objectives. A proposed set of targeting criteria is consulted with local authorities and concerned communities and is, therefore, considered just and transparent. Most recurrent targeting criteria include a prevalence of malnutrition, presence of vulnerable groups in the household, such as children and pregnant and lactating women, vulnerable households included in the Productive Safety Net Programme (PSNP) or those households who cannot be included in the program due to resource limitations.

Evolution of programming from a beneficiaries' perspective

Gathering community feedback on past or present interventions proved to be a real challenge during the qualitative data collection for two principal reasons: a) community members demonstrated a very short term memory of interventions and/or were not concerned by them, and b) they might have felt uncomfortable sharing their sincere opinion, fearing they might end up losing very much needed assistance, if their words fall into wrong hands. While their priorities were integrated into a community action plan presented in Annex D, this sub-section will prioritise highlighting key messages that came out of community consultations on the subject.

Focus group participants highlighted a general lack of community engagement in past or ongoing interventions. They stated that they are not systematically informed about projects' modalities and they do not know, whom they could request the respective information from. As an example, they mentioned a study on iron mining, regarded highly in the concerned community, which was done some years ago but they have not heard about the results, both positive and negative, of the study since. They also mentioned that organisations invite them to define their priorities but they are often disregarded later on the decision-making process.

"We have been talking about a water point so much to no avail that we did not want to mention it again because our requests have never been listened to."

Focus group participants, Silda

As a result, communities feel that *"NGOs are working hard but the situation is not improving."* According to them, all interventions are based on good intentions but are very short and address their immediate needs, rather than deep problems, which are ravaging their communities. They said that provided assistance patches few superficial holes, while the *"whole garment is torn apart"*. In addition, communities believe that sensitisation activities have become inefficient, especially when organised by health extension workers. According to them, HEWs do not have required skills and knowledge to share important information and assist them on the path to behaviour change. They added that they do not appreciate the authoritarian tone of sensitisation sessions and would prefer to be informed comprehensively about issues of importance, on the basis of which they could take suitable decisions.

H. SUMMARY OF FINDINGS AND CATEGORISATION OF RISK FACTORS

After the completion of both quantitative and qualitative data collection, Link NCA Analyst triangulated all available data sets, compared correlations for each risk factor and determined the strength of its association with undernutrition. The ratings for each hypothesized risk factor are summarized in the table below.

	Risk factor	Prevalence from secondary data /literature review	Correlations from quantitative survey	Strength of association with under-nutrition from literature review	Seasonal and historical associations with under-nutrition	Findings from the qualitative survey	Community rating exercise	Interpretation/ Impact of risk factor
A	Poor access, utilization, and quality of health services	++	++	++	+	++	++	Important
B	Poor birth spacing	++	+++	++	++	+	+	Important
C	Low birth weight	+	N/A	++	+	-	-	Minor
D	Sub-optimal breastfeeding practices	+++	N/A	+++	+	++	+	Important
E	Poor complementary feeding practices of children 6-23 months	+++	+++	+++	+	+++	++	Major
F	Poor agricultural (crop and livestock) production	+++	++	++	++	+++	+++	Important
G	Low household purchasing power	++	+	++	+	+	+	Minor
H	Poor physical access to markets	+	N/A	+	+	-	-	Rejected
I	Poor resilience capacities	+++	++	++	++	+++	+++	Important
J	Poor access and availability of water (quality and quantity)	+++	+++	+++	++	+++	+++	Major
K	Poor water handling leading to unsafe water	+++	++	+++	+	+++	++	Important
L	Poor sanitation and hygiene practices	++	+++	+++	+	+++	++	Major
M	Unhygienic play area for children	+	+++	+++	+	+++	+	Major
N	High women workload	++	++	++	-	+++	+++	Important
O	Low women empowerment and low involvement of women in	+	+++	+	-	+	+	Important

	household decisions							
P	Early marriage and pregnancies	+	+	++	+	+	-	Minor
Q	Low nutritional status of women including adolescents	+++	++	++	++	++	++	Important

Table 24: Summary of categorisation of risk factors

At the same time, Link NCA Analyst revisited sectoral causal pathways of undernutrition, as developed with communities during the qualitative inquiry, and developed two simplified outlines, likely to explain most cases of wasting and stunting in Sekota and Dehana woredas. Most importantly, this exercise allowed to differentiate between diverse causal mechanisms for wasting and stunting, highlighting the relevance of adapting response strategies to respective type of undernutrition.

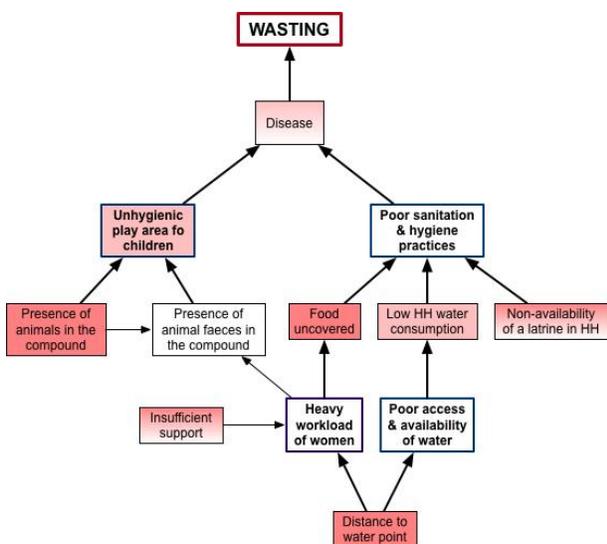


Figure 7: Simplified causal pathway likely to explain most cases of wasting in Sekota and Dehana woredas, Wag Himra zone⁹⁶

As shown in the diagram to the left, a key trigger for wasting is distance to water point, which translates into a poor access to water and consequently into a low household consumption. Unavailability of water in the household leads to poor hygiene practices, such as inadequate food handling, contributing to a heightened risk of contamination and spread of illnesses – the recurrences of which can lead to wasting. The illnesses can also be brought about by inadequate defecation practices due to a lack of a household latrine. Alternatively, a heavy workload of women, fuelled by their numerous duties in and out of the household, reflects negatively on women's capacity to maintain a clean play area or children. This increases a risk of contamination via animals or their faeces, leading to diseases, including diarrhoea, and potentially to wasting.

It is also important to note that analyses demonstrate a significant link between wasting and sex of a child, meaning that boys are more likely to be wasted than girls. This may be due to diverse, gender-determined care practices after childbirth.

It is also important to note that analyses demonstrate a significant link between wasting and sex of a child, meaning that boys are more likely to be wasted than girls. This may be due to diverse, gender-determined care practices after childbirth.

A causal mechanism for stunting is a little bit more complex and extends beyond the sector of water, sanitation and hygiene. While a water, sanitation and hygiene mechanism remains largely applicable for stunting as well (with the exception of poor food handling replaced by inadequate water treatment practices), it acquires a new and important dimension linked to a household composition and decision-making powers. The findings indicate that a male head of household may tend to restrict decision-making powers of his spouse, particularly with regards to the use of her own income, food purchases and a consumption of household's own production. This not only limits woman's capacities to prepare adequate meals for the household, both in terms of quality and

quantity, but it may also provoke negative coping strategies within the household, which a woman is not capable to control. The risk increases proportionately to a growing household size. As a result, children do not have access to adequate food intake and their growth may be delayed.

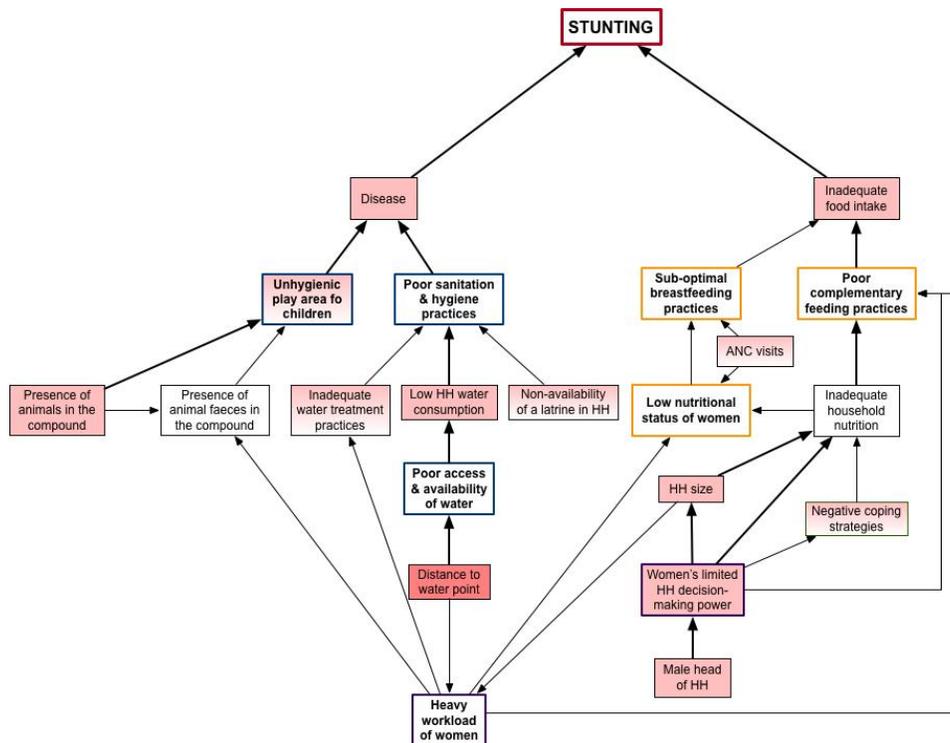


Figure 8: Simplified causal pathway likely to explain most cases of stunting in Sekota and Dehana woredas, Wag Himra zone⁷

I. CONCLUSION AND RECOMMENDATIONS

The analyses undertaken during this Link NCA study allowed to identify 17 risk factors, believed to have an impact on the incidence of undernutrition in the zone of study. Following a triangulation of data from diverse sources, four (4) risk factors were identified as having a major impact, nine (9) risk factors were classified as having an important impact and three (3) risk factors were judged to have a minor impact on the incidence of undernutrition in the zone of study. In addition, one (1) risk factor was interpreted as not having an influence on the incidence of undernutrition in the zone of study.

Among the major risk factors, three were identified in the sector of water, sanitation and hygiene, namely poor access to water, poor hygiene and sanitation practices and unhygienic play area for children, while the last major risk factor, poor complementary feeding practices of children 6-23 months, was identified in the sector of health and nutrition.

The calculation of statistical associations between individual risk factors and wasting/stunting allowed to differentiate between causal mechanisms of these two forms of undernutrition and to simplify rather complex pathways for operational purposes.

Based on the findings of this Link NCA study and considering that causes of undernutrition are multi-sectoral and necessitate longer-term interventions, RESET II project proves its significant

value in the context of Wag Himra zone. However, there is a need and a room for improvement or reorientation of current interventions to act more effectively on community's needs and priorities.

The following adaptations, per thematic areas, are thus recommended to be considered for an incorporation into current/future interventions:

- Reinforce the community empowerment to detect problems and identify local solutions to address them by improving telephone network coverage facilitating the access to information;
- Expand mobile banking into rural areas to allow for a quicker access to financial resources.

Health and Nutrition

- Improve the quality of care, especially through a continuous reinforcement of health personnel skills and capacities and a constant availability of medicinal products;
- Improve the access to health facilities, especially through innovative, low resource community approaches addressing geographical and financial barriers of access;
- Improve the health-seeking behaviour for child illnesses, including malnutrition, through revamped sensitisation sessions considering current community understanding of symptoms, causes and therapeutic itineraries of principal childhood illnesses;
- Improve access to acceptable contraception methods and re-design sensitisation strategies on the importance of birth-spacing and family planning considering current community understanding and identified barriers to change, paying particular attention to gate-keepers with influence to sway public opinion on the matter;
- Re-design sensitisation strategies on household nutrition considering community limitations of access to certain food groups, paying particular attention to nutrition of pregnant and lactating women and children under 5 years of age.

Food Security and Livelihoods

- Support the establishment of farmer's associations to promote information sharing and effective agricultural techniques;
- Improve the diversification of income-generating activities through information sharing and training, e.g. poultry farming, brick-laying, masonry, sewing, wood work, metal work, bee-keeping, small-scale trade, etc;
- Support home gardening initiatives to diversify household income-generating capacities and/or food diversity.

Water, Sanitation and Hygiene

- Improve the community access to water, through a construction of new or a rehabilitation of existing water points and their regular chlorination;
- Re-design sensitisation strategies on hygiene and sanitation practices, especially on water treatment, handwashing and food handling, considering current community understanding and identified barriers to change;
- Improve the community access to latrines, via a personalised household support of the latrine construction.

Gender

- Improve the community access to electricity/solar power, thus facilitating the use of alternative cooking devices to help reduce women's workload related to food preparation and firewood collection;
- Ensure the integration of sensible sensitisation messages on gender roles and decision-making within the household into existing or future interventions in other sectors;
- Consider the appointment of model fathers for the culturally-acceptable promotion of improved gender roles within the community.