

NUTRITION CAUSAL ANALYSIS STUDY

South and Central Somalia

November 2015



A Study by the

SNS
CONSORTIUM



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World Food Programme

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In Somalia

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To all we say “Mahadsanid”

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Acronyms

ACF	Action Contre La Faim / Action Against Hunger
ANC	Ante Natal Care
ARI	Acute respiratory tract infections
CAHWs	Community Animal Health Workers
CHWs	Community Health Workers
CLTS	Community Led Total Sanitation
Deyr	Short rains season (October – December)
DFID	Department for International Development
DRC	Danish Refugee Council
FGD	Focus Group Discussion
FGM	Female Genital Mutilation
FSL	Food Security and Livelihoods
FSNAU	Food Security and Nutrition Analysis Unit
GAM	Global Acute Malnutrition (WHZ < -3 Z scores)
GAM—MUAC	Proportion of children under five with MUAC under 12.5cm
GREDO	Gargaar Relief and Development Organization (GREDO, SCI Partner)
Gu	Long rains season (April-June)
IDP	Internally displaced persons
IDPs	Internally displaced Persons
IGAS	Income Generation Activities
IOM	Institute of Migration
IYCF	Infant and Young Child Feeding
KII	Key Informant Interview
MUAC	Mid-Upper Arm Circumference
NAG	Nutritional Causal Analysis Advisory Group
NCA	Nutrition Causal Analysis
NGO	Non-Governmental Organization
NRC	Nutritional Rehabilitation Centre
OTP	Out-patient Therapeutic Programme
PLW	Pregnant and Lactating Women
RUTF	Ready to Use Therapeutic Food (Plumpy Nut)
SAM	Severe Acute Malnutrition (WHZ under -3 Z scores)
SAM-MUAC	Proportion of children under five with MUAC under 11 cm
SC	Stabilization Centre
SC Somalia	South Central Somalia (distinct from Somaliland and Puntland)
SCI	Save the Children International (SNS Lead Agency)
SCZ	South Central Zone, Somalia
SMART	Standardized Monitoring and Assessment of Relief and Transitions
SOS	SOS Children's Village
SNS	Strengthening Nutrition Security in South Central Somalia
STIs	Sexually Transmitted Infections
TBA	Traditional Birth Attendants
WFP	United Nations World Food Programme
WASH	Water, Sanitation and Hygiene



Key Concepts Used

Acute malnutrition: Inadequate nutrition caused by the lack of an adequate, balanced diet, or by disorders of the digestive system such that nutrients from food consumed cannot be absorbed properly. This commonly manifests as Kwashiorkor or Marasmus.

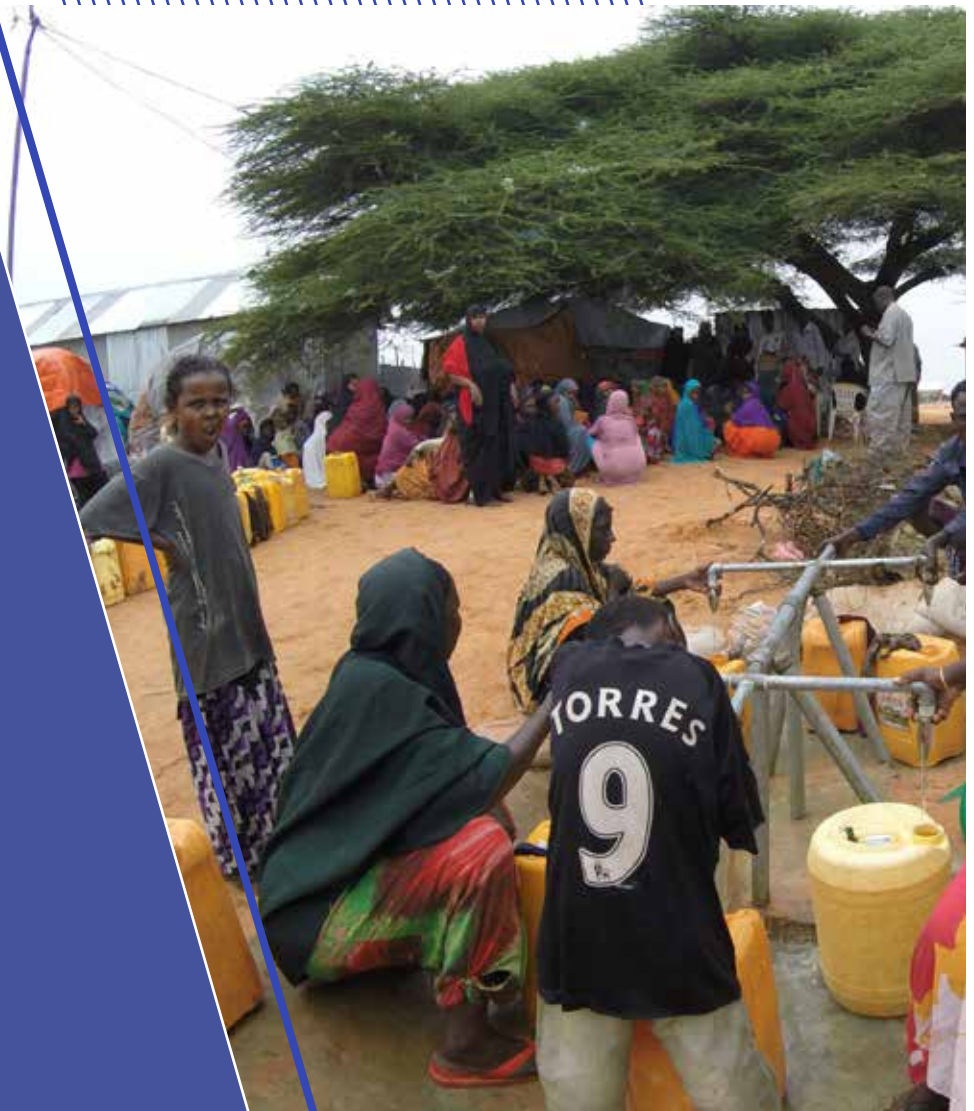
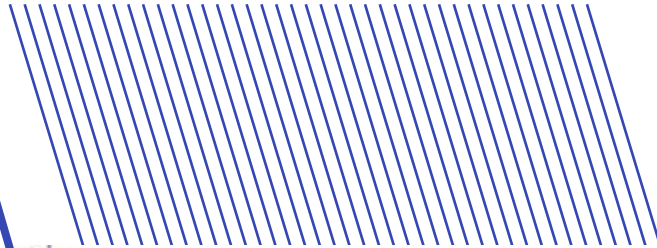
Livelihood: is a way of making a living. It encompasses people's capabilities, assets, income and activities required to secure the necessities of life (IFRC, undated). This typically involves securing adequate water, food, fodder (as appropriate), medicine, shelter and clothing. According to the FSNAU 2015 Livelihoods map (see page 29), the three main rural livelihoods in Somalia include Pastoral, Agro-Pastoral and Riverine farmers. In addition, an urban livelihood is found in major urban centers.

Internally Displaced Persons (IDPs) comprise persons who either initially engaged in rural livelihood activities, mainly crop and/or livestock production, but are unable to continue these businesses due to loss of their investments as a result of drought, floods or significant insecurity. Consequently, they have fled their places of origin and are now settled in parts of urban centers generally known as "IDP Camps".

Link Nutrition Causal Analysis (NCA): This study drew on the Link ACF approach, but significantly modified it as a result of South Central Somalia contextual realities combined with time, budget and capacity limitations. It entails a mixed-method research framework developed by ACF International, to identify and analyze the multiple causes of malnutrition and under-nutrition in a specific context. Seeking to explore key underlying factors which contribute to ongoing malnutrition in a particular area, as well as the causal pathways by which children have become malnourished, Link-NCA studies are specifically intended to improve the relevance and effectiveness of nutrition security and related programming.

1. See www.LinkNCA.org for further information and valuable, user-friendly key resources (ACF 2015) adaptable to different contexts

Executive Summary



The SNS Consortium with support from WFP, carried out a Nutrition Causal Analysis (NCA) study across six locations in South Central Zone (SCZ) Somalia, between March and November 2015. These included the following Livelihood Zones: Beletweyne riverine, Baidoa agropastoral and Dollow pastoral rural livelihood zones, as well as Mogadishu urban, plus Mogadishu and Dollow Internally Displaced Persons (IDP) settlements. This NCA Report includes a specific section on each of the six NCA studies undertaken. The aim of the study was to investigate key factors that contribute to acute malnutrition in particular contexts, and the relationship between these factors as experienced by the communities studied, to highlight recommendations for service providers in the interest of strengthening prevention and support initiatives. The Mogadishu urban community, which displays stronger nutritional status, was specifically included as a relatively positive case to highlight learning for key actors.

The study drew on the Link-NCA methodology developed by ACF, adapting and applying it in the six South Central Somalia study locations as feasible. It should be noted that the SNS Consortium was established to work in particularly vulnerable, prolonged malnutrition “hotspots” in South Central Somalia which means that the study was undertaken in extremely challenging circumstances. Each of the six location NCA Study findings are to a degree context specific and caution should be taken when extrapolating the findings of a particular NCA study more widely. Significant, extreme challenges have been faced throughout the process for many reasons and inevitably, the main challenges impacting on the study itself are those which continue to affect all humanitarian efforts and actors in South Central Somalia. Related challenges faced and learning are highlighted in the report’s final section. The research explicitly sought to develop more nuanced recommendations to inform related programming by key SCZ actors. In-depth Focus Group Discussions and Key Informant Interviews were the main methods used to gather qualitative data on the underlying drivers of acute malnutrition in select locations.

While many NCA findings serve to confirm existing knowledge, as anticipated, others provide more nuanced, context-specific understandings of issues with particular local significance. In all NCA study locations the causes of acute malnutrition are multiple and complex. See the six Causal Pathways on pages 7 - 13 below which summarize the findings per NCA study. They include less known underlying drivers in need of urgent attention, as well as factors already typically addressed in nutrition-sensitive programming in South Central Somalia.

On the ground realities in many complex and highly insecure SNS SCZ locations where the NCA took place, combined with weak qualitative research capacity amongst local research teams able to access the NCA

study locations, largely explain significant limitations in the NCA process and findings. Overall, NCA Advisory Group members remain disappointed with the limited depth apparent in much NCA data, which has inevitably impacted on the comprehensiveness of the findings which are not as nuanced as expected¹. Notwithstanding these weaknesses, at the same time the findings do serve to highlight some critical underlying drivers of acute malnutrition in specific SCZ contexts and to raise important questions about appropriate nutrition sensitive programming and the limitations of dominant responses.

Unsurprisingly, the NCA research has confirmed that as well as insecurity, climatic and seasonal factors and notable poverty amongst some communities, dominant child care practices and select socio-cultural beliefs remain core drivers of malnutrition in SC Somalia, due to their negative impact on the lives, livelihoods and nutrition status of the communities studied. In all communities studied, weak infant and child feeding and care practices, combined with poor hygiene, the lack of basic health and WASH facilities and women’s excessive workloads, which commonly take mothers away from their very young children, are seen to have a major impact.

Dominant socio-cultural beliefs and related social norms including dietary taboos and, in some communities, extremely young marriage (from 13 years old) and child-bearing ages for girls, Female Genital Mutilation and the growing phenomenon of female-headed households in many areas, widely impact adversely on the health, well-being and nutritional status of communities studied. Dominant beliefs about the “inadequacy” of a mother’s breast milk to satisfy the needs of her new-born, continue to fuel diarrhoea and heightened vulnerability among infants. The lack of adequate basic health, nutrition, education, WASH and other services continues to negatively impact on nutrition status. So too do limited or non-existent income generation opportunities for more vulnerable community members. In farming and pastoral areas, many respondents noted with concern the lack of support to strengthen community skills (agricultural and livestock related) and their lack of access to resources like livestock specialists, basic farm equipment and quality seeds, which they perceive could help to increase local production, strengthen livelihoods and nutritional status.

Social support networks, clan and other, are also of significance in relation to helping families and wider communities more effectively negotiate periods of extreme shock, stress and vulnerability. The NCA has taken place in the late aftermath of the 2011 drought and famine, at a time of reducing humanitarian actors and services in South Central Somalia, which is heightening the vulnerability of some communities who had come to depend on such support to feed and raise their families. South central Somalia is also the region where families, particularly vulnerable ones, have least

¹ This has proved the case despite the extensive technical, logistical and other support the lead researchers and research teams received throughout the process.

access to diaspora family members and remittances. Notwithstanding the above factors, in all livelihoods studied the relatively better off are seen to have stronger nutritional status, albeit to varying degrees. The most vulnerable community members are further hit by the lack of income generation opportunities, on top of all the above. Limited access to income across the assessed communities impacts significantly on their ability to meet their basic needs, including for health care and education, most of which services remain private. Asset-poor communities also display a limited social support system, which heightens their vulnerability to poor health and malnutrition.

The six NCA Study reports included here document a range of community and location-specific factors that impact on malnutrition in particular contexts. In contrast lessons can be learned from the Mogadishu urban communities studied, which illustrate the significance of strong social networks and support, access to formal education, higher marriage and child-bearing ages for girls.

Analysis of the NCA data has highlighted the following key recommendations per study area.

NCA 1 - Mogadishu IDP Communities Key Recommendations

1. Increase household access to basic health, nutrition, WASH and education services, especially amongst minority communities.
2. Support income generation activities and opportunities for minority families in particular.
3. Explore ways to increase cash flow into Mogadishu IDP settlements in a sustainable manner. For example:
 - Explore options to open up markets in the settlements where IDPs trade among themselves
 - Improve IDP business and vocational skills
 - Help ensure that vulnerable community members have access to formal education, especially women and children.
 - Consider establishing Cash Transfer Programmes that specifically target Mogadishu IDPs, including issuance of revolving funds or loans to support new businesses.
4. Reduce the high incidence of childhood disease:
 - Ensure local accessibility to immunization services and MCHs, to better control communicable disease.
 - Ensure adequate WASH facilities and actively promote improved hygiene by raising awareness on the importance of personal and environmental hygiene.
 - Ensure appropriate health and nutrition education and promotion.
 - Strengthen the quality of health services, e.g. train health personnel to diagnose and treat simple ailments, train staff on ethical service delivery including not discriminating

against patients from particular backgrounds or locations and ensure the availability of essential drugs.

5. Improve the public health environment:
 - Sanitation: Support community members to keep their environment clean, e.g. to bury children's stool and empty full latrines using exhausters, on a regular basis. Provide the necessary equipment.
 - Water: Support the provision of adequate WASH facilities, e.g. by providing basic instruments to dig (for urban settlements where shallow wells are available), as well as helping IDPs access water tanks, jerry cans (for water storage), taps, pipes and aqua-tabs.
 - Hygiene: Run Nutrition, Hygiene and Health Promotion (HNNP) programmes to raise awareness and foster improved hygiene in IDP communities.
 - Health care: Provide MCH programmes in IDP settlements, specifically for IDPs, include family planning services, EPI, assisted deliveries, pre-natal and ante-natal services. Ensure IDP access to outpatient services and hospitals with qualified personnel, drugs, and EPI supplies. Consider providing EPI services through the Madrasas where children congregate for lessons.
6. Improve the socio-care environment for women and children. Specific areas of focus to include:
 - Programmes to help reduce women's heavy workload so they are better able to care for children and themselves, e.g. through supporting Madrasas to offer day care for children left unattended while their mothers are working. Involve IDPs in managing and staffing such facilities.
 - Set up long term social and behavioural change initiatives to tackle questionable socio-cultural beliefs and practices that impact negatively on health and nutrition. For example, FGM, beatings and rape against women and girls.
 - Raise awareness on the importance of child spacing and its significance to the health of women, infants and children.
 - Consider ways to effectively address the phenomenon of rising divorce rates and irresponsible husbands who often fail to support their families following divorce. The NCA study showed this to be critical to nutritional status as it happens more often when girls are forced to marry at a young age and bear children when they are neither physically, emotionally, nor socially mature enough. Divorced young mothers (often 15 or 16 years old) are ill placed to meet the needs of their young children.
 - Explore potential support mechanisms to strengthen the wellbeing of vulnerable women, e.g. self-help groups and mobile counselling services. Consider a legal framework where complaints can be channelled and addressed.
 - Explore opportunities to strengthen the

protection of vulnerable women and children in particular, e.g. enhancing security in settlements and making referrals to local Social Protection actors.

Health and nutrition related challenges associated with premature girls' marriage, underage pregnancies and poor child spacing are already known by the IDP communities. This provides a good starting point for related social and behavioural change initiatives.

7. Improve Infant and Young Child Feeding (IYCF) practices.
 - Implement related social and behavioural change programmes to strengthen awareness, tackle deeply rooted, negative beliefs and practices, and foster environments conducive to optimal IYCF.
 - Consider opportunities to establish local mentoring programmes which bring together positive deviants and young mothers or soon-to-be mothers, to enhance IYCF support and practice.
 - Explore ways of effectively engaging community and religious leaders (including grandmothers and other opinion leaders) in related promotion efforts.
8. Strengthen household food security, e.g. by enhancing the access of vulnerable community members, including minorities, to income generation and Cash Transfer Programmes. Specifically target IDPs and women-headed households to enable them to access resources to improve their livelihoods.
9. Improve household diets. Raise awareness on what constitutes an appropriate diet for the household, in particular for children under five years old, based on locally available resources.
10. Increase IDP access to existing humanitarian services and resilience programmes. Address related issues of distance/ transport costs, discrimination in service delivery, lack of awareness and service quality.
11. Adopt and advocate for more integrated service provision. Current stand-alone projects in IDP settlements are unlikely to have a significant impact due to the common lack of synergy with complementary programmes in other sectors. Nutrition, health, WASH and livelihood services should be integrated, to ensure a more holistic basic service package for vulnerable community members.
12. Governance: Consider ways to effectively address the barriers that contribute to the further marginalization of Somali minorities, which hinder their access to opportunities to improve their own lives.

NCA 2 - Mogadishu Urban Communities Key Recommendations

1. Strengthen programmes that increase income generation opportunities among the vulnerable urban poor. These might include (i) Cash Transfer programmes which could be undertaken between July and September during sea port closure as a result of monsoon winds, which decreases casual job opportunities; (ii) Provide business skills training; (iii) Explore ways to address social or discriminatory barriers that limit the poor from participating in retail and trade activity.
2. As 90-100% of Mogadishu resident household food is purchased, income generation opportunities should enhance household access to food. Related programmes need to target women in particular.
3. Support the formation of social support groups where members can exchange information and address common concerns. Provide skills training where feasible.
4. Consider policy decisions (at employer, donor and government levels) to actively foster the employment of members of the urban poor, in particular of minority clan members, who voiced significant concerns about widespread discrimination and lack of access to services. For example, while women from some communities jump the queue at health facilities and spend a relatively long time with health staff, those interviewed shared experiences of having to spend far longer in health facility queues and being granted very little time with health personnel.
5. Strengthen and expand livelihood and resilience programmes to address long term poverty.
6. Sharia compliant credit facilities or grants, where the urban poor can access soft grants, could be considered for self-help groups
7. Address weak IYCF practices that hinder nutrition:
 - Develop long term social and behavioural change programmes to raise awareness and promote optimal IYCF. For example, to discourage giving new-born babies sugary water soon after birth.
 - Foster enabling environments to facilitate appropriate IYCF at community level. For example, day care centres for infants and young children while their mothers are working.
 - Establish mentorship programmes to enable young mothers and soon-to-be mothers to learn from positive role models within the community.
8. Address negative socio-cultural beliefs and practices which affect infant and child health and nutrition, through long term social and behavioural change programmes. For example, the belief that children should not be immunized within forty days of birth and the use of burning and cuts to

accelerate healing in children.

9. Improve the socio-care environment for vulnerable urban women and children.
 - Strengthen awareness about the dangers of FGM:
 - NCA findings show that men and women, older women and community leaders all consider FGM to endanger girls and believe that it impacts on health and nutritional well-being. This provides important openings, for example, to work with relevant actors to support social change efforts towards more positive rites of passage.
 - Tackle early age marriage for girls, premature childbearing and traumatic deliveries:
 - Develop and enforce laws against early marriage for girls.
 - As about 80% of mothers deliver with the assistance of Traditional Birth Attendants (TBAs), barriers that hinder women from using official health services need to be explored. For example, MOH supported midwives need a stronger presence among Mogadishu urban poor communities to ensure appropriate antenatal care and safe childbirth.
 - The MOH could be supported to provide ambulances with skilled health personnel, to service affected communities and take those in need to hospital.
 - Raise awareness on the benefits of child spacing to family health. Promote culturally acceptable options.
 - Enhance the security and protection of girls and women. For example, liaising with key protection actors and involving local leaders in efforts to tackle factors that contribute to violence and rape.
10. Ensure access to Maternal and Child Health programmes where antenatal care, postnatal care and immunization services can be accessed and common diseases treated, e.g. through non-discriminatory mobile clinics.
11. Ensure adequate WASH facilities and Nutrition, Hygiene and Health Promotion (NHHP) initiatives². As well as fostering hygiene, increased household access to wells and taps would reduce the time women spend fetching water and liberate time for child care (although this is not to be assumed).
12. Explore options to strengthen poor family access to health services, especially for childbirth. For example, negotiate public-private partnerships with hospitals to provide subsidized services to the poor.
13. Improve the targeting of beneficiaries in lifesaving programmes, and non-discriminatory practice, to ensure that the basic needs of the most vulnerable, including the urban poor, are addressed.

2 The UNICEF developed NHHP Manual and resources are widely available and already translated into Somali

3 Conservation Agriculture (CA) is an approach to managing agro-ecosystems for improved and sustained productivity, increased profits and food security while preserving and enhancing the resource base and the environment. It is characterized by three linked principles: Continuous minimum mechanical soil disturbance; Permanent organic soil cover and the diversification of crop species grown in sequences and/or associations (<http://www.fao.org/ag/ca/1a.html>).

14. Research the impact of men's khat chewing on family nutritional status and child care.

NCA 3 - Beletwayne Riverine Communities Key Recommendations

1. As crop production constitutes the main livelihood in Beletwayne Riverine communities, contributing to over 50% of food and income despite high insecurity, this livelihood needs securing for sustainable optimal nutrition. The study recommends the provision of small-scale agricultural farming support for approaches which make the most efficient use of available water, to increase field cultivation and harvests for households with access to land. This includes supporting access to appropriate farming techniques (i.e. Conservation Agriculture³), seeds and basic tools, as well as to technical crop management support (how to cultivate, plant, manage, harvest and store crops appropriately in local conditions). Advice on growing nutritional food is also recommended.
2. Increase access to public health services and to health promotion:
 - Provide accessible health services in Beletwayne rural areas. Consider mobile services, or subsidies to private health care, to enable the poor to access necessary services.
 - Provide MCH services where ante- and post-natal care can be accessed locally. To include immunization services, health education and advice on child spacing.
 - Raise awareness about health and nutrition within these communities to strengthen health seeking behaviour. Involve TBAs, older women (mothers-in-law) and men as potential change agents, given their influence on decisions about the types of food pregnant women and children eat.
 - Focus explicitly on personal and environmental hygiene, as well as appropriate household diets.
 - Address personal and environmental hygiene and WASH issues including dominant practices of open defecation and inadequate hand-washing. Link with related initiatives like local Community Led Total Sanitation (CLTS) programmes.
3. Provide OTP services in riverine areas close to areas of need and ensure Stabilization Centre access for severely malnourished children.
4. Develop long-term social and behavioural change initiatives to raise awareness about and strengthen IYCF practice. To include the promotion of exclusive breastfeeding, persistent breastfeeding and appropriate complementary feeding. Actively discourage bottle-feeding, except in extreme cases.

5. Strengthen the social welfare of women and children affected by acute malnutrition by supporting local social/ support groups, offering counselling services at health facilities and developing mentorship programmes where positive deviants can support families with malnourished children.
6. Explore opportunities to support income generation and to secure adequate access to food. Business skills and social welfare programmes should target training vulnerable groups in particular, including minorities.
7. Consider efforts to strengthen access to livestock (mainly chicken, goats and cattle), to ensure adequate household access to eggs, milk and meat and to strengthen access to income through related sales. Explore opportunities to provide the necessary veterinary support services.
8. Food security strategies need to take into account the impact of seasonality, increased reliance on irrigation rather than rainfall and the particular burdens faced by women and girls.
9. Enhance security and ensure the protection of women and children, in particular from armed militia.
10. Proactively address barriers that serve to marginalize Somali minorities and which prevent them from accessing basic services and land.

NCA 4 - Dollow IDP Communities Key Recommendations

1. Address environmental health issues, e.g. ensuring access to clean toilets and safe drinking water for all IDPs.
2. Explore opportunities to introduce day care centres for children, for the benefit of families when mothers have to leave their children to seek casual labour e.g. expand existing madrasa facilities (which most children attend) to include day care for infants and younger children.
3. Ensure the integration of basic health (including Mother and Child Health) and nutrition services among the IDPs. Integrate nutrition services with protection rations and ensure equity in distribution, to avoid the inappropriate sharing of RUTF within and between families.
4. Engage religious and community leaders, teachers, community health workers and other influential community members in nutrition promotion efforts, IYCF in particular.
5. Explore opportunities to stimulate IGAs, especially amongst the most vulnerable community members.
6. Monitor rigorously and ensure that the most vulnerable IDP families have access to the

necessary humanitarian assistance.

7. Implement short and long term behavioural and social change programmes to tackle the multiple factors that mitigate against optimal IYCF.

NCA 5 - Dollow Pastoral Communities Key Recommendations

1. Strengthen awareness and empower caregivers and other community members with health, nutrition and other necessary knowledge, including on:
 - Use of livestock products to improve their nutritional status.
 - Optimal breastfeeding
 - Complementary feeding
 - The importance of appropriate health seeking behaviour
 - The importance of proper sanitation and hygiene practices
 - Knowledge about balanced diets.
2. Develop and support long term social and behavioural change communication programmes linked to all the above.
3. Improve nutrition, WASH and related knowledge and awareness amongst pastoralist leaders, Community Health Workers (CHWs), Traditional Birth Attendants (TBAs) and others as feasible. Strengthen referral services to accessible health and nutrition services (where they exist).
4. Improve the capacity of Community Animal Health Workers (CAHWS) on livestock management. Ensure their accessibility, in particular to vulnerable community members.
5. Make a concerted effort to both provide urgently needed basic health and nutrition service, and to encourage their use, by ensuring they are accessible to vulnerable community members and of quality.
6. Opportunities to educate boys and girls on nutrition through schools (including Quranic schools) and School Health Clubs should be further explored.
7. Improve the health and security of pastoralist community livestock.
8. Provide mobile health, nutrition and livestock programmes to circulate amongst these settled pastoralist communities:
 - Introduce mobile services along migratory routes, or construct Health Posts along long term migratory routes.
 - Develop and support teams of mobile health and nutrition workers to service these communities.
9. Establish mobile schools and educational programmes, accessible to the communities studied.

10. Strengthen community resilience to drought by supporting collective action to reduce and mitigate the effects of drought, and establish appropriate drought recovery mechanisms.

NCA 6 – Baidoa Agro-Pastoral Study Key Recommendations

1. Improve caregivers' basic knowledge about nutrition through IYCF promotion, one to one counselling of mothers and other promotion efforts.
2. Establish appropriate long-term behavioural and social change communication programmes.
3. Work closely with CHWs, TBAs and others regularly consulted by local communities when official health services remain largely inaccessible. Upgrade their knowledge, skills and referral mechanisms (to official services) as feasible.
4. Explore opportunities to support local communities with farming resources such as quality seeds, basic farm tools and training on appropriate, low-input, sustainable agricultural practices.
5. Improve availability of and access to veterinary services and appropriate livestock drugs.
6. Explore opportunities to strengthen fathers' engagement in IYCF and other programmes linked to the health of their families.
7. To support the above, explore opportunities to effectively engage community and religious leaders in IYCF promotion efforts.
8. Explore local opportunities to strengthen women's support networks and establish effective mentorship schemes.
9. Further research is needed into the impact of fathers chewing khat regularly, on family nutritional status.

NCA Recommendations valid across all communities studied

1. Strengthen links with Resilience and Income Generation programmes in particular, to foster access to income and strengthened community resilience amongst vulnerable groups. Ensure that the poorest and most vulnerable are prioritized.
2. Increase access to basic health, nutrition and WASH services, particularly for women, infants and children.

3. Strengthen integration between basic health and nutrition and WASH programmes and services.
4. Urgently address gaps in access to safe water, hygiene and sanitation. Address related poor behaviour and questionable community norms, through long-term social and behavioural change initiatives.
5. Use all opportunities to strengthen awareness and knowledge on basic health, nutrition and hygiene. This could include engaging community and religious leaders, TBAs and others in a variety of complementary promotion efforts.
6. Support the formation of social support groups, especially for mothers. Explore opportunities to offer vocational skills training to these groups.
7. Actively engage fathers, community leaders and other influential community members in nutrition and IYCF promotion efforts.
8. Monitor humanitarian initiatives rigorously to ensure that support provided is reaching those intended, including the most vulnerable in particular settings.
9. Raise awareness at all levels about the impact of different forms of violence against girls (i.e. under 18 years old) and women on nutritional and health status. This includes the impact of early marriage and related pre-mature child bearing and of FGM and its consequences. Advocate for urgent action in this area.
10. Actively seek to build on local strengths and assets, human resources in particular, in all related programming. Somali communities are known internationally for their exceptional energy, entrepreneurial skills and strong social support networks, which should be drawn on in efforts to promote the above changes.

As anticipated, most NCA Study findings are not new and serve to confirm what key actors in Somalia already know about the factors that combine to heighten vulnerability to and incidences of malnutrition. Unfortunately for many reasons (in particular due to insecurity which did not allow lead researcher access to the field, or rigorous quality assurance in notably insecure NCA locations, combined with limited capacity), the extent of probing evident from the field research transcriptions remains limited. As well, the process of developing NCA study hypotheses was done too quickly, without engaging enough diverse stakeholders















and consequently remained limited.⁴ Consequently, the study has elicited less “new”, in-depth knowledge relevant to the underlying drivers of acute malnutrition than anticipated. These issues are discussed in the final section under learning and recommendations.

At the same time, however, the research has highlighted a range of findings and recommendations relating to core drivers which influence the nutritional and health status of select South Central Somali communities, which should be used to strengthen programming. It is worth noting here that the SNS Consortium was established to work in particularly vulnerable, prolonged malnutrition “hotspots” in South Central Somalia, that NCA Study findings are to a degree context specific and that caution should be taken when extrapolating the findings of a particular NCA study more widely.

The NCA has highlighted the negative impact that prolonged conflict, insecurity and vulnerability, as well as select beliefs, child care practices, socio-environmental factors and socio-cultural norms can have on malnutrition. The wider community cannot afford to turn a blind eye to these findings.⁵

Although significant challenges have been faced at every stage in the NCA Research process, with major implications for the time, budget and capacity required, the report includes much of value. The process has been rich in learning for all involved, at every level, as shared in the report. We hope the NCA findings will stimulate interest in better understanding the underlying drivers of Acute Malnutrition in specific SCZ locations and the complex factors that continue to fuel these drivers. The study is intended to catalyze deeper thought, more informed discussion and positive change in key actor efforts to strengthen nutrition and related programming and impact in South Central Somalia contexts.

NCA Causal Pathway per Study - Key

	Outcome
	Most influential immediate cause
	Most influential underlying cause
	2nd most important underlying factor
	Important factor
	Major pathway
	Important (less major) pathway
	Minor pathway
	Core driver
	Important driver
	Most influential basic factor
	2 nd most influential basic factor
	3 rd most influential basic factor
	Basic factor of minor influence

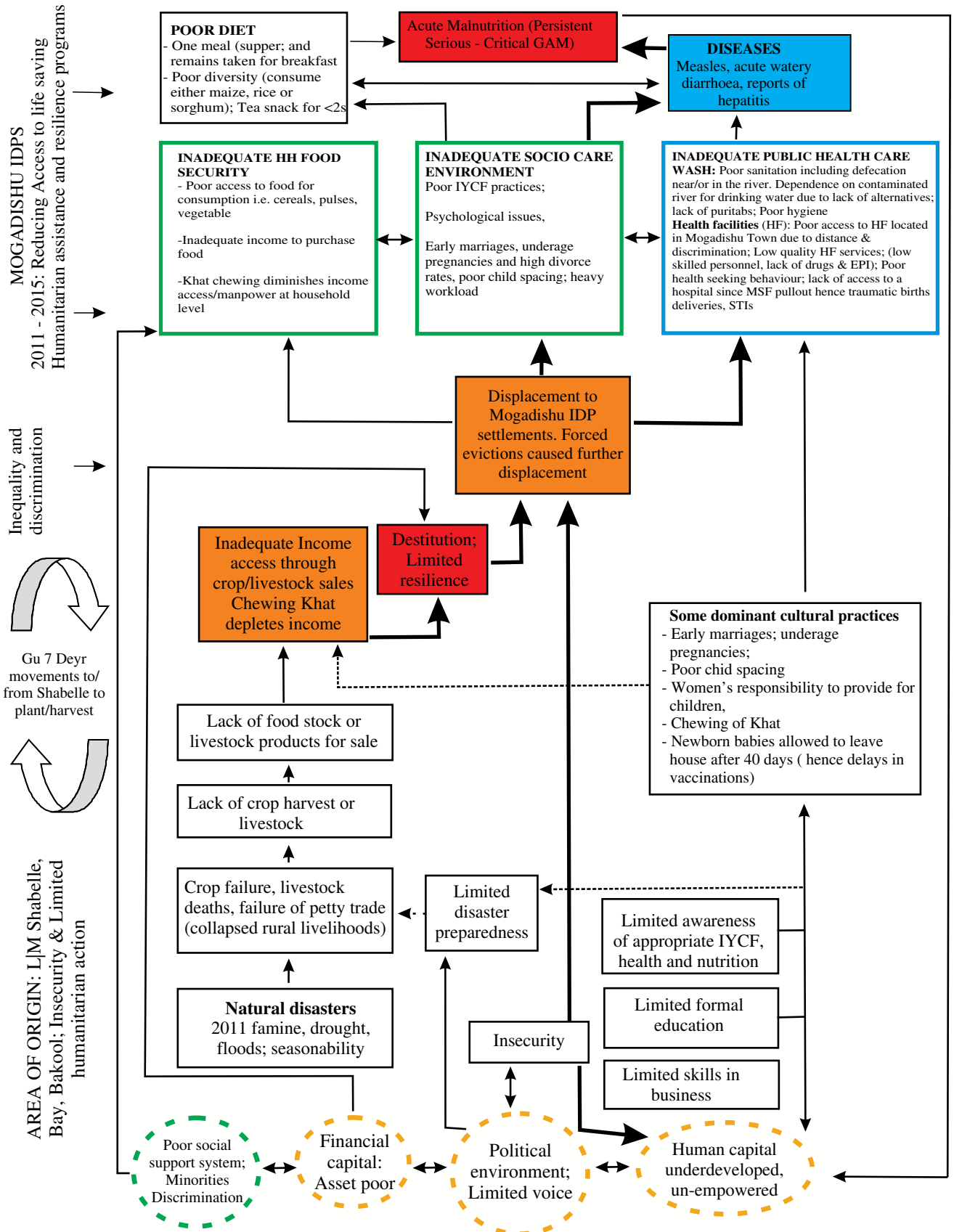
⁴ In retrospect, to help ensure a more open, wider perspective befitting qualitative inquiry and the NCA Study aims, more than the “usual nutrition suspects” should have been involved in a rigorous process to interrogate secondary literature and inform the initial NCA study hypotheses. Given the ambitious NCA timeframe and challenges faced throughout, however, by the time this was realized by the core team it was too late to re-do. The ACF team leading Link NCA studies globally notes that this remains a common weakness of Link NCA Studies and calls for further attention.

⁵ Includes humanitarian and development actors and the government

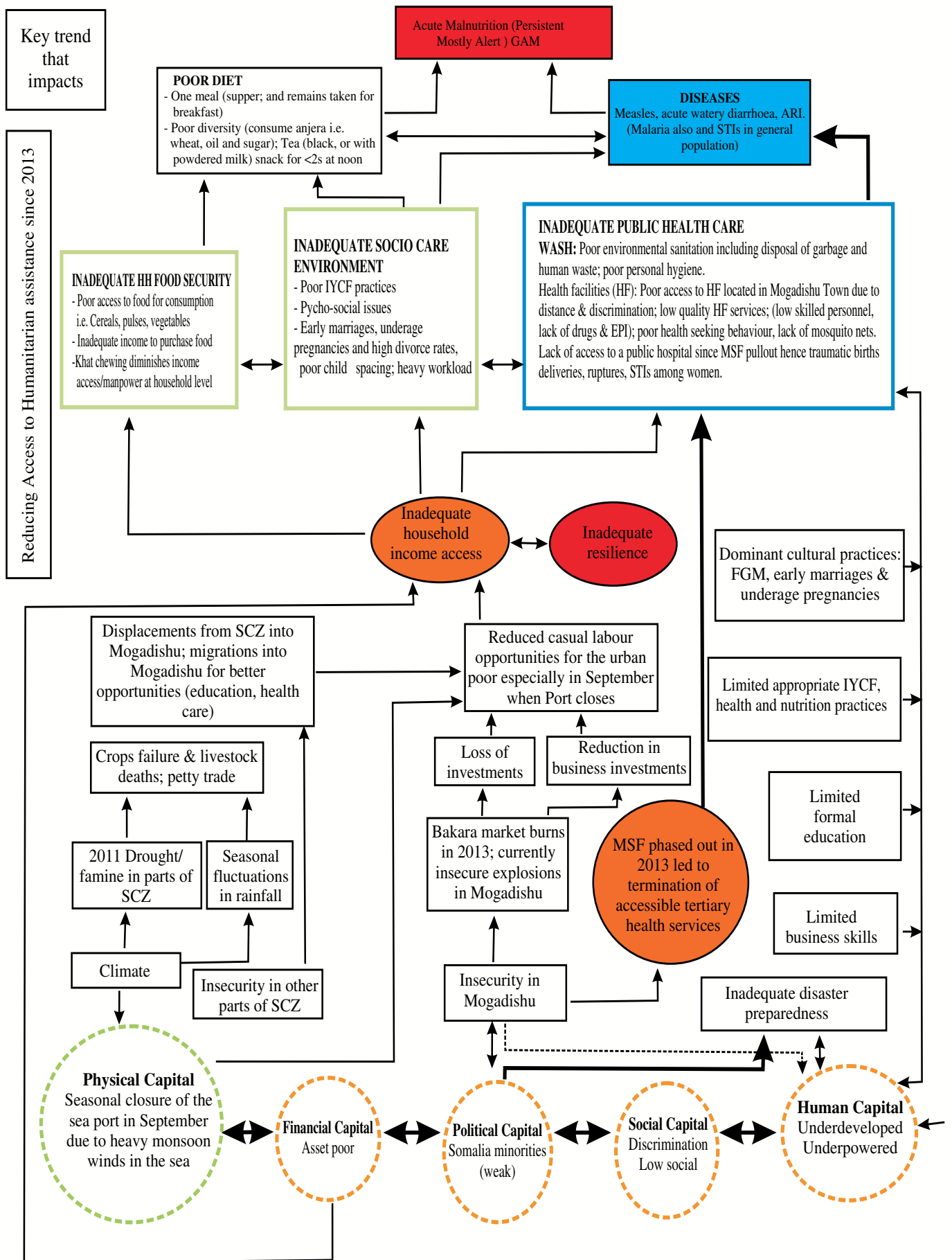
Causal Pathway NCA 1 - Mogadishu IDPs

The link between the situation in areas of IDP origin prior to displacement (basic factors) and in Mogadishu IDP settlements is depicted in the diagram.

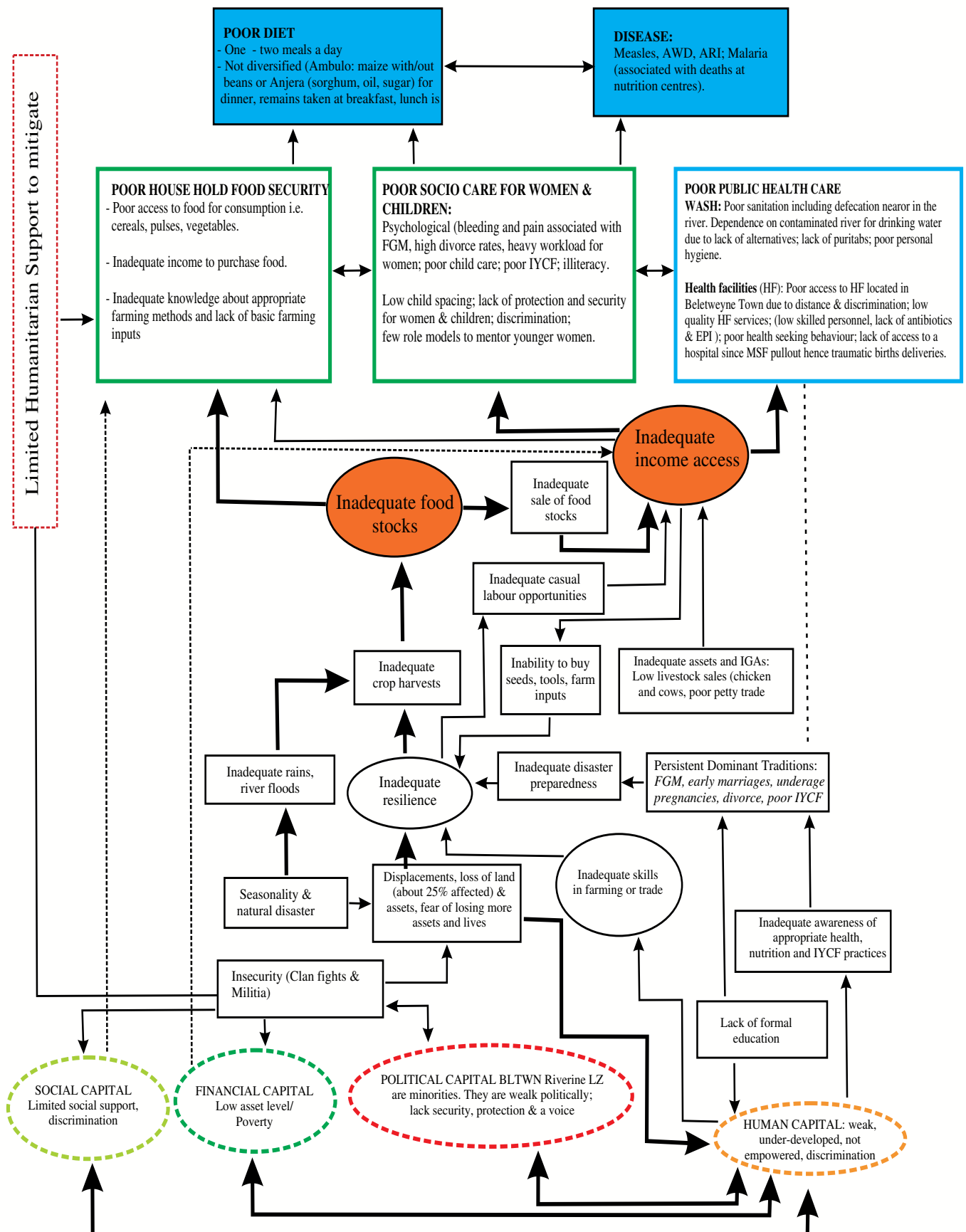
KEY Factors that impact



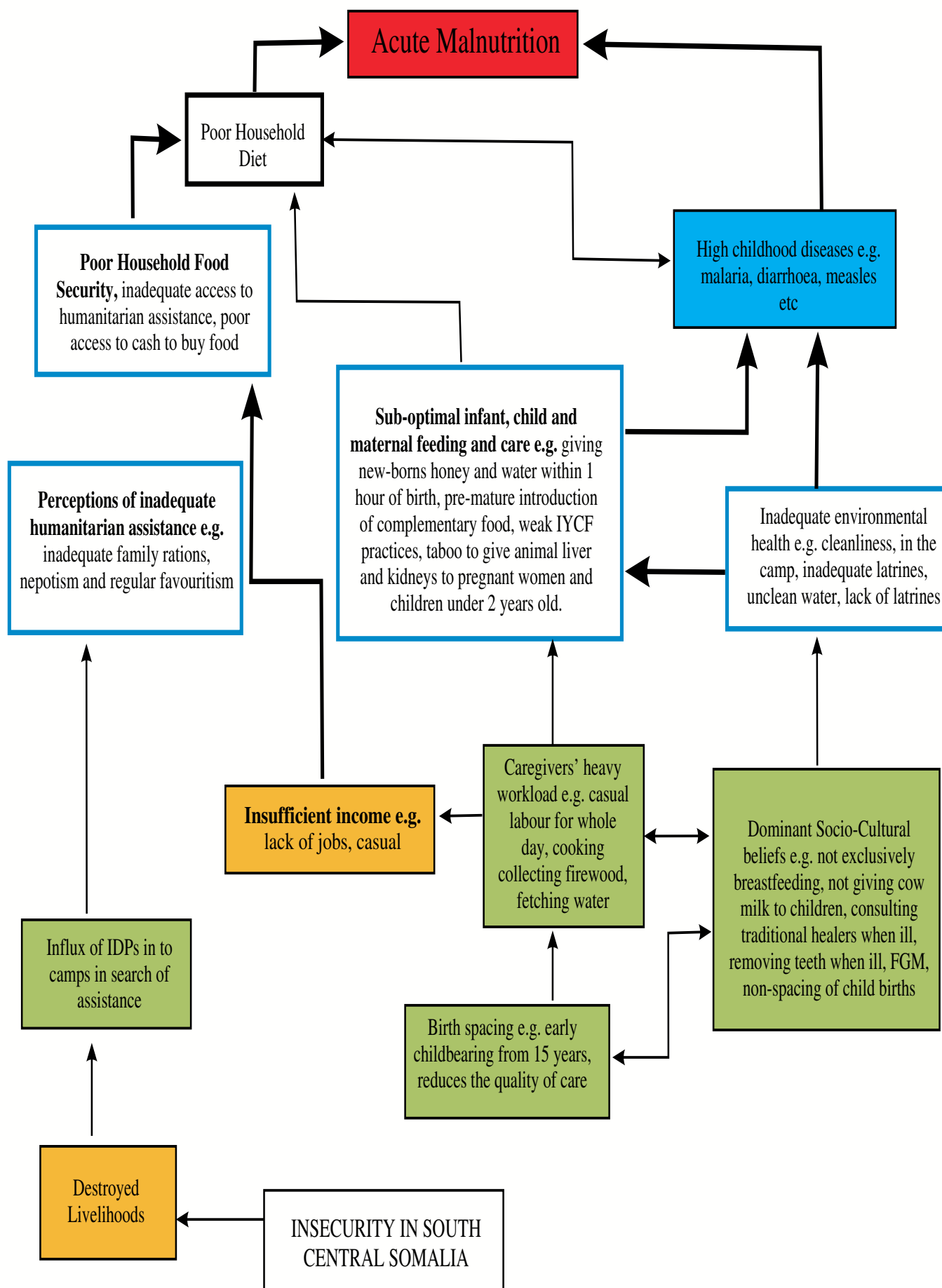
Causal Pathway NCA 2 - Mogadishu Urban (poor wealth group) Communities



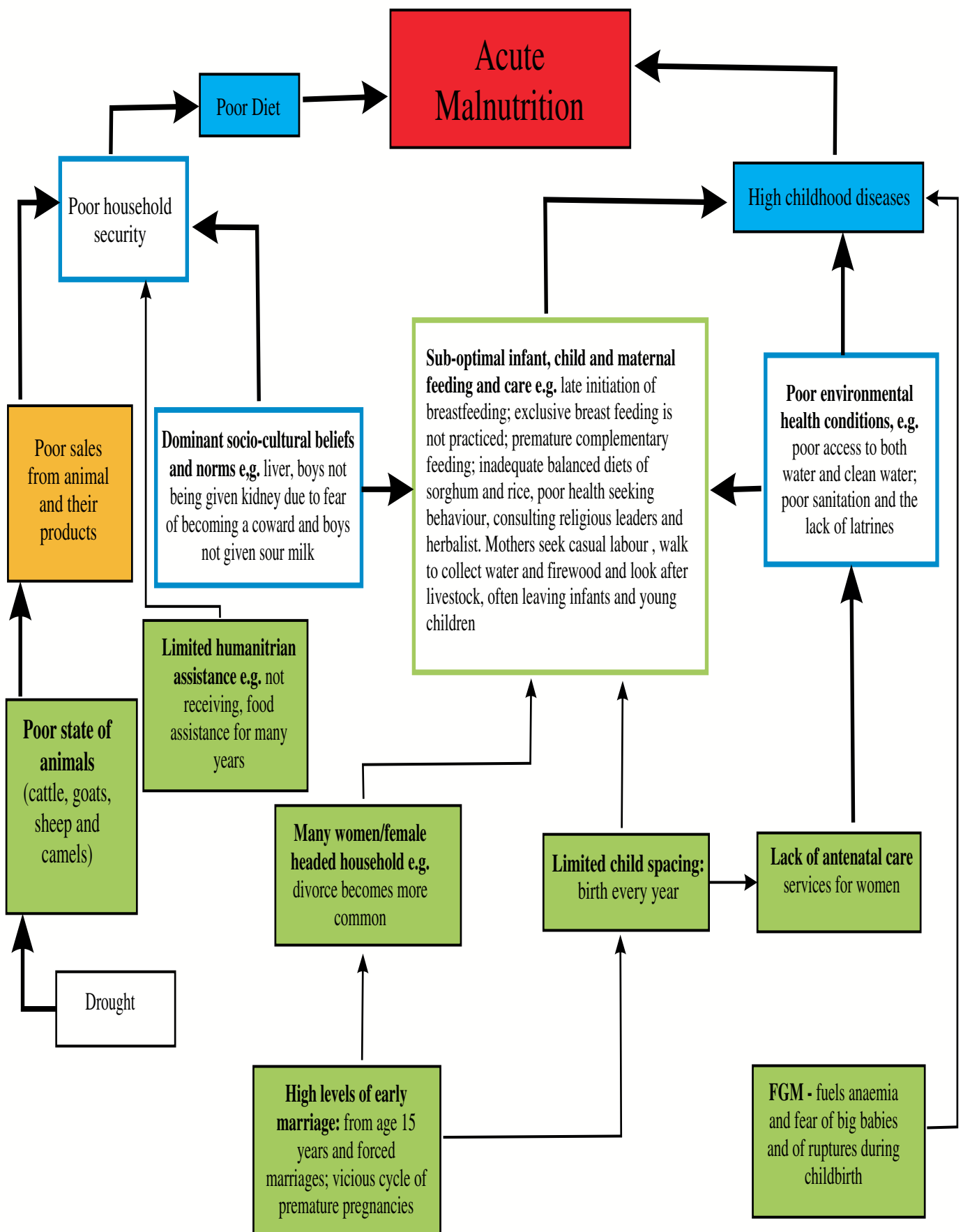
Causal Pathway NCA 3 - Beletweyne Riverine Communities



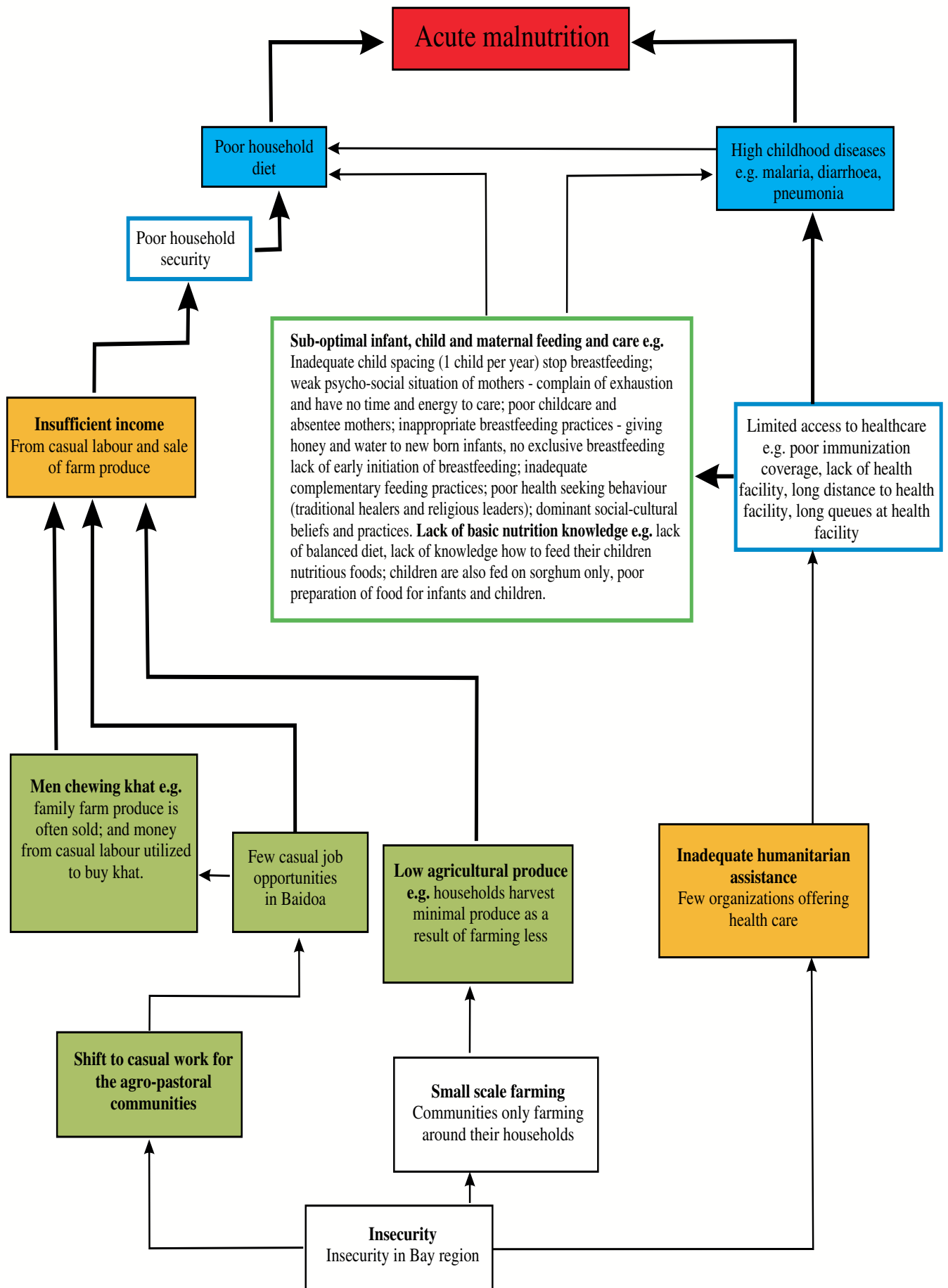
Causal Pathway NCA 4 - Dollow IDP Communities



Causal Pathway NCA 5 – Dollow Pastoral Communities



Causal Pathway NCA 6 – Baidoa Agro-Pastoral Communities



NCA Report Structure

The report is divided into eight main sections, including a separate report for each of the six NCA Studies undertaken in select SNS and WFP locations in South Central Somalia. Sections of relevance to all the six specific NCA studies conducted are found in the Introduction and Conclusion sections (Sections I and VIII respectively). This includes the Link NCA Methodology which the study borrowed from (as much as was possible in the context and time imparted), Research Team Structure, Quality Assurance Mechanisms, Discussion and Conclusions relevant to all six studies. The final section also covers the Challenges faced, Learning and Recommendations for future such studies in similar contexts. Those who wish to focus on specific NCA Reports from particular communities and locations will find the information of wider relevance, as above, in Sections I and VIII) of the report.

SECTION I – INTRODUCTION

This section provides background information on South Central Somalia, outlining key nutrition trends over the past eight years.

It explains the role of the SNS Consortium⁶, the rationale for SNS conducting the NCA in specific South Central Somalia locations, outlines specific study objectives and key NCA research questions.

Methodology

This section outlines the NCA methodology and how the study, despite the difficult context and the immense workload of carrying out 6 qualitative studies at once, strove to draw from the Link NCA methodology. It highlights the study hypotheses and key questions.

The section also reports on how the NCA data was collected, including the make-up of field research teams and support structures, as well as the training of field researchers. It outlines the NCA study timeline from inception to completion.

Quality Assurance Mechanisms

This section highlights the different mechanisms established to help ensure quality throughout the NCA research, as far as particular contexts allowed. These include the NCA Advisory Group (NAG)'s guidance and

oversight role, lead NCA researcher roles, the make-up, roles and responsibilities of field research team members. Quality Assurance steps implemented during each phase of the study are outlined.

SECTIONS II to VII - NCA STUDY FINDINGS (Six studies)

Sections II to VII of the report comprise the six NCA studies conducted in different SCZ communities and locations. Each of these sections reports local NCA findings and, following analysis, highlights conclusions and recommendations relevant to the particular context studied. A visual Causal Pathway diagram is included at the end of each of these sections. This context-specific visual essentially reflects the respective narrative report. Specific NCA Studies are reported in the following order:

Section II – NCA Study - Mogadishu IDP Communities

Section III - NCA Study - Mogadishu Urban Communities

Section IV – NCA Study - Beletweyne Riverine Communities

Section V - NCA Study - Dollow IDP Communities

Section VI – NCA Study - Dollow Pastoral Communities

Section VII – NCA Study - Baidoa Agro-Pastoral Communities

SECTION VIII – NCA Study Findings, Recommendations, Learning and Conclusions

Summary of Key Findings

Key Study Recommendations

Recommendations for Further Research

Key Challenges Experienced

Study Limitations

Lessons Learned

Conclusion

6 A 4-year DFID funded Consortium of key Nutrition actors in South Central Somalia. The Consortium is now mid-way through its lifespan and comprises four INGO Partners with strong reputations in the nutrition field: Save the Children International (SCI, Lead Agency), ACF Somalia, Concern Worldwide (CWW) Somalia and Oxfam Somalia.

Introduction



1

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Background and Study Rationale

Acute malnutrition in South Central Somalia has remained notably high for too long, with GAM rates consistently above 15% for over a decade. During this period Somalia has been hit by the worst famines in the world, e.g. in 2011 when malnutrition rates hit above 30% GAM in most areas of South Central Somalia. Widespread and prolonged insecurity resulting from historical tensions and, in recent years, the growth of Al Shabaab in SCZ, has fueled unstable government since the early 1990s. Cycles of drought and prolonged insecurity have combined to worsen the situation as livelihoods have been shattered across the country. As a result, the country hosts many Internally Displaced Persons (IDPs) with a minimum choice of livelihoods to sustain their families. Despite significant humanitarian interventions, the nutrition status of many SC Somalia communities remains alarmingly high, due to multiple confounding factors.

Recently there have been promising signs of progress and relative stability in parts of South Central Somalia, although many communities remain too vulnerable to poor health, nutrition and well-being. This scenario has fueled keen interest among key stakeholders to better and more deeply understand the main causes of malnutrition and use this understanding to strengthen programming and impact.

Consequently, between March and November 2015, the SNS Consortium¹ undertook a Nutrition Causal Analysis study in four of the fourteen nutritional hotspots of SCZ, in Hiran, Bay and Gedo Regions, to research the underlying causes of acute malnutrition in these areas. The study is

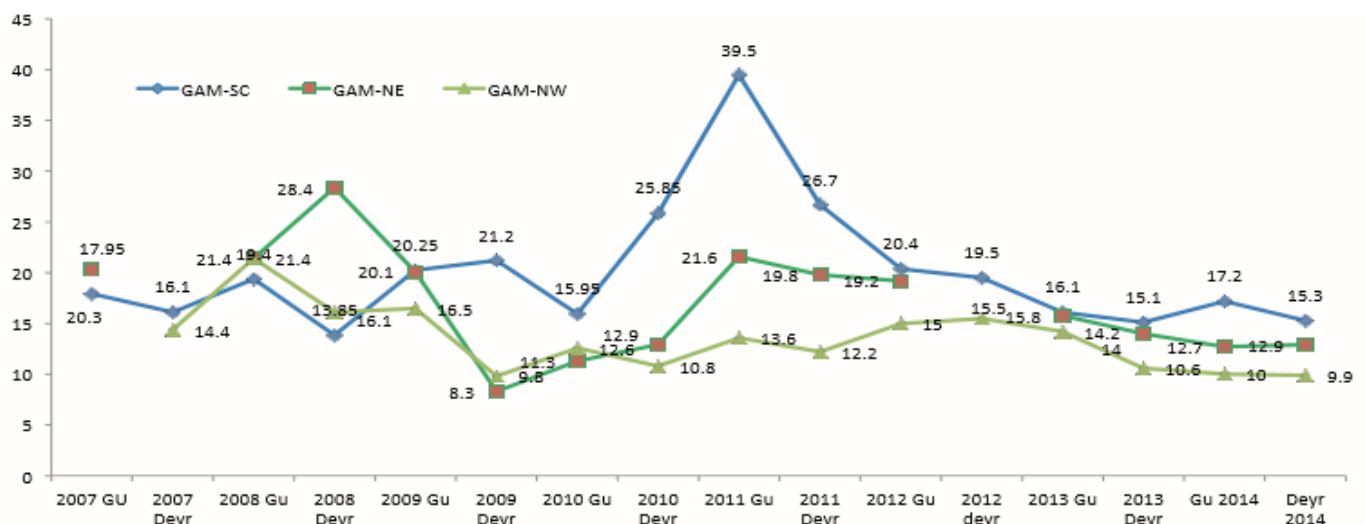
based on the Link NCA methodology, although due to the study contexts, scope, available research capacity and time, the researchers had to extensively adapt the Link ACF approach. In Banadir, Mogadishu Internally Displaced Person settlements (IDPs) were included due to their sustained worrying nutritional levels, despite the strong presence of nutrition actors. Mogadishu Urban Livelihood Zone communities were included as a relatively positive case, to highlight factors that influence their stronger nutritional status.

A Nutrition Causal Analysis (NCA) study investigates and presents a 'multi-sectoral' overview of the factors which contribute to nutritional status within a given community. It can involve different combinations of qualitative and quantitative research, as discussed on page 23 below. This study focused on in-depth qualitative research, to complement existing (if incomplete) quantitative studies conducted in SC Somalia locations. An NCA first seeks to establish the relative importance, or perceived weight, of factors that contribute to acute malnutrition and influence the nutritional status of particular communities. It also investigates the relationships between these factors. Given the SNS Consortium's aims and mandate in SCZ, the Consortium decided to conduct a qualitative Nutrition Causal Analysis (NCA) study in select areas of operation in South Central Somalia. The involvement of WFP added Gedo communities (Dollow IDPs and Pastoralists) to the study.

Nutrition Trends

Nutrition studies conducted in Somalia since 2007 indicate persistent Critical levels of Global Acute Malnutrition (GAM) in both the Gu and Deyr Seasons, but there is usually a rise of malnutrition rates during the Gu season in South Central Somalia (Figure 1).

Figure 1: GAM Trends in Different Regions in Somalia, 2007-2014 (UN-FAO/FSNAU 2015)

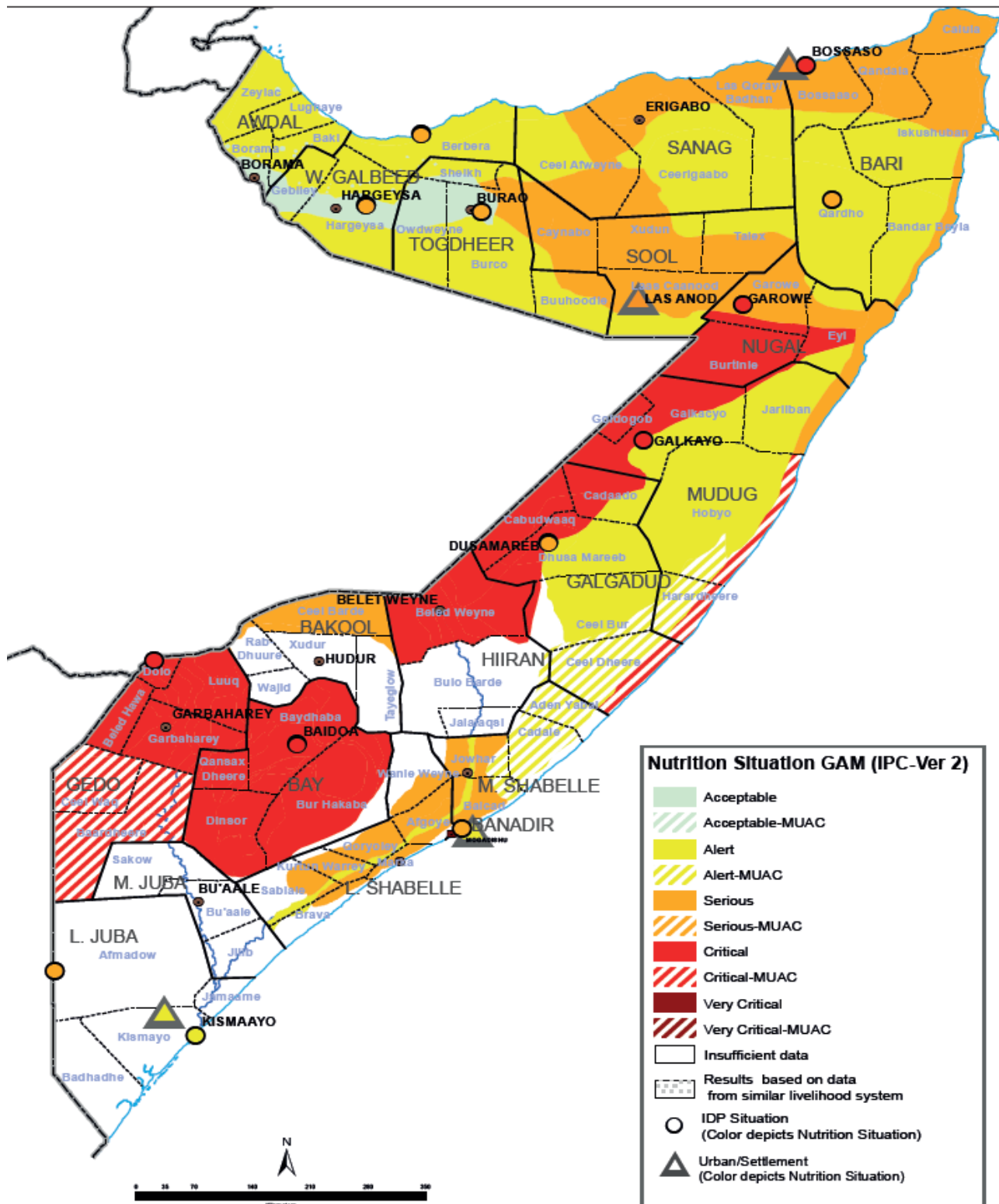


1 With support from WFP

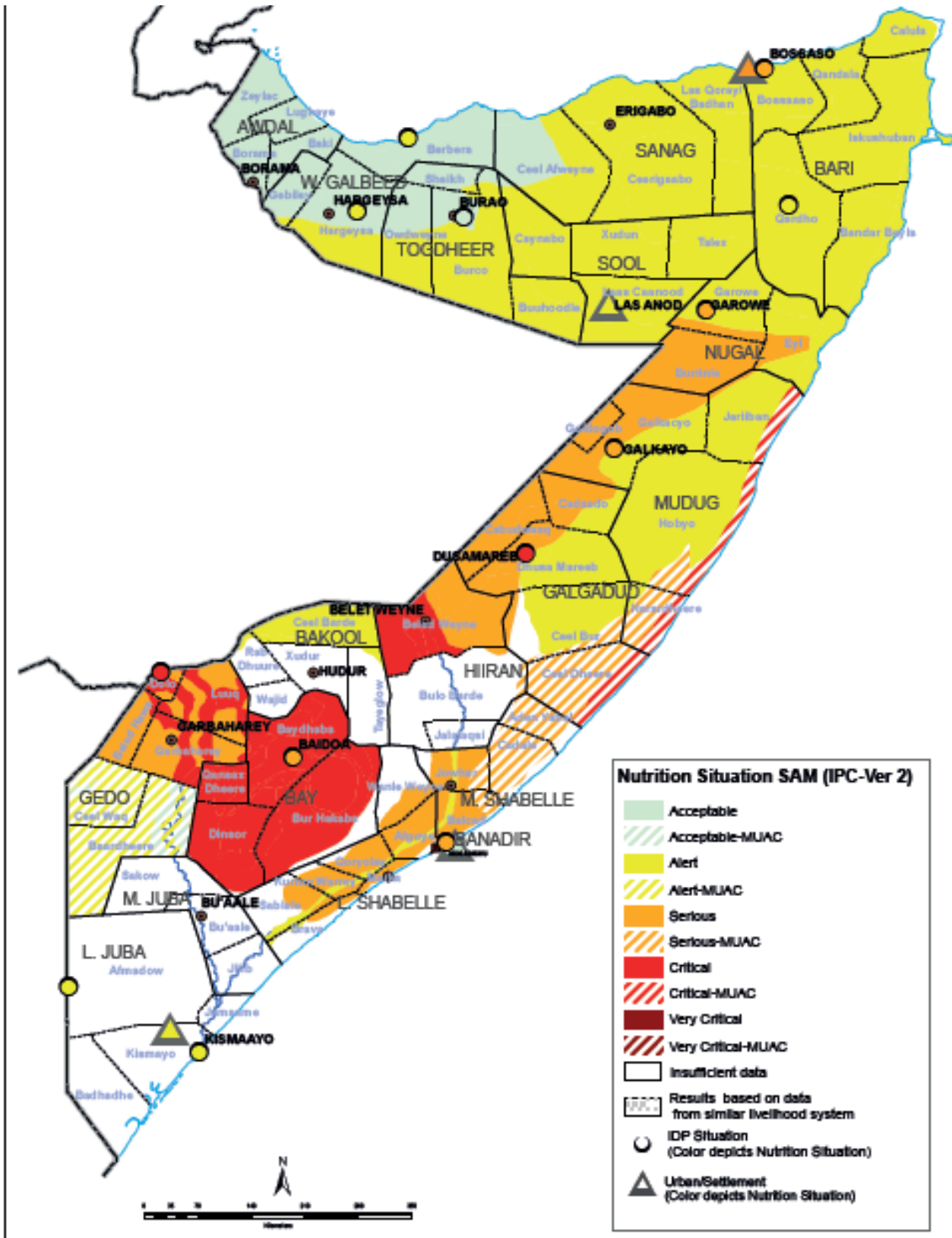
UNFAO/ FSNAU Deyr 2014/15 studies identified 14 nutritional hotspots in Somalia with persistent Critical to Very Critical GAM or SAM levels (See maps below).

The NCA research responds to the UNFAO/ FSNAU report (March 2015, post Deyr) which recommended further analysis of the main causes of acute malnutrition in the 14 hotspots of SCZ, to establish key underlying drivers.

Map 1: Somalia Estimated Nutrition Situation (GAM), Jan 2015



Map 2: Somalia Estimated Nutrition Situation (SAM), Jan 2015



NCA Study Aim, Purpose and Objectives

Aim: To provide a more nuanced understanding of the causes of acute malnutrition and their causal pathways in particular South Central Somalia locations, as perceived by community members themselves.

Purpose: To catalyse more informed discussion and programming decisions amongst key SCZ actors, towards strengthening nutrition sensitive programming and impact in select South Central Somalia regions. The SNS Consortium, WFP, MOH, UNICEF and other key actors are well placed to use the recommendations. The purpose includes to share learning on the NCA process and findings relevant to nutrition and related actors and researchers in Somalia.

Specific Objectives

- To identify the main drivers and causes of acute malnutrition in order to inform strategy and nutrition sensitive programming at local and, where relevant, regional levels.
- To strengthen the evidence base, support advocacy and catalyze positive shifts in programming, towards more effectively tackling key causes of acute malnutrition in South Central Somalia.

Key Research Questions

- What factors affect the prevalence and severity of malnutrition in particular South Central Somalia regions: Hiran (Riverine), Bay (Agro-pastoral), Banadir (Urban and IDP settlements) and Gedo (IDPs and Pastoral)?
- What are the causal 'pathways of malnourishment' by which children become wasted? What underlying factors have a significant impact?
- How have historical trends and seasonality affected nutritional status amongst children under five years of age in select SCZ locations and livelihood zones?
- What are the main underlying drivers of malnutrition in the communities studied?
- Which underlying drivers and pathways are most likely to be modifiable by stakeholders in a given context?
- What priority actions are recommended to respond effectively to the findings?

² This has proved to be a huge issue and raised significant challenges throughout, despite notable efforts taken to ensure the team recruited the best local researchers available, i.e. those with at least a degree of research experience, known to the lead researchers, and who could access particular NCA community locations relatively safely.

³ See www.linknca.org/ ACF's comprehensive website with a range of resources, updates and NCA Study reports

⁴ ACF recommends a minimum 4 month period for one in-depth Link NCA Study. See www.linknca.org

⁵ i.e. at the start of this study.

The link NCA Study Methodology Adapted

Limited shared understanding of what a "Nutrition Causal Analysis" (NCA) involves remains widely evident, accompanied by a notable lack of common language or methodology. In this context, ACF's "Link NCA" approach stands out as an exception and was used to guide the SNS study. Given the extreme insecurity typical to many SNS locations in SCZ (including where the NCA study took place) which challenge any research, in particular in-depth research to which a degree of trust and legitimacy amongst communities being studied is fundamental, the Link NCA methodology had to be adapted more than originally envisaged. This challenge was not helped by the lack of qualitative research experience and low capacity at all levels in the research teams concerned.² ACF has led the global development of the Link NCA approach and produced an impressive array of supporting resources and practical guides for international use and adaptation.³

A Link NCA study can be undertaken in three main ways depending on purpose and context, incorporating different combinations of qualitative and quantitative research. The aims and limitations of this study led to the decision to conduct a qualitative inquiry alone, informed also by the notable lack of nutrition-related qualitative research in South Central Somalia locations to date. While not ideal, this is the maximum that the available time, budget and research capacity allowed for. Conducting six NCA studies within a limited time period, in such insecure and challenging contexts, is itself commendable.⁴

Prior to the NCA, UNFAO/ FSNAU had conducted a quantitative SMART nutrition survey across SCZ during the Deyr 2014/15 season, and was due to repeat the same in the Gu season (April-June 2015) while the NCA was underway⁵. To complement this and other quantitative research, the SNS NCA Study focused on qualitative inquiry to provide more in-depth, context-specific information valuable to local programming in highly vulnerable areas. While major nutrition surveys (of varying quality) have dominated the nutrition sector in CSZ for many years⁶, the dearth of in-depth, qualitative information and research is alarming⁷. This remains true despite the potential value of such contextualized information to many nutrition-related challenges and programmes, especially prevention and IYCF initiatives, which are weak across SC Somalia. Related programmes need urgently to be informed by a deeper and more nuanced understanding of factors impacting on nutrition locally. As a four year programme with teams active in NCA study locations⁸, SNS offers a concrete opportunity to undertake and use

the study findings as feasible, and to share key study findings and recommendations more widely, in the interest of strengthening Somali communities.

To identify and assess the multiple causes of malnutrition and develop causal 'pathways of malnourishment' by which certain children in specific population groups and communities become malnourished, the following methods were used:

- Select secondary data (mainly FSNAU, SNS studies and humanitarian reports by UN OCHA and the Clusters' 4W Matrices) was rapidly reviewed to inform the development of initial hypotheses on underlying drivers, to guide the study and the development of NCA research tools⁹.
- Key Informant Interviews (KIIs), Focus Group Discussions (FGDs) and an interactive analytical process based on consultations with key stakeholders formed the backbone of the NCA study.
- Researcher field observations, numerous debrief sessions and the triangulation of emerging NCA data with available expertise and secondary data all enriched the process¹⁰.

Consequently, in the six select SCZ locations, the qualitative inquiry strove to document local definitions and understandings of malnutrition; to explore local perceptions of the wide-ranging causes of malnutrition; to identify relevant seasonal and historical trends as perceived by study respondents and to understand how the communities concerned prioritize perceived underlying drivers of acute malnutrition. A series of FGDs and KIIs helped identify key underlying drivers in each NCA study location. Analysis has highlighted the factors modifiable by different stakeholders, to inform stronger, more suitable responses.

Two external researchers led the study, with extensive, active support from the NCA Advisory Group. The NCA planning phase largely took place in March and April 2015. In retrospect, this should have involved a critical review of wider (non-nutrition specific) literature and several key informant interviews, to ensure the development of a specific local, context-driven hypothesis per study location. In the event, the rapidly completed review of secondary data to formulate hypotheses, key underlying drivers and causal pathways, to guide the design of study guides and tools, remained limited. Given the ambitious NCA time frame and significant challenges anticipated in the SC Somalia contexts involved, a third lead researcher was recruited in May 2015. She supported the core team

to train and supervise the six NCA field research teams (working simultaneously), helped assure quality during data collection by reviewing manuscripts on an on-going basis and guiding teams accordingly, and supported research team debrief sessions in the field. Her insights have informed the final report.

At the start of most NCA studies, a key stakeholder NCA briefing session took place in respective locations¹¹ (See Appendices 1-3). This was followed by a several day workshop to train the NCA field research teams in Mogadishu (for Mogadishu and Beletwayne research teams) and, subsequently, in Dollow (for the Dollow and Baidoa research teams). Following the initial NCA workshop in Mogadishu, the lead consultants split themselves between Mogadishu and Dollow locations, to oversee their respective studies and research teams for the duration of the field research.

The Mogadishu based lead researcher oversaw the NCA data collection for three studies: Mogadishu IDPs, Mogadishu Urban and Beletwayne Riverine communities, lasting 28 days in total. The other two lead researchers travelled to Dollow from where they held the key stakeholder briefing session and four-day training workshop. Subsequent NCA field research among Dollow IDPs, Dollow Pastoralists and Baidoa Agro-Pastoral communities lasted for 24 days. Across the six studies a similar methodology and research guides were used, with tools adapted to context as appropriate. See Appendices 9a-c for key study tools used.

While data collection was ongoing, thematic analysis of transcripts began in field locations where the research supervisors and key team members could explain emerging findings, deepen analysis and, if necessary, re-write some transcripts. A few further interviews were subsequently done. Through a series of NCA debrief meetings in Somalia and later in Nairobi, preliminary and further analysis was undertaken, guided by Link NCA material.

Study Factors hypothesized to influence Acute Malnutrition in specific SCZ study locations

The widely known core drivers of malnutrition in identified study areas in SC Somalia include:

- Limited access to water and to clean water, resulting

5 Particularly by the FSNAU

7 At the same time there has been a lot of anthropological/ geographical/ historical research conducted in South Central Somalia over the years, with some exceptions and notable gaps since the 1990s and civil war. To date, however, this existing knowledge is little known and used by humanitarian and development stakeholders to inform their responses.

8 With the exception of those in Gedo, where WFP works through partners

9 A key learning point later in the process has been the importance of investing adequate time and expertise at this critical stage, to ensure that well informed and considered local hypotheses are developed. To achieve this, conscious effort should be made to ensure "out of the box" thinking by involving wider groups of key stakeholders in the development of NCA study hypotheses, to avoid the risk of limiting both the study itself and the breadth and depth of its potential findings.

10 Limited time, budget and qualitative research capacity all impacted on the research. At the same time, SNS managers and advisers made a significant effort to interrogate the data, deepen analysis and cross check initial findings.

11 With two exceptions, for reasons discussed under 'Challenges' in the final Section

from climate and seasonality. Particularly relevant to Dollow pastoralists, Baidoa agro-pastoralists and Beletwayne Riverine communities.

- Hot and dry season - If prolonged and expected rains fail for two rainy seasons in a row, drought results. Dry weather conditions impact negatively on milk and cereal access, thereby reducing household food security. Impact is pronounced across all rural livelihoods, in particular pastoralists, agro-pastoralists and pure farmers (FSNAU 2015).
- Wet Season - If prolonged results in floods. This leads to the contamination of water points and inundation of fields and food stores, reducing food access especially among agro-pastoralists and riverine communities. It also fuels water-borne diseases like malaria and diarrhoea, heightening vulnerability to malnutrition.
- Political/ Security situation - South Central Somalia remains highly insecure and inaccessible to key humanitarian actors, outside a few urban centres. Insecurity is widespread and varies in its intensity and impact. In general, it serves to heighten vulnerability. In the NCA study, local politics and security situations affected in particular the Baidoa, Beletwayne and Mogadishu studies.
- The collapse of the central government in the early 1990s has meant decades of chronic anarchy and the rise and dominance of powerful militias, especially Al Shabaab. This has fueled extensive insecurity and population movements, alongside weakened livelihoods and resilience. Persistent insecurity continues to hinder humanitarian support which would help mitigate the situation in the short term (FSNAU, 2015).
- Limited Humanitarian Assistance, which remains inaccessible to many vulnerable groups, in particular to under-served rural communities and IDPs, as seen in the NCA study.
- In many highly insecure areas of SC Somalia, including those where the NCA study took place, humanitarian assistance remains limited at best. As well, IDPs in urban settlements generally comprise destitute families who have lost their rural livelihoods as a result of climate or security-related reasons. Poor access to humanitarian assistance and/or income is the main outstanding cause of acute malnutrition among IDPs (UNHCR, 2013), not helped by the dominance of stand-alone projects and minimal nutrition sensitive programming.
- Limited Access to Income in highly vulnerable

communities, including Mogadishu and Dollow IDPs, as well as others where insecurity and significant population movement is fueling growing dependence on a cash economy, e.g. in the Baidoa and Dollow pastoral communities studied.

In urban areas like Mogadishu and Dollow, where commodities or services are mainly acquired through purchase, poor access to household income remains a core driver of acute malnutrition (FSNAU, 2015).

- Inadequate Care Practices - In South Central Somalia, with a few exceptions, the widespread lack of adequate basic health, nutrition, WASH and other facilities, which remain even less accessible to vulnerable groups within communities, has a major impact on health and nutrition. Some dominant socio-cultural beliefs and practices, especially relating to pre-mature marriage ages and child-bearing for girls in some communities, as well as to infant and young child feeding across SC Somalia, combine to weaken nutrition amongst girls, women and children in particular. They also make for poor socio-care environments for girls, women, infants and children, which negatively impact on IYCF and family nutritional status.

Other, related key factors hypothesized to influence Acute Malnutrition include:

- High rates of childhood illness in children under 5
- Sub-optimal infant, child and maternal feeding and care practices
- Weak environmental health conditions
- Poor dietary diversity
- High rates of non-immunized children, against measles in particular
- The psycho-social status of many caregivers (girls and women)
- Limited access to adequate health and nutrition services to treat malnutrition
- Some dominant socio-cultural practices and beliefs
- Prolonged, volatile political situations and civil unrest
- Low levels of formal education, especially among caregivers
- Inadequate household food security

NCA Study Populations

NCA study areas were selected based on the criteria below:

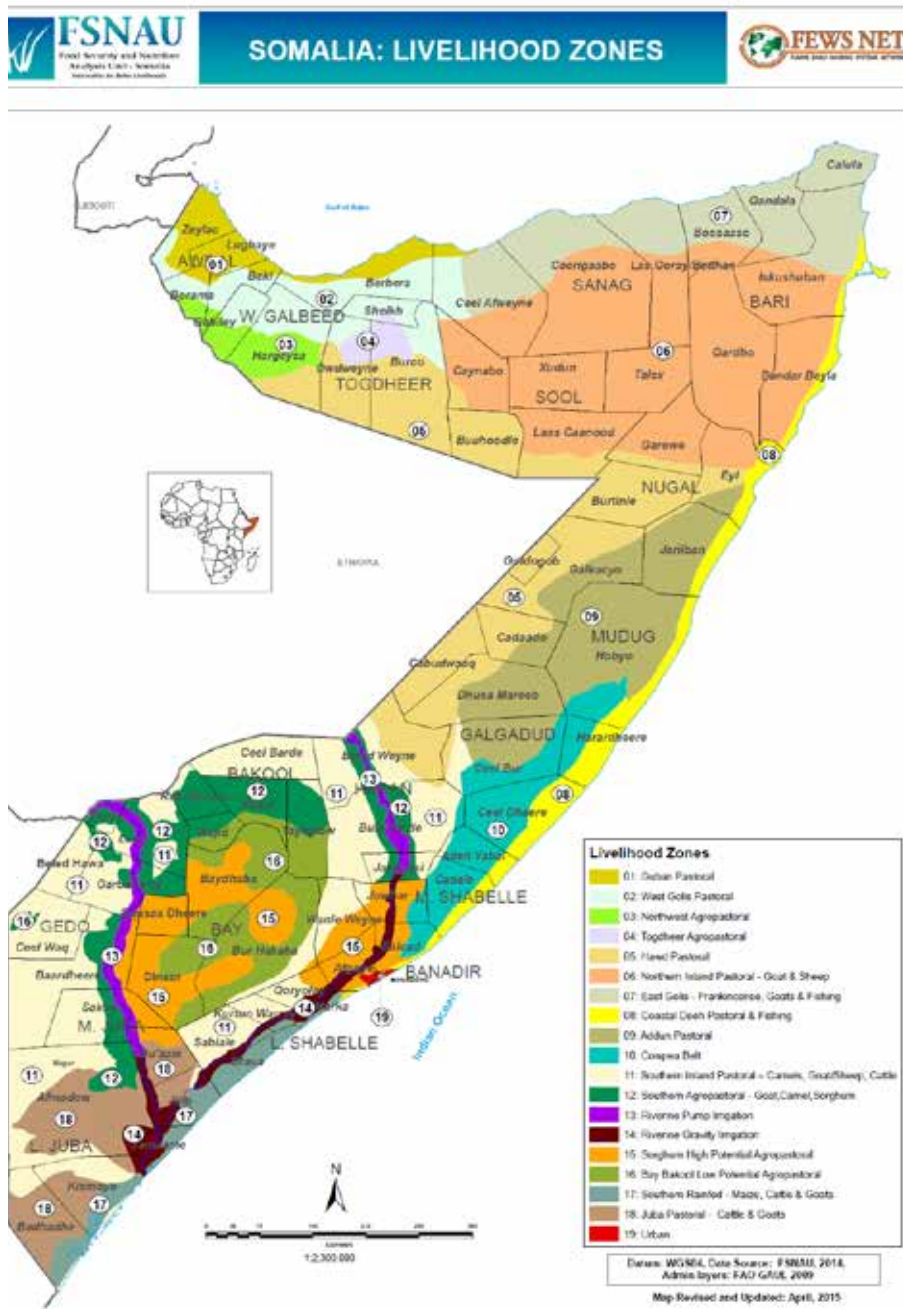
- A nutritional hotspot as identified through UNFAO/FSNAU (March 2015) post Deyr 2014/15 findings, with the exception of Banadir communities.

¹²The potential to quickly assess this varied across study locations, inevitably influenced by wider issues of insecurity, potential access, and having the ear of local gatekeepers; official local authorities or others, depending on specific context. In Dollow, for example, following official permission granted by the Local Authority, NCA Coordinators then visited proposed community gate-keepers in the field to gain their consent for the study. In Mogadishu, SNS partners advised against including a particular district in the study due to local sensitivities. Although in some NCA study contexts the issue of expected financial payment for granting safe access arose, following subsequent negotiation with local leaders no money was paid in any instance, as far as the lead researchers are aware.

- SNS partner presence (Banadir, Hiran, Bay and Bakool) or WFP presence (Gedo). As well as facilitating research team access and legitimacy, SNS or WFP partner presence heightens the potential to use the NCA study findings.
- Different population groups represented in SCZ, i.e. IDPs, Urban and Rural communities, including pastoralists, agro-pastoralists and riverine farmers.
- Relative security and accessibility to local qualitative research teams, including what prevailing security situations and road access allowed in the time available.
- Apparent willingness of the community to

- participate¹².
- Last minute decisions made by NCA Research Supervisors in situ at the time, based on what they were told or believed to be feasible (or not) given the prevailing security situation, working under great time pressure in politically sensitive and highly insecure contexts.¹³

Based on the above criteria, population groups in South Central Zone selected for the NCA study included: Mogadishu IDP settlements; Beletweyne Riverine Livelihood Zone communities; Baidoa Agro-pastoral Livelihood Zone communities; Elberde Pastoral Livelihood Zone communities (later replaced with Dollow Pastoralists)¹⁴, Dollow Agro-pastoral Livelihood



13 Particularly pertinent to the Baidoa NCA Study and the fact that the planned NCA in Elberde did not take place as intended.

14 This decision was taken by field team supervisors in the field at the time, based on the then current security information available, which apparently made it impossible for the trained Field Coordinator to oversee the intended NCA research in Elberde.

Table 1: Final NCA Study Villages

Study area	Select Villages	SNS Partner/ WFP	
Beletweyne Riverine Livelihood Zone	1	Hiran Village (replaced Bacad on day 2 which proved inaccessible)	SCI
	2	Lebow	SCI
	3	Shabeellow	Oxfam
	4	GambariLawe	Oxfam
Mogadishu Urban Livelihood Zone	1	Tima Ade (Wadajir District)	Concern
	2	Obosibo Halane (Wadajir District)	Concern
	3	Yusuf Alkaunei (Bondeere District)	Concern
	4	Bula Makarey (Bondeere District)	Concern
Mogadishu IDP Settlements	1	Tarbuunka camp – Hodan District	ACF
	2	Qoryooleeyl IDPs in Tabeelaha area	ACF
	3	Dalabeey KM 12	ACF
	4	Libanto Qoryooley KM 12	ACF
Dollow Pastoral Livelihood Zone	1	Korowshiidle	WFP
	2	Gubat	WFP
	3	Abdilooxoow	WFP
	4	Laanbuuleey	WFP
Dollow IDP settlements	1	Kabasa 1	WFP
	2	Kabasa 2	WFP
	3	Qaxoti degan	WFP
	4	Qaxoti cusub	WFP
Baidoa Agro-Pastoral Livelihood Zone	1		
	2	Buulo Jadid	

Some last minute NCA research location decisions were made by respective study supervisors in particular locations. Reasons officially shared include heightened insecurity which (it was claimed) made it too risky for research teams to access the intended communities and, therefore, to undertake the study. These decisions subsequently raised serious questions amongst SNS teams when they came to know about them later. Suffice it to say that further investigation has since revealed that local NGO/ clan politics (most NGOs in SC Somalia are allied to a particular clan), combined with related security concerns, led to these last minute, unforeseen changes to initially proposed NCA study sites. The following, unanticipated changes were made in situ by respective research supervisors and coordinators:

1. In Beletweyne District, Bacad village was replaced by Hiran village on the second day of data collection, due to lack of access resulting from sudden and unexpected militia presence.

2. In Dollow, the list of villages initially drawn up between the lead researchers and SNS Mogadishu team was amended after further discussion. Apparently the original list did not reach the field teams in time and the final study villages selected for Dollow were agreed during the key stakeholders meeting.

3. Elberde was unexpectedly dropped from the study for apparent security reasons. It was replaced at the last minute by Dollow pastoralists.

4. Initial Baidoa NCA villages were proposed following discussion between the local SNS Partner organization and the lead researchers. At the time, however, the NCA research coordinator and team in situ decided to conduct the study in different villages, unbeknown to those not present. It appears that local political and “security” concerns played their part and the lack of transparency surrounding factors that influenced the final selection of study villages in Baidoa has been notable. As well, unbeknown to the lead researchers, the anticipated Baidoa key stakeholders NCA briefing session did not take place. Thus the Baidoa study was particularly influenced by local politics, which closely link to issues of security and access in many SC Somalia locations. These same factors impact on all research and programming in such volatile areas of SC Somalia, whether or not outsiders are aware of, or acknowledge them.

5. The NCA study planned for Dollow agro-pastoralists was replaced by the Dollow IDP study, following strong recommendations by key Dollow stakeholders during the NCA briefing session (see Appendix 3). They expressed alarm at the continuing high rates of acute malnutrition amongst Dollow IDPs despite significant humanitarian interventions and the urgent need to better understand this situation. As Dollow agro-pastoral livelihood communities remain minor, the research team was strongly advised to focus on Dollow IDP communities instead.

NCA Research Team Structure

Each study was overseen and led by a lead NCA researcher. At field level, they were assisted by the field coordinator who supervised the simultaneous collection of data by two research teams. Each field research team comprised of four members including an FGD/ KII facilitator or interviewer, a transcriber, a supervisor and a translator/ transcriber, each with different roles and responsibilities (See Appendix 4). It should be noted that the layers of researchers in each field research team, inevitably increased the risk of “losing” data through limited control over the depth and quality of (i) facilitation and probing in FGDs and KIIs; (ii) of transcribing and (iii) translating accurately and comprehensively. These challenges are discussed in the final section under learning and recommendations.

See the ‘NCA Research Team and Management Structure’ organogram on the next page and Appendix 4 for detail on specific team member roles and responsibilities.

NCA Research stages per study location

Round 1 – NCA research training in Mogadishu, for Banadir and Beletweyne teams

In Mogadishu, the NCA Banadir and Beletweyne research teams participated in a six day NCA preparation and training workshop, including one NCA test-run day and a post-fieldwork debrief day¹⁵. The Dollow and Baidoa research teams experienced similar over four days in Dollow. See Appendix 6 for the NCA Research Team Training Schedule followed in both locations.

NCA Research in Banadir (May 13 – 28, 2015)

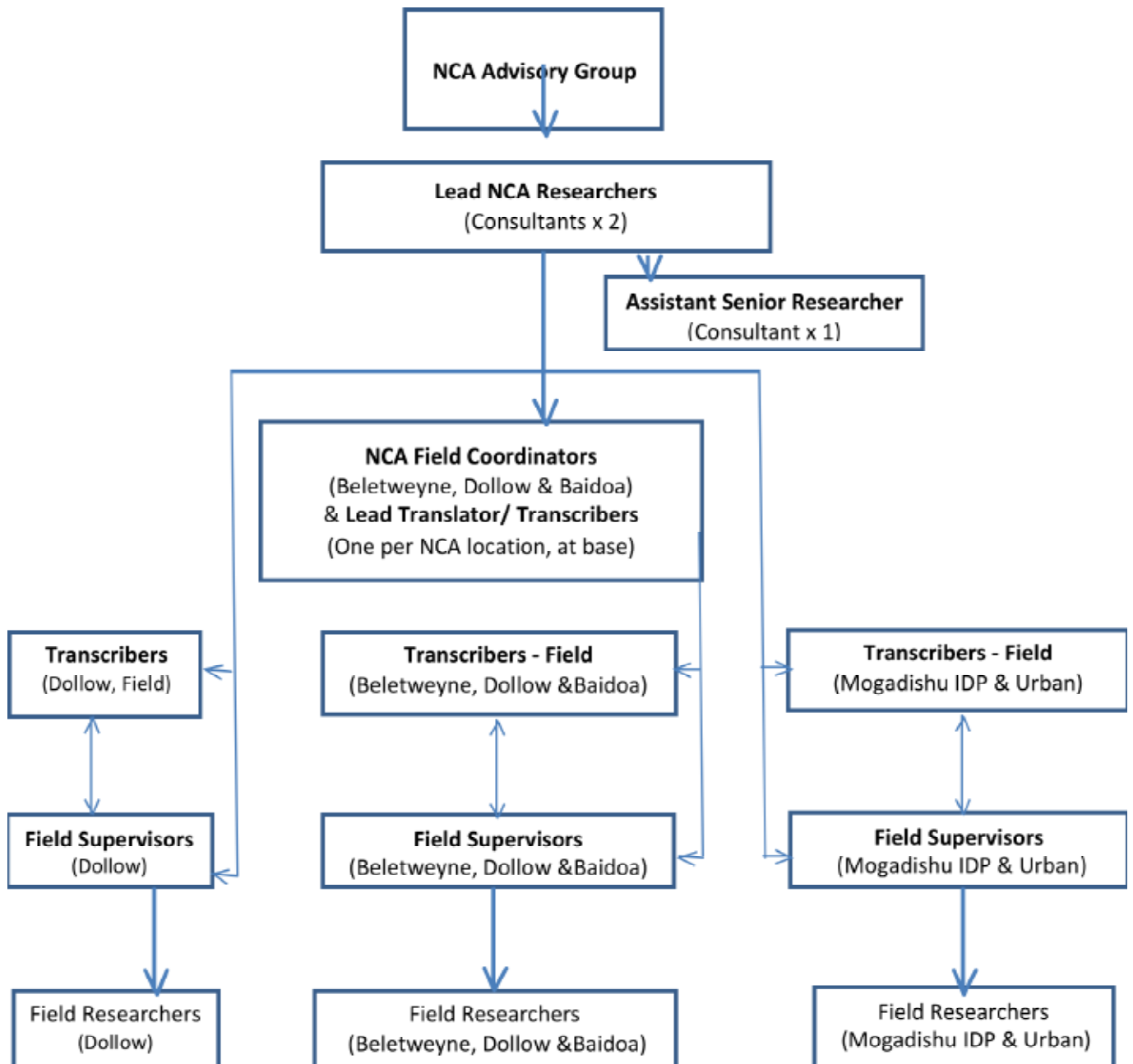
- May 6th, Key Stakeholder NCA Briefing Session in Mogadishu (See Appendix 2).
- May 13th, NCA research supervisors met with SNS partners (ACF and CWW Nutrition Managers) to confirm NCA study locations and plan field visits.
- May 14th, community mobilization conducted with ACF and CWW field teams.
- May 16-30th - NCA research amongst Mogadishu Urban and IDP communities on all working days.
- Debriefs with Mogadishu NCA research teams occurred daily following the field work, for approximately one hour (4-5 pm).
- Banadir study field team debrief meetings with lead consultant also included a full day data cleaning and debriefing at the end of the Banadir NCA field work.

NCA Research in Beletweyne

- May 14th, the Beletweyne field research teams (2 facilitators, 2 transcribers, 2 supervisors and 2 translators), led by the Field Coordinator, travelled from Mogadishu to Beletweyne (after the NCA Research Team training).
 - May 16th, planning meeting with SNS (SCI and Oxfam teams) in Beletweyne.
 - May 17th, Meeting with NCA lead researchers and

15 Which resulted in several additional interviews being undertaken with Mogadishu IDPs and urban communities.

Figure 1: NCA Study Organogram – NCA Research Team and Management Structure



local elders.

- May 18-28th, NCA data collection on all working days.
- The Beletweyne NCA Field Coordinator held daily debrief sessions with the two research teams, to ensure appropriate guidance, feedback and responsiveness to challenges faced.
- To monitor and guide the study, the lead consultant (Mogadishu based) conducted debrief sessions with the Beletweyne Field Coordinator as often as possible during the study by telephone, on average every second day due to network problems.

Round 2 – Training for Dollow IDP, Dollow Pastoralist and Baidoa Agro-pastoralist NCA research teams, in Dollow

Key Stakeholder NCA Briefing session in Dollow

- Conducted on 16th May at Dollow DRC Hall, it was attended by 23 participants and officially opened by the Dollow District Commissioner. Stakeholders actively participated in the question and answer sessions (See report in Appendix 3).
- Training of field research teams
This happened over four days between the 19th and 23rd of May. The final day involved pre-testing the NCA research methodology and tools.
- Data collection and Debrief meetings
In Dollow, data collection took place on all working days between 24th May and the 4th of June. Debriefing sessions with the research teams occurred every day after field research, for approximately two hours,

to address research challenges as they arose. For Dollow IDPs and Dollow Pastoralists, daily face to face debrief meetings were held with the lead researchers in situ. The final post-fieldwork day also involved a thorough face to face debrief session.

- Baidoa NCA field research and debrief sessions
The Research Coordinator travelled from Dollow to Baidoa on 24th May 2015. Due to last minute security-related complications (see earlier footnotes), the study did not start on 25th May as originally intended. Subsequently, NCA field research took place between May 26th and June 6th.

Debrief conversations between the lead researcher (situated in Dollow for security reasons) and the Research Coordinator in Baidoa, happened in general twice daily via telephone calls, both in the morning for guidance and post fieldwork each evening (network allowing). An important in-person Baidoa NCA debrief session was organized in Mogadishu, before the lead researchers left Somalia.

NCA Field Research Process

In total, 150 Focus Group Discussions (FGDs) and 156 Key Informant Interviews (KIIs) were undertaken during the NCA Study, supported by several case studies. See Table 2 below for breakdown per location.

See Appendices 9a-c for all the NCA study tools developed and used. These include Focus Group Discussion and Key Informant Interview Question Guides.

Table 2: NCA Study FGDs, KIIs and Case Studies conducted

Study Area	FGDs Undertaken	KIIs Conducted
Mogadishu IDP settlements	24	27
Mogadishu Urban Livelihood Zone	24	27
Beletweyne Riverine Livelihood Zone	20	20
Dollow IDP settlements	28	18
Dollow Pastoral Livelihood Zone	28	30
Baidoa Agro-Pastoral Livelihood Zone	25	34

NCA Research Timeline

Date	Activity
March 16 2015	Introduction to the Link NCA Methodology – ACF’s global Link NCA team oriented the Lead Researchers and NAG members in Nairobi
March 17-May 4, 2015	NCA planning meetings in Nairobi, to guide field research preparation. Inception report prepared, critiqued and revised Preparation, critique and revision of study tools Community mobilization Debriefing with Nairobi nutrition experts
May 5, 2015	Lead consultants travel to Mogadishu
May 6, 2015	NCA Key Stakeholder Briefing session in Mogadishu
May 6 (Afternoon) -12, 2015	Training of NCA research teams for Banadir and Hiran studies
May 13, 2015	Final logistical arrangements for the above studies Departure of two of the three lead NCA researchers for Dollow, one remained in Mogadishu
May 15-20	Training of NCA research teams for Gedo and Bay studies
May 15 – June 4, 2015	Data collection undertaken for Banadir (Mogadishu) and Hiran (Beletwayne) studies
May 20-June 8, 2015	Data collection undertaken for Gedo (Dollow) and Bay (Baidoa) studies
Mid-June to late July 2015	A series of thorough debrief sessions with the NCA Advisory Group in Nairobi. Select sessions also involved SNS Technical Working Group members
Mid-June until mid-September 2015	Data consolidation, analysis and report writing.
October until mid-November 2015	Interrogation of draft NCA report (includes six mini reports) by key internal stakeholders (SNS, WFP and DFID). Extensive critical comments received from many reviewers have informed the final NCA Report revisions.
16th November 2015	Final NCA Report available

Quality Assurance Mechanisms

Throughout the duration of the NCA study, technical oversight of the lead researchers was provided by the NCA Advisory Group (NAG), comprising of the SNS Consortium Manager and Researcher and a WFP Nutrition Specialist. In turn, the lead consultants established various mechanisms to help assure quality while in the field, especially during the intense periods of NCA field research in different locations.

NCA Advisory Group (NAG) oversight role

The NAG actively sought to assure quality during all stages of the research and report production. This was done through extensive, regular communication (telephone and e-mail correspondence, skype conference calls and in-person as feasible). The lead researchers received significant support from NAG members during the qualitative research training of NCA research teams in the field, and in relation to the supervision and support field teams received while the NCA research was underway. During the field research period, regular skype conference calls between the teams occurred, as feasible. Following completion of the NCA field research and the lead consultants' return to Nairobi, numerous sessions took place involving NAG members and lead researchers, to interrogate emerging findings, deepen analysis and strengthen draft reports. In sum, the NAG's role has been one of active engagement, professional guidance and the provision of constructive critical feedback throughout periods of NCA planning, field research, data analysis and report production.

Quality Assurance steps taken by lead researchers

Planning

- Selection of competent research team members for all NCA intended locations. Selection criteria of supervisors/translators and enumerators included: Prior research experience in the capacity of supervisor or enumerator, with FSNAU, UNICEF or other bodies undertaking research in Somalia locations; Verbal report of good conduct from the study agencies and elders on the ground; Good spoken Somali and English language (as training was conducted in English); Accessibility to the field; Knowledge of local dialect of respective study community; Availability for the full period of NCA researcher training and field work.

- Put in place an NCA research team structure with clearly defined roles and responsibilities, in respective NCA study locations. Each of the NCA research teams was led by Research Coordinator on the ground, who was in turn supervised and supported by one of the lead NCA researchers (from Mogadishu or Dollow). See Appendix 4.
- Ensured gender equity, which facilitated entry and discussions with particular groups of community respondents.
- SNS and WFP partner teams on the ground liaised with local community leaders and administrators (as feasible in different study locations) ahead of the NCA field research, to secure consent to conduct the research¹⁶.

Research Field Team Preparation and Training

- All NCA field research team members participated in in-depth training (approximately 6-day duration) on the NCA approach, steps and research tools to be used (See Appendix 6).
- Ensured sound translation of questionnaires during the research team training. This involved discussions amongst researchers to reach consensus on the most appropriate language to use for local contexts and intended audiences.
- Undertook a trial of key research methods and tools through the pre-test day in each location, to identify and address challenges and concerns as soon as possible. This learning subsequently informed the NCA research.
- Closely monitored ongoing NCA field research in each location. The lead researchers shifted team members around based on apparent weaknesses, strengths and best-fit with necessary research team roles and responsibilities.

Quality Assurance throughout NCA data collection

- Triangulation of information – Emerging material was cross checked through various sources including FGDs and KIIs, regular feedback and debrief sessions, photographs, secondary literature, and informal discussions with key stakeholders and case study interviewees.
- Feedback sessions with research team members and supervisors at the end of daily field research. This took place to address emerging challenges as soon as possible and adapt subsequent field research based on learning from experience. For example:
 - When translators proved unable to understand transcribed information, in some instances the translator was asked to accompany the research team in the field, to witness firsthand the research process and understand better what they were typing up and translating. These translators then adjusted their initial drafts on the basis of new learning and feedback, which was seen to enhance the quality of their work.
 - As the shelters in IDP settlements are very close, often those not involved in a FGD would

¹⁶ As well as ethical considerations in much of South Central Somalia this is essential to ensuring the safety and security of all researchers involved.

congregate to listen. When necessary the research teams requested non-participants to leave and, where possible, a separate FGD was organized to cater to those interested in participating¹⁷. This related to maximizing the participation of interviewees by ensuring groups did not become too big, and merely increased the numbers of people interviewed/voices heard in the study.

- In many contexts intended interviewees (men and women), were engaged in casual labor for much of the day and only home (i.e. able to participate in the research) either early morning or late evening. Where possible, FGDs and KIIs were rescheduled to fit a time more suitable to intended participants¹⁸.

Data Organization and Record Keeping

- Translated field research notes were reviewed and the necessary clarifications sought.
- All research transcriptions (originals in Somali) were clearly labeled before handing over to the supervisor and, consequently, before safe-keeping by the lead researcher concerned.
- Appropriate filing of soft copies, including all the necessary detail was assured to facilitate subsequent retrieval and for safe keeping¹⁹.

Data Analysis

- Initial raw analysis by the two NCA lead researchers took place in the field throughout the duration of the research in each location. This was done to highlight any weaknesses in the process and transcriptions being produced, as well as emerging key issues which could be incorporated into subsequent field research.²⁰
- All NCA data was consolidated in Nairobi as the analysis reached its next level. In-depth debrief and data interrogation sessions and regular meetings were held between the NAG and the lead NCA consultants on their return to Nairobi. Key SNS managers also helped to further interrogate emerging data and findings in several specially arranged sessions, until the NCA report was finalized.
- Valuable feedback and critical, constructive comments from the NAG and from a range of internal SNS, DFID and WFP reviewers, have deepened data analysis, helped to cross-check emergent findings and strengthen the final report.

As usual, however, ultimate responsibility for the findings rests with the lead NCA researchers.

Causal Pathway per NCA Study

A key output of a Link NCA study is the development of a local causal model to illustrate the main causes and pathways to acute malnutrition amongst communities researched. Central to each NCA study was the exploration of community perceptions about the local causes of malnutrition, which the NCA researchers have developed into causal pathways which reflect the respective narrative report, one per study and context. These six colourful visuals are included in the Executive Summary and found at the end of each NCA study report (Sections II to VII). They highlight the links between different underlying causes of acute malnutrition, key factors influencing the lives of particular communities which, together, make certain groups more vulnerable to acute malnutrition.

The initial NCA causal pathways depicted in this report should all be considered work in progress. It is anticipated and hoped that key stakeholders on the ground in respective NCA Study locations will add value to them over time, as the NCA findings are interrogated further at field levels.

NCA Report Validation and Production

- Following several rounds of initial dissemination sessions for critical review by the NCA Advisory Group, the full draft NCA Study Report was shared with key internal stakeholders for critical review and comment in mid-September 2015²¹. This was seen as critical to the validation of findings, given the impressive expertise, experience and collective knowledge held by the internal reviewers.
- The above process elicited extensive and significant feedback, fueling major revisions and select additions to the draft NCA report. Several interactive dissemination sessions with key SNS stakeholders between June and October 2015 stimulated important discussion which informed

¹⁷ When the number of participants (e.g. mothers with children under 5, or another group) presenting for a FGD exceeded ten, the researchers booked a separate FGD with the extra persons (mostly on the same day). Ten participants were considered the maximum number that the field researchers could effectively involve in one FGD, to ensure appropriate participation.

¹⁸ Given security constraints and related transport issues, as well as avoiding researcher fatigue

¹⁹ Labels included: name of Interviewer/ FGD facilitator, name of note taker, number and types of participants, non-verbal communication worthy of note as well as exact timing and location of the research session.

²⁰ This flexibility and responsiveness is often a strength of qualitative research, whereby unforeseen issues and information which may emerge as significant during initial field research can be incorporated into subsequent FGDs and KIIs for further exploration, as appropriate.

²¹ Includes key SNS managers and select members of WFP, DFID and the SNS Strategic Advisory Group (SAG) only.

final report revisions.

- After the launch of the NCA Report in December 2015, a series of dissemination meetings on key NCA study findings, recommendations and lessons learned, will be organized in Nairobi, Mogadishu and NCA study locations as feasible²². All these sessions are considered important to the validation of the NCA findings and recommendations, as well as to fostering their use in programming.

Sections II to VII which follow report on each of the six NCA Studies undertaken in select areas of South Central Somalia. Together make up the full SNS/ WFP NCA Study.



²² Working in particular with the Nutrition Cluster and the MOH as feasible

NCA Study among Mogadishu IDP Settlements

2

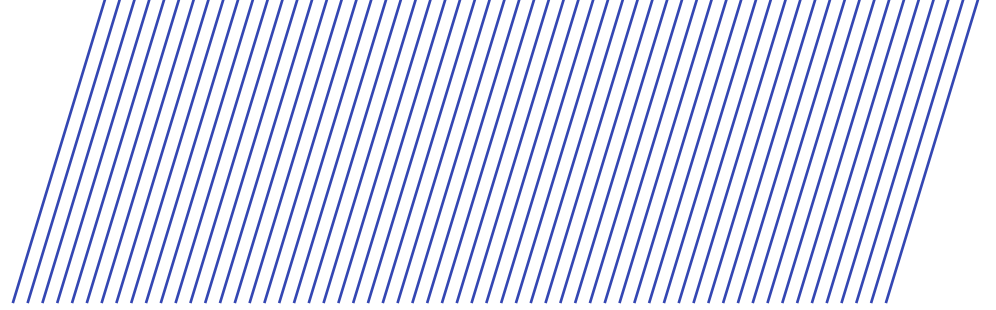
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Executive Summary

The nutrition situation in Mogadishu's Internally Displaced Persons (IDP) settlements rose above famine levels with a Global Acute Malnutrition (GAM) rate of 45.6% in August 2011, within six months this had reduced to Critical levels in January 2012 with GAM of 20.6%. By August 2012 the situation improved to Alert levels with GAM of 9.6%. This was largely attributed to massive humanitarian support (assessments conducted by UN FAO/FSNAU). Since this time humanitarian assistance has reduced but the nutrition situation in Mogadishu's IDP settlements remains worrying, ranging from Serious to Critical levels. (UN FAO/FSNAU, 2015). The health situation is poor and many basic services remain inaccessible (Somali Health Bulletin, Jan-March 2015).

The SNS Consortium undertook a detailed causal analysis of the nutrition situation amongst Mogadishu IDP settlements between March and November 2015, using the Nutrition Causal Analysis (NCA) methodology. The purpose of the study was to clearly articulate and develop recommendations to address the main factors underpinning sustained worrying levels of acute malnutrition. Key factors affecting the nutritional status of IDPs in Mogadishu, together with micro and macro level recommendations, are provided below.

Key Findings

- Limited access to income, attributed mainly to limited casual labour opportunities and to the lack of social support to facilitate access to basic services.
- High incidence of childhood diseases (especially measles and AWD) which increase vulnerability to acute malnutrition.
- A weak public health environment, largely attributed to overcrowding within the settlements, minimal local health facilities, discrimination faced in efforts to access health care and poor health seeking behaviour.
- A poor socio-care environment for women and children.
- Certain socio-cultural beliefs and practices (for example premature marriage and underage pregnancies for girls, Female Genital Mutilation

- (FGM) and weak Infant and Young Child Feeding (IYCF)) which adversely affect health and nutrition.
- Poor household food security and poor diet. The typical IDP diet (one main meal of anjera daily, supplemented with snacks and tea, including for many children under two years old) cannot meet nutritional needs. Lack of income constrains household ability to buy other foods and hinders household food security.
- Marginalization of Somali minorities, which hinders their access to opportunities to better their lives. These include humanitarian services, income generation opportunities and formal education.
- Poor access to humanitarian services, attributed to the limited quality services available locally and to related needs for transport to access more distant services, as well as to discrimination faced.
- Stand-alone projects seem to have little impact on acute malnutrition. More holistic and integrated, needs-focused approaches are needed, especially between health, WASH and nutrition.

Recommendations

1. Increase household access to basic health, nutrition, WASH and education services, especially amongst minority communities.
2. Support income generation activities and opportunities for minority families in particular.
3. Explore ways to increase cash flow into Mogadishu IDP settlements in a sustainable manner. For example:
 - Explore options to open up markets in the settlements where IDPs trade among themselves
 - Improve IDP business and vocational skills
 - Help ensure that vulnerable community members have access to formal education, especially women and children.
 - Consider establishing Cash Transfer Programmes that specifically target Mogadishu IDPs, including issuance of revolving funds or loans to support new businesses.

4. Reduce the high incidence of childhood disease:
 - Ensure local accessibility to immunization services and MCHs, to better control communicable disease.
 - Ensure adequate WASH facilities and actively promote improved hygiene by raising awareness on the importance of personal and environmental hygiene.
 - Ensure appropriate health and nutrition education and promotion.
 - Strengthen the quality of health services E.g. train health personnel to diagnose and treat simple ailments, train staff on ethical service delivery including discriminating against patients from particular backgrounds or locations and ensure the availability of essential drugs.

5. Improve the public health environment:
 - Sanitation: Support community members to keep their environment clean, e.g. to bury children's stool and empty full latrines using exhausters, on a regular basis. Provide the necessary equipment.
 - Water: Support the provision of adequate WASH facilities, e.g. by providing basic instruments to dig (for urban settlements where shallow wells are available), as well as helping IDPs access water tanks, jerry cans (for water storage), taps, pipes and aqua-tabs.
 - Hygiene: Run Nutrition, Hygiene and Health Promotion (HNNP) programmes to raise awareness and foster improved hygiene in IDP communities.
 - Health care: Provide MCH programmes in IDP settlements, specifically for IDPs, to provide family planning services, EPI, assisted deliveries, pre-natal and ante-natal services. Ensure IDP access to outpatient services and hospitals with qualified personnel, drugs, and EPI supplies. Consider providing EPI services through the Madrasas where children congregate for lessons.

6. Improve the socio-care environment for women and children. Specific areas of focus to include:
 - Programmes to help reduce women's heavy workload so they are better able to care for children and themselves, e.g. through supporting Madrasas to offer day care for children left unattended while their mothers are working. Involve IDPs in managing and staffing such facilities.
 - Set up long term social and behavioural change initiatives to tackle questionable socio-cultural beliefs and practices that impact negatively on health and nutrition. For example, FGM, beatings and rape against women and girls.
 - Raise awareness on the importance of child spacing and its significance to the health of women, infants and children.
 - Consider ways to effectively address the phenomenon of rising divorce rates and irresponsible husbands who often fail to support their families following divorce. The NCA study showed this to be critical to nutritional status as this happens more often when girls are forced to marry at a young age (13 years plus) and bear children when they are neither physically, emotionally, or socially mature enough. Divorced young mothers (often 15 or 16 years old) are ill placed to meet the needs of their young children.

7. Improve Infant and Young Child Feeding (IYCF) practices.
 - Explore potential support mechanisms to strengthen the wellbeing of vulnerable women, e.g. self-help groups and mobile counselling services. Consider a legal framework where complaints can be channelled and addressed.
 - Explore opportunities to strengthen the protection of vulnerable women and children in particular, e.g. enhancing security in settlements and making referrals to local Social Protection actors.

8. Strengthen household food security, e.g. by enhancing the access of vulnerable community members, including minorities, to income generation and cash transfer programmes. Specifically target IDPs and women-headed households to enable them to access resources to improve their livelihoods.

9. Improve household diets. Raise awareness on what constitutes an appropriate diet for the household, in particular for children under five years old, based on locally available resources.

10. Increase IDP access to existing humanitarian services and resilience programmes. Address related issues of distance/ transport costs, discrimination in service delivery, lack of awareness and service quality.

11. Adopt and advocate for more integrated service provision. Current stand-alone projects in IDP

settlements are unlikely to have a significant impact due to the common lack of synergy with complementary programmes in other sectors. Nutrition, health and WASH services in particular should be integrated, to ensure a more holistic basic service package for vulnerable community members.

12. Governance: Consider ways to effectively address the barriers that contribute to the further marginalization of Somali minorities, which hinder their access to opportunities to improve their own lives.





Context

1.1 Background

Since the collapse of the Somali central government in 1991 a number of factors have triggered continued massive displacements of people into and out of Mogadishu and other urban centres these include armed conflict, the 2011 famine and recurrent drought and floods in South Central Somalia. When fighting between government forces and anti-government militias intensified in 2007, approximately 400,000 people fled the battle zones and settled in the 'Afgooye Corridor', a 20-kilometre stretch of road out of Mogadishu. Armed militia withdrew from Mogadishu towards the Afgooye Corridor in early 2012 when the central government became stronger, resulting in mass return of IDPs to the city. The 2011/12 famine in the South Central Zone (SCZ) led to further mass displacement and dispersion of people into Mogadishu in search of food and humanitarian assistance.

Dispersed IDP settlements in Mogadishu remain a challenge to the coordination of humanitarian services. From March 2013, the Somali government began to implement a resettlement plan for Mogadishu IDPs. This has involved moving IDPs from public or private land which they occupy to a piece of land in Deynile District. On May 22nd 2013, UN-Habitat in consultation with Banadir Authorities developed a strategy for the resettlement of Mogadishu IDPs, including Mogadishu urban rehabilitation (UN Human Settlement Programme, 2013). Information on the progress of this resettlement process was unavailable to the research team.

According to UNHCR (2014) there are over 1.1 million IDPs in Somalia. Of these, approximately 893,000 live in the SCZ, with 369,000 IDPs residing in settlements within and around Mogadishu. UNICEF in 2013 estimated about 60% of IDPs to be children (IDMC 2015; UNICEF, January 2013).

1.2 Introduction to the Study

The nutrition situation in Mogadishu's IDP settlements has remained within Serious-Critical levels since the 2011 famine (FSNAU, 2015). To analyse this situation further the SNS Consortium undertook a detailed NCA study in Mogadishu IDP settlements between March and November 2015. The objectives of the study were as follows:

- To identify the main factors underpinning acute malnutrition in order to inform strategy and prevention programmes (health, WASH and nutrition) at local levels.
- To understand the local seasonal and historical pathways to acute malnutrition.
- To strengthen the evidence base and support advocacy to tackle the causes of acute malnutrition in the SCZ.

Planning for the NCA study was undertaken in March and April 2015 and entailed literature review and meetings with stakeholders in Nairobi and Mogadishu. Field work was conducted from May 5 - June 8 in four villages: Sayidka Barbuslshe in Howlwadag District, Tabellaha Harqabowe, Midnimo and Kulmis in Wadajir District. This was followed by debrief meetings with key stakeholders in Mogadishu. Data consolidation, analysis and report writing were undertaken between June and November 2015.

This report shares the findings and analysis of the NCA study in Mogadishu's IDP Settlements. The findings include:

- The typical characteristics of the study population.
- The historical timeline of events impacting on nutrition
- Seasonal factors.
- Other factors impacting on the nutrition situation.

The report also includes discussion, conclusions and the causal pathway to acute malnutrition. Recommendations to address the currently worrying nutrition situation are shared.

1.3 Nutrition Situation

Based on analysis by FSNAU, the nutrition situation in Mogadishu's IDP settlements reached famine levels (GAM of 30% WHZ) in the Gu of 2011 with GAM rates of 45.6% and SAM of 23.6% in tr 2011. Due to high levels of humanitarian assistance the rates reduced to Critical levels by the Deyr 2011 with GAM of 20.5% and SAM of 5.6% in December 2011 (Figure 1). The UN declared the famine was over in February 2012. The nutrition situation improved to Alert levels in Gu 2012 and Deyr 2013 and now is in the range of Serious to Critical. This continuing poor nutritional context highlights why a deeper understanding of the complex factors underlying malnutrition is needed to inform programming.

Figure 1 : Trend of Global Acute Malnutrition (WHZ<-2 or oedema), Mogadishu IDPs, in the Gu and the Deyr seasons, 2011-2014
(Source: UNFAO : FSNAU)



1.4 Health, Water, Sanitation and Hygiene Situation

According to the Somali Health Cluster Bulletin (January-March 2015) polio eradication has had successes with Somalia passing 8 months without polio outbreaks, but risks remain. Measles remains a public health concern across population groups, including Mogadishu IDPs. Low funding for the health cluster is a major factor hindering access to supplies both for primary and secondary health care services. A recent survey done by SNS among the IDPs revealed that 59% of IDPs in settlements had access to tap water while the rest accessed water from boreholes within the city. Among the IDP community over 60% used community latrines.

1.5 Food security situation

According to the FSNAU (Technical Series Report No. VII 57, March 5, 2015):

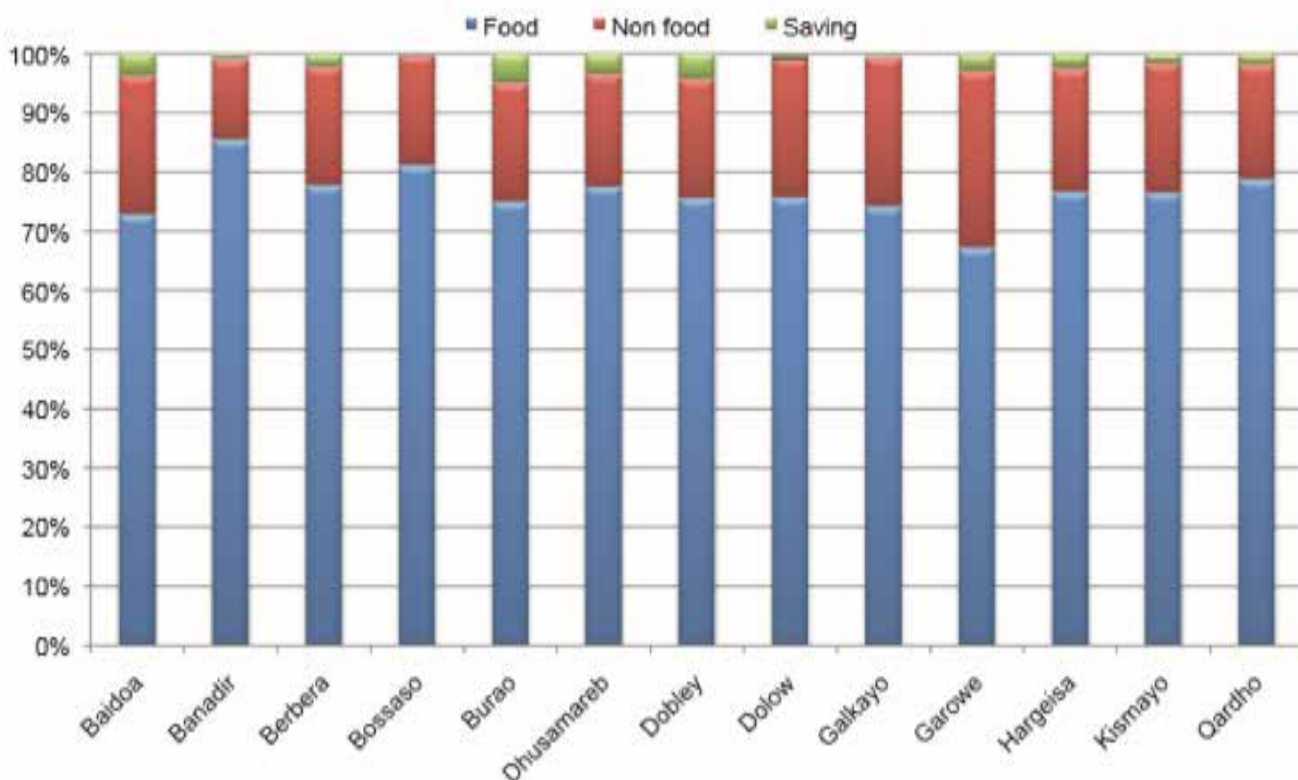
- The food security situation remains precarious in all major IDP settlements and is classified as Crisis (IPC phase 3) among Mogadishu IDPs.
- 350,000 Banadir IDPs are officially acknowledged to be in Crisis and 11,000 in Emergency phase. The IDPs represented 74% of the total population in Crisis (IPC Phase 3) and Emergency phase (IPC Phase 4) in Somalia in the period between February and June 2015.
- UNCHR reported displacements of 114 730 people within Somalia between September and November 2014. 36% of displacement was due to floods, 26% insecurity and 19% evictions.
- The FSNAU assessment revealed a high proportion of recent (within the 12 months prior to the survey) IDP arrivals (Banadir 32%). The

new arrivals in Mogadishu are mostly from within the city due to forced evictions, as well as from Lower Shabelle and Middle Shabelle regions where conflict remains rife.

- IDP households, regardless of the sex of an income provider, showed a high proportion of expenditure (over 70% across most settlements) on food items, with higher levels recorded in the South (71-88%). See below.

In general, IDP households have very few assets (productive and livestock assets). About 75-100% of IDPs in all locations are asset poor (0-4 assets). On average, 75% of the surveyed households, regardless of the sex of the income provider, owned at least one mobile phone and approximately 30% of the surveyed households owned some type of livestock (FSNAU 2015). Generally, the nutrition, health and food security situation depicts a worrying context for Mogadishu's IDPs.

Figure 2 : Expenditure pattern in IDP settlements, December 2014, (FSNAU Jan 2015)



1.6 Humanitarian Support

Humanitarian organisations supporting IDPs are shown in the table below. The agencies support both IDP and the host urban population.

Table 1: Humanitarian Assistance in Banadir Region

Humanitarian assistance	Organizations
Outpatient Treatment Programme (OTP)	CWW, ACF, SCI
Joint Health and Nutrition Programme	CISP and SCI
Targeted Supplementary Feeding Programme (TSFP)	SCI, Mercy USA,
Infant and Young Child Feeding (IYCF)	SACCID, ACF, SCI, CWW, ACF, ANPPCAN
Health care	CWW, Mercy USA, IMC, WARDI, CPD/SCI, SWISS-KALMO, ZAMZAM, SHARDO, MEDAIR, HIJRA
Water, Sanitation and Hygiene (WASH)	DRC, HINNA, CESVI, WARDI, MERCY CORPS, ACF, SOPHPA, SCI/CPD, ARC, IOM, CARE/HIJRA, CWW
Food For Asset (FFA)	CCS, New ways, OSPAD, SORRDO, KAASHIF and HIMILO
Education and Vocational Training	ADRA, FENPS, CISP, NRC, MC, SCC, CWW

2. Findings and Analysis

2.1 Typical Livelihood Characteristics of IDPs

The NCA study reviewed the main sources of food, income and income expenditure of Mogadishu IDPs. Findings are provided in Table 2.

These findings are consistent with the FSNAU Post Deyr 2014 report which indicates similar expenditure pattern among IDPs, including Mogadishu based IDPs (Banadir).

A wealth ranking exercise was undertaken with the following criteria: type of shelter, access to latrines, access to water and the ability to take sick to private health care services. The exercise found that all the IDPs are poor, there are no better off or middle wealth groups among them.

Table 2: Livelihood Characteristics of Mogadishu IDPs

Main source of food	%	Analysis
Purchase	80-90%	Food (80-90%) is mainly acquired through purchase. Access to sustainable sources of income is therefore crucial for survival.
Food for work	5-10%	
Humanitarian support	2-5%	
Support from urban community	2-5%	
Main source of income		
Casual labour	98-100%	Income (98-100%) is mainly accessed through casual labour. Petty trade and social support are almost non-existent and hence play an insignificant role in income. Remittances are non-existent.
Petty trade	0-2%	
Support from relatives	0-1%	
Income expenditure		
Food and Milk	90-94%	Income accessed is mainly spent on food (90-94%). There are no savings nor investments in livelihoods.
House rent	1-2%	
Water bills	2-3%	
Quran Schools	2%	
Medical	1%	

Table 3: Wealth Ranking Mogadishu IDPs

Wealth Group	Poor	Middle	Better-off
Proportion (%)	100	0	0

2.2 Historical Timeline of Events

Information from the NCA, partners and the literature review highlight that climatic factors, the 2011 famine and persistent insecurity continue to underpin the high levels of acute malnutrition in Mogadishu's IDP settlements. The impact of humanitarian assistance in mitigating the nutrition situation was clear in 2011

and 2012 when famine levels of GAM reduced from 45.6% to 20.5% within a six month period. However, since 2013 IDPs have experienced reduced access to humanitarian support to mitigate the nutrition situation. A summary of the context between 2011 and 2015 and the resulting impact is detailed below.

Table 4: Historical Timeline of Context and Resulting Impacts Facing Mogadishu IDP's (2011-2015)

Year	Context	Impact
2011	Drought started in 2009-2010 July 20th, 2011: The UN declares famine in Bakool and Lower Shabelle and called for massive humanitarian support	Collapsed rural livelihoods, destitution, starvation, mass displacements into Mogadishu's IDP settlements, acute malnutrition (GAM of 45.6% in Gu 2011 and 20.5% in Deyr), deaths, massive humanitarian assistance
2012	February 2, 2012: UN declared end of famine in Somalia Insecurity persists Sep 20, 2012 Presidential elections	IDPs unable to return to areas of origin, acute malnutrition drops to Alert then picks to Critical phases (GAM 9.6% in Gu and 16% in Deyr), humanitarian assistance accessible
2013	Drought and floods in parts of SCZ Insecurity – violence and rape of women & girls Scale down of humanitarian assistance <ul style="list-style-type: none"> o MSF pulled out of Mogadishu o The rationalization plan of nutrition programmes o Government decree to increase developmental programmes and reduce humanitarian support (source: field reports) o WFP scaled down food aid in Banadir o Reduced humanitarian funding Evictions of IDPs from public or private land (Field reports)	Drought and floods led to loss of livestock and crops reducing food and income access and increasing levels of diarrheal diseases Insecurity <ul style="list-style-type: none"> o Hinders IDPs' return and ability to bounce back into rural livelihood systems. Albeit some, mainly from L & M Shabelle make trips in Gu and Deyr seasons to plant/harvest leaving women and children behind. o Poor psychological wellbeing of women and girls Scale down of humanitarian services leads to poor IDP access to lifesaving services (including SC, OTP, OPD, and MCH, previously provided by MSF). Reduced income access opportunities. Acute malnutrition (GAM of 12.6 in Gu and 8.2 in Deyr) Further displacements within and into Mogadishu
2014	Insecurity in Mogadishu & SCZ Excessive rains Forced evictions of IDPs Low humanitarian funding	Displacement into the camps Violence and rape of women and girls Disease Acute malnutrition (GAM of 18.9 in Gu and 13.4 in Deyr) Poor IDP access to humanitarian support
2015	Insecurity in Mogadishu Heavy rains in parts of SCZ (though not in Mogadishu) Forced evictions of IDPs (UNHCR 2015, Field reports) Low humanitarian funding	Reduced access to casual labour opportunities and income Violence and rape of women and girls Disease Further displacements within Mogadishu IDP settlements Some IDPs have expressed desire to return and request support for transport, subsistence and assured access to their land Poor access to humanitarian support

2.4 Local Definitions and Understandings of Acute Malnutrition

The local word for acute malnutrition is *'nafaqo'*. Discussions in Focus Group Discussions (FGDs) and in Key Informant Interviews (KIIs) indicated that the majority of people are able to list some of the signs and symptoms of acute malnutrition, as indicated in the quotes below:

"The child's appearance changes, she becomes weak and refuses food, the legs and the hands get swollen" (mother of child under five).

"The child cries a lot, loses appetite and becomes very thin, feverish and weak" (father of a child under five).

"The child might develop pale eyelids, lips and fingernails, the body swells and he cannot stand upright due to weakness" (mother with a malnourished child).

"The child looks weak, has long spells of diarrhoea, fails to breastfeed, cries a lot and sometimes has pale and swollen eyelids" (a community leader).

Based on this understanding at community level, the NCA study adopted the use of the term *'nafaqo'* for acute malnutrition during the field study.

2.5 Key Factors Contributing to Acute Malnutrition

The research revealed a number of key factors that contribute to acute malnutrition. These are discussed below.

2.6.1 Limited income and/or social support to facilitate access to basic services

Income was found to be a major factor in accessing basic services. *"Acute malnutrition occurs when someone has no money" (a woman with a malnourished child, Hodan ACF stabilization centre).* *"Acute malnutrition occurs due to lack of funds or unemployment" (Quranic teacher in a Madrasa).*

80-90% of household income is spent on food with only about 1% spent on medical care (see Table 2 above). Lack of access to income generating opportunities was found to impact on the ability to attain good nutrition.

"We need our own market where we can buy from one another and sell at a fair price" (a community leader). *"It is difficult to get opportunities to sell in the existing markets as they are full" (older women's FGD).*

2.5.2 High incidence of childhood diseases

Discussions with ACF and CWW Mogadishu OTP/SC staff during field work indicated that measles, diarrhoea and ARI are the main contributors to acute malnutrition presenting at the centres. Malaria is the main cause of death in children below five years due to the lack of mosquito nets and poor shelter conditions. AWD and malaria are common in the rainy seasons. Communities also reported cases of hepatitis (i.e. *"cagaarshow"*), but this was not confirmed at health facility level.

Access to vaccinations was found to be a problem for IDPs, access to measles vaccination services in particular. Measles vaccination status in Mogadishu IDPs is 52.3% and therefore just above half of the SPHERE recommended minimum of 95% (FSNAU, 2015). This poses a risk of incidences and epidemics both to residents and IDPs. A health worker interviewed highlighted that *"we give polio immunization only, then refer the mother to the main hospitals for other vaccinations."* In another health facility an NGO worker stated *"no vaccinations are available at the centre."* FSNAU Deyr 2014/15 nutrition findings in Mogadishu IDP settlements show a significant statistical association between morbidity and malnourished children based on mid upper arm circumference (MUAC <12.5cm).

2.5.3 Health seeking behaviour

The assessment found about 20% of research subjects reported visiting health facilities while about 80% sought assistance elsewhere due to the following reasons:

- Lack of health facilities in the assessed IDP villages - *"There is neither MCH nor OPD in the assessed villages" (FGDs).*
- Distance and costs - *"The hospitals are very far from them" (TBA).* *"There is no one to take us there and I cannot afford to pay the hospital fee if I go" (a young pregnant mother).*
- Absence of medical personnel - *"Nurses or assistants are not there most of the time."*
- Inability of medical personnel to treat - *"Sometimes they give the wrong prescription leading to miscarriages or complications" (father of a child under five).*
- Lack of drugs in some health facilities - *"Medicine is not there."*
- A history of unmet expectations - *"There are those who have visited the centres and never received medicine... Sometimes after waiting in a long queue we do get the medicine yet we are told to pay money."*
- Reported discrimination by personnel at the health facilities - *"There is injustice. Someone who came in after you is seen before you"*

(mothers of under five year olds).

- Experience and Attitude - *"I have had all of my children out of hospital and have not had any problems"* (a mother of under-fives)
- Lack of awareness - *"There are many people who say they do not know about health"* (Researcher debrief).
- Fear of the treatment or consequences of the treatment - *"I am afraid of needles and injections"* or *"the needle may have been used on someone else and not be clean."*
- Insecurity - *"Sometimes fighting occurs at health facilities and nutrition centres."*
- Priorities - *"Young mothers look for food instead of medicine"* (older mothers). *"She takes the sick child to the pharmacy for medicine"* (father of five).
- Reading the Quran: *"I hold the Qur'an"* (A mother of four). *"Young mothers with sick children go to Sheikhs for recitation of the Holy Qur'an"* (an older woman).

2.5.4 Inadequate public health environment

- *"Acute malnutrition is caused by conditions relating to public health, especially those relating to the provision of clean drinking water and adequate sewage disposal"* (an NGO worker). *"With the exploding population of Mogadishu and its suburbs, household garbage and refuse is posing a serious threat to the environment. You can see a woman dressed in dirty rags, wandering aimlessly in the streets, scavenging in garbage for food"*(community public awareness group).

There is poor access to latrines in most of the assessed villages, while in some none are available. *"IDPs share two bathrooms among 50 families; the toilets are full and overflowing. We have no space to dig other latrines there"* (NGO worker). *"Toilets are available but are dark, soiled, smell bad, or unattractive to use"* (mother of child under five years). Poor drainage was observed especially causing problems when it rains.

Field workers observed that open defecation was common, some bury stool and some do not. According to a community leader, reasons for open defecation are varied and it can indeed be a voluntary choice but in most cases it is due to the fact that toilets are not available or clean.

- Safety issues linked to using toilets were also raised. *"Shared or public toilets are available but there is a risk of personal safety. Criminals are known to gather at those toilets to wait for possible victims... Toilets are not available as part of the household but only at some distance and it may be dangerous to get there at night"* (fathers of under-fives).

Water access - According to the NCA findings, IDPs in Mogadishu rely on water trucked from boreholes or shallow wells. A 20 litre jerry can of water costs Somali Shillings

1000-2000, differing with suppliers (US\$1 = 22000 Somali Shillings). Most households access 1 jerry can of water a day. Those without money depend on neighbours.

Poor/lack of shelter - IDP shelters are mostly located on other people's land, they pay approximately US\$5/month as rent. The shelter conditions are inadequate and predispose children to extremes of weather including heat, cold, wind and dust (field observations).

2.5.5 Poor environment for women and children

Research revealed that child care and meeting children's basic needs is perceived to be a woman's job. Most IDP men reportedly provide little or no help with child care. *"Women complain that men do not assist them with money for food or non-food items"* (feedback sessions with researchers). *"Unemployment among men enhances their inability to take care of their families"* (TBA).

- **Women's workload** - Women are heavily engaged in casual work such as firewood collection and the sale and washing of clothes, which leaves little time to take care of children and often necessitates leaving younger children in the care of elder siblings. *"This workload leaves us tired and unable to play and take care of our babies and children effectively"* (women's FGD). Interviews with religious leaders and mothers of under-fives attributed misunderstandings within the household in part to this heavy workload.

Typical daily schedule for an IDP woman

- 6-8am: prepare breakfast (i.e. leftovers from supper), wash clothes, prepare and take children to a madrasa.
 - 8am-6pm: Casual labour/ petty trade such as washing clothes for the better off, collecting and selling firewood; some women with husbands stay home and take care of children, those without husbands provide for themselves.
 - 6-9pm: Prepare dinner, wash.
- (FGD with mothers of under-5s)

- **Violence against women** *"They experience fighting, shouting, beatings, abuse with no one to help them"* says an older woman with regard to problems experienced by women. *"Rape also often happens but mostly in the field when women are fetching wood"* (FGD with mothers of under-fives).
- **High divorce rates** - *"When a 13 year old girl gets married and has a baby, there is often stress between her and her husband which can lead to divorce... After a divorce, the girl is left to provide for the children, but most often they are not able due to lack of resources"* (FGD of mothers with malnourished children). Older women reported that divorced girls and women often suffer from depression trying to cope on their own.
- **Lack of education for women and children** – The majority of the communities interviewed

have not attained any level of formal education. *“Educated people here are few because our families do not have sufficient money to take our children to school”* (fathers FGD). *“The society here would like children to learn, however we do not have the money to provide education”* (community leader). **“No one goes to school here”** (FGD with mothers of under-fives). *“13-17 year old girls do not go to school because of lack of fees. They go for courtship instead of school... We don't have educated girls”* (community leader). Lack of formal education confines the IDPs to casual labour.

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- **Psychological issues** – “A mother holding a malnourished child has general sadness and grief” (NGO worker). A Quranic teacher describes such a mother as having “deep sorrow”, especially when the death of a malnourished child occurs. This finding is consistent with an earlier study (SAGE, 2014), which showed a statistically significant relationship between maternal depression and acute child malnutrition. Absence of husbands (for even 30 days) is common and often associated with men chewing “khat” or taking drugs.
- Single parent families, nearly always female headed families, puts even more pressure on these women which negatively impacts on every area of their lives, including nutrition and the health of themselves and their children.
-
- **Early marriage** - It is the culture in these settlements to marry off daughters between 13 and 15 years old, some as early as 11 years. *“The reason for marriage of young girls is that it is our culture and tradition”* (fathers FGD). *“It is considered too late to be a wife at the age of 16 years or more”* (FGD with mothers of under-5s). The community is mostly aware of the dangers of early marriage and underage pregnancies but it is a tradition that endures despite the knowledge. Lack of access to education also compounds the willingness to marry off girls young. Other reasons for early marriage included: lack of education, lack of hope, for security reasons (to protect them from being taken by militia), personal interest such as to access money, pressure from older members of the family and community, the hope that early marriage leads to larger families and more heirs and *“to prevent something bad from happening such as pregnancies before marriage...If a girl is raped and conceives, it is preferable that she marries rather than be punished by local militia for getting a child before marriage”* (FGD older women).
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- **Underage pregnancies** - *“Underage girls experience acute malnutrition, headaches, anaemia, and high blood pressure...Young pregnant girls are often weak and suffer from pain”* (FGDs with older women and TBAs).
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- **Lack of access to maternal health care** – The study found that about 80-95% of pregnant women are assisted by untrained TBAs while only about 5-20% deliver at health centres. Reasons for not using hospitals or health facilities include lack of funds for services and transport. Lack of trained care has resulted in traumatic deliveries that have left some girls paralysed, with torn uteruses, fistula, anaemia, miscarriages and bleeding. Female Genital Mutilation (FGM) negatively contributes to these complications. Early marriage and underage pregnancy also leads to...*“young mothers not knowing how to take care of themselves and their children, and both end up being admitted together into the SC/OTP”* (ACF staff).
-
- **Poor child spacing** - *“As a result of which mothers who give birth very often experience a lot of weakness”* (TBA). *“Child spacing ranges between 1-2 years”* (FGD).

2.5.6. Poor Infant and Young Child Feeding (IYCF) Practices

For many reasons most IYCF practices are sub-optimal and predispose children to disease and acute malnutrition. Globally accepted standards outline the following as optimal IYCF practice:

- Breastfeeding a new-born within the first hour of birth and definitely within the first eight hours.
- Exclusive breastfeeding up to the age of six months with no water or food provided.
- Introduction of appropriate complementary food at the age of six months.
- Persistent breastfeeding up to the age of 24 months.
- Breastfeeding the baby on demand.

Below is a summary of NCA research findings that highlight poor IYCF practices. A case study is included to highlight how some mothers are beginning to adopt appropriate IYCF practices with positive results.

Providing breast milk exclusively within the first hour after birth is rare. Tradition dictates to give a new-born breastmilk, sugared water, honey and/or dates, sorghum within the first hour after birth. The rationale for this is that *“you can protect the baby from many diseases this way”* (a TBA). *“Sugared water is given in the first hour after birth ‘to give him strength’. Breastmilk is given thereafter”* (FGD of mothers with malnourished children).

Providing breast milk within the first 8 hours of birth is done by some mothers. Others take up to 36 hours to breastfeed. However, sugared water continues to be given as well. *“In the first eight hours my first child was given breast milk and sugar-water”* (mother of a child under five).

Exclusive breastfeeding for the first six months

of life - This is rarely done. Typically, sugared water is given, bottle feeding is introduced early and is also considered an alternative when the mother conceives again. Some women believe that they do not have enough milk to support the child through the first six months of its life.

Introducing other food at the age of six months is mostly done earlier than six months, especially if the mother conceives early. However, there are those who wait. *"I first introduced other food to the baby between 6-7 months. I gave potato, eggs, milk, rice and normal household food"* (sorghum, rice and maize). Culturally liver, eggs and tomatoes are not given to a child in the first year of their life as they are believed to cause stomach ache.

Frequency of breastfeeding – Responses indicate that feeding is often linked to demand. *"A child under one year of age is mostly fed on milk because it has not reached the age when it can consume other foods"*, *"we feed babies any time they need breastmilk"*, *"I give milk when the baby cries for it."*

Persistence of breastfeeding up to 24 months – The research found that communities mostly breastfeed for from 4 to 24 months, depending on when the mother conceives again, at which time it is stopped. This is due to the dominant belief that both mother and/or child will fall ill if breastfeeding continues while she is pregnant.

The NCA study findings show that most IDP women conceive within six months of delivery, at which time breastfeeding is terminated. This leads to premature introduction of infants to bottle feeds and the family diet fuelling AWD and vulnerability in infants.

2.5.7. Poor household food security

From information collected the main source of income for Mogadishu's IDPs is casual labour, contributing 98-100% of household income. However, access to casual labour opportunities are low. *"There are no rich people among us. We are the same"* (community leader) in response to wealth group definitions. *"There are no remittances sent to Mogadishu's IDPs as we do not have relatives abroad to support us. Therefore we do not have a way of supporting each other, everyone is needy... For these reasons IDPs' have limited income which hinders household ability to purchase food and other commodities"* (FGDs).

Key informant interviews indicated that about 40-50% of IDPs from Lower and Middle Shabelle cultivate farms during the rainy season. Others, mainly from Bay Region, are unable to do so due to insecurity in areas of origin and poor access to seeds and tools. The failure of rains or floods can cause loss of crop or livestock. Research findings also show low levels of humanitarian aid since 2013 in the assessed villages, including no cash distribution since this date (FGDs with fathers).

2.5.8. Poor Dietary Intake

Field work revealed that IDPs largely eat one meal per day which is mostly carbohydrate. The average diet was as follows:

Dinner - *"On most nights we eat rice, maize, sorghum"*

Breakfast – Leftovers from dinner are eaten if available.

"We eat remains of food from what we cooked and ate the previous night"

Lunch - Adults do not consume food at lunch time.

Children aged below one are provided with tea (sugar and tea leaves and occasionally with milk) as a snack whenever possible. *"Only tea is possible"*. *"We would like to eat food 2 or 3 times a day, but are unable to buy"* (community leader).

2.5.9. Some Cultural Beliefs and Practices

Some dominant socio-cultural practices such as FGM, early/ premature marriage and pregnancy, as well as pregnancy dietary taboos, all have potentially negative consequences on health and nutrition.

"FGM is a destructive operation during which the female genitals are partly or entirely removed or injured with the goal of inhibiting a woman's sexual feelings. Most often the mutilation is performed before puberty, often on girls between the ages of four and eight, but recently it is increasingly performed on infants who are only a couple of days, weeks or months old" (health worker). It is the perception of the communities that FGM affects the psychological wellbeing of the young girls as it results in a lot of pain, later hindering women from engaging in activities that would benefit their household economy and nutrition status. Despite this the IDP community continues practice in FGM.

Once a girl child is circumcised, she is perceived to be ready for marriage. FGM among younger children under 8 is reportedly on the increase. The youngest reported married girl in this research was 11 years old. She conceived and had a baby by caesarean by the age of 12 (NCA researcher). Early marriages and underage pregnancies are also associated with cultural beliefs and practices. FGD respondents stated that a girl of 16 years is considered too old to be married. Certain foods such as liver, eggs or heart are typically not eaten in pregnancy, supposedly to keep foetuses smaller to aid delivery. This contributes to babies with low birth weights.

According to older women, granting of a divorce is an easy process requiring the presence of the husband who issues the divorce, and a witness. In times of stress, rather than address the problems many husbands prefer to issue a divorce. This leaves the young mothers (often just teenagers) to take care of their children alone. This contributes to acute malnutrition as the mothers are not economically able to adequately care for their children.

2.6. Poor Access to Humanitarian Services

Assessed communities indicated that they have gaps in meeting their basic needs which has contributed towards the poor nutrition and health conditions they face. The absence of a social support system, due to the high levels of poverty within the communities, indicate that the gaps might only be filled through humanitarian support from external agencies. In general, it was found that access to humanitarian services has declined since 2013.

“When we fled the drought and war, we came here to save our lives and to get food from humanitarian agencies, but unfortunately up to now we don’t have any organization to support us. We had hoped for a better life than what we have now” (a community leader).

“Yes, there is widespread unemployment and insecurity. There is no support from our government nor from other agencies” (a TBA).



3. Discussion and Conclusions

The 2011/2012 famine was the core driver in the expansion of Mogadishu's IDP settlements. The concentration of people in these settlements enabled focused humanitarian assistance and contributed to managing the famine within a short time. However most of the IDPs have not returned to their homes and significant nutrition challenges remain as the findings above have shown. This is compounded by a reduction in the availability of humanitarian assistance. Furthermore, continuing insecurity and other factors are still causing movement to IDP camps from many rural areas of SC Somalia.

The key research findings include:

- Mogadishu IDPs reside in a city where basic services and commodities such as food, water, shelter, health care, sanitation, and education are procured. Access to income is therefore essential to gain access to these commodities and services. However income access is low and mostly (80-90%) used to purchase food. With poor asset levels, the ability of IDPs to cope is stretched (FSNAU 2015).
- The majority of IDPs in Mogadishu do not have formal education, they lack general awareness of appropriate health and nutrition practices and skills and networks to thrive in the urban economy. In this context their cultural beliefs and attitudes continue to act as their compass in making key decisions (such as on marriage, IYCF and health behaviour) which impacts negatively on nutrition.
- Mogadishu's IDP camps are now a public health concern both to IDPs and the resident population. Key issues include acute malnutrition, poor access to water, poor sanitation, outbreaks of communicable diseases such as measles and diarrhoea and violence against women and girls.

With the famine officially declared over for some years now, having hundreds of thousands of people in camps which offer little of the basics for human survival (water, sanitation, food, health care, education, socio care services and security) alongside widespread insecurity, raises serious issues of concern. The perceptions and

reality of better services in urban areas continue to fuel such migration.

Although some agencies are supporting those who want to return to their places of origin, in reality people are not returning in large numbers, especially with continuing insecurity, AMISOM and Alshabaab offensives (CWW 2015 field reports).

Conclusions

Based on the NCA study, ten core factors were found to underpin acute malnutrition in Mogadishu's IDP settlements. These are ranked in order of importance with the most important first.

- Limited access to income or social support to facilitate access to basic services.
- High incidence of childhood diseases increasing vulnerability to acute malnutrition.
- Inadequate public health care environment.
- Poor socio-care environment for women and children, including workload, FGM, violence against women, high divorce rates, lack of education for women and children, psychological issues and single parenting.
- Some cultural beliefs and practices (for example on early marriages and underage pregnancies, FGM, divorce, IYCF) adversely affect health and nutrition.
- Early marriage for girls, underage pregnancies and poor child spacing.
- Poor IYCF practice.
- Poor household food security and diet.
- Marginalization of Somali minorities which reportedly hinders their access to opportunities.
- Poor access to on-going humanitarian services and resilience programmes (due to distance, discrimination in service delivery or lack of awareness). Standalone projects seem to have little impact on acute malnutrition.

These factors are interconnected, as summarized on the causal pathway.



4. Recommendations

1. Increase household access to basic health, nutrition, WASH and education services, especially amongst minority communities.
2. Support income generation activities and opportunities for minority families in particular.
3. Explore ways to increase cash flow into Mogadishu IDP settlements in a sustainable manner. For example:
 - Explore options to open up markets in the settlements where IDPs trade among themselves
 - Improve IDP business and vocational skills
 - Help ensure that vulnerable community members have access to formal education, especially women and children.
 - Consider establishing Cash Transfer Programmes that specifically target Mogadishu IDPs, including issuance of revolving funds or loans to support new businesses.
4. Reduce the high incidence of childhood disease:
 - Ensure local accessibility to immunization services and MCHs, to better control communicable disease.
 - Ensure adequate WASH facilities and actively promote improved hygiene by raising awareness on the importance of personal and environmental hygiene.
 - Ensure appropriate health and nutrition education and promotion.
 - Strengthen the quality of health services e.g. train health personnel to diagnose and treat simple ailments, train staff on ethical service delivery including discriminating against patients from particular backgrounds or locations and ensure the availability of essential drugs.
5. Improve the public health environment:
 - Sanitation: Support community members to keep their environment clean, e.g. to bury children's stool and empty full latrines using exhausters, on a regular basis.. Provide the necessary equipment.
 - Water: Support the provision of adequate WASH facilities, e.g. by providing basic instruments to dig (for urban settlements where shallow wells are available), as well as helping IDPs access water tanks, jerry cans (for water storage), taps, pipes and aqua-tabs.
 - Hygiene: Run Nutrition, Hygiene and Health Promotion (HNNP) programmes to raise awareness and foster improved hygiene in IDP communities .
6. Health care: Provide MCH programmes in IDP settlements, specifically for IDPs, to provide family planning services, EPI, assisted deliveries, pre-natal and ante-natal services. Ensure IDP access to outpatient services and hospitals with qualified personnel, drugs, and EPI supplies. Consider providing EPI services through the Madrasas where children congregate for lessons.
7. Improve the socio-care environment for women and children. Specific areas of focus to include:
 - Programmes to help reduce women's heavy workload so they are better able to care for children and themselves, e.g. through supporting Madrasas to offer day care for children left unattended while their mothers are working. Involve IDPs in managing and staffing such facilities.
 - Set up long term social and behavioural change initiatives to tackle questionable socio-cultural norms that impact negatively on health and nutrition. For example, FGM, beatings and rape against women and girls.
 - Raise awareness on the importance of child spacing and its significance to the health of women, infants and children.
 - Consider ways to effectively address the phenomenon of rising divorce rates and irresponsible husbands who often fail to support their families following divorce. The NCA study showed this to be critical to nutritional status as this happens more often when girls are forced to marry at a young age and bear children when they are neither physically, emotionally, or socially mature enough. Divorced young mothers (often 15 or 16 years old) are ill placed to meet the needs of their young children.
 - Explore potential support mechanisms to strengthen the wellbeing of vulnerable women, e.g. self-help groups and mobile counselling services. Consider a legal framework where complaints can be channelled and addressed.
 - Explore opportunities to strengthen the protection of vulnerable women and children in particular, e.g. enhancing security in settlements and making referrals to local Social Protection actors.
8. Health and nutrition related challenges associated with premature girls' marriage, underage pregnancies and poor child spacing are already known by the IDP communities. This provides a good starting point for related social and behavioural change initiatives.
9. Improve Infant and Young Child Feeding (IYCF)

- practices.
 - Implement related social and behavioural change programmes to strengthen awareness, tackle deeply rooted, negative beliefs and practices, and foster environments conducive to optimal IYCF.
 - Consider opportunities to establish local mentoring programmes which bring together positive deviants and young mothers or soon-to-be mothers, to enhance IYCF support and practice.
 - Explore ways of effectively engaging community and religious leaders (including grandmothers and other opinion leaders) in related promotion efforts.
10. Strengthen household food security, e.g. by enhancing the access of vulnerable community members, including minorities, to income generation and cash transfer programmes. Specifically target IDPs and women-headed households to enable them to access resources to improve their livelihoods.
 11. Improve household diets. Raise awareness on what constitutes an appropriate diet for the household, in particular for children under five years old, based on locally available resources.
 12. Increase IDP access to existing humanitarian services and resilience programmes. Address related issues of distance/ transport costs, discrimination in service delivery, lack of awareness and service quality.
 13. Adopt and advocate for more integrated service provision. Current stand-alone projects in IDP settlements are unlikely to have a significant impact due to the common lack of synergy with complementary programmes in other sectors. Nutrition, health and WASH services in particular should be integrated, to ensure a more holistic basic service package for vulnerable community members.
 14. Governance: Consider ways to effectively address the barriers that contribute to the further marginalization of Somali minorities, which hinder their access to opportunities to improve their own lives.

Case Study on the Impact of Early Marriage

Based on an interview by NCA Researcher, May 2015

Fatuma Ali* is a 13 year old girl living in one of the IDP settlements in Banadir Region Somalia. She married one year ago, conceived immediately and is now is a mother of a four month old baby boy. From pregnancy until the time of delivery Fatuma encountered a lot of problems. She suffered from normal sickness in pregnancy but also experienced sexual problems including painful sex, bleeding and infections. According to Fatuma however *“these were minor issues compared to what followed.”* While delivering her first baby she had great trouble because her pelvis was very narrow and the baby could not pass through. The TBA therefore used force to push the baby out and in the process one of the her legs became paralysed. According to Fatuma, early marriage is bad and causes severe problems including:

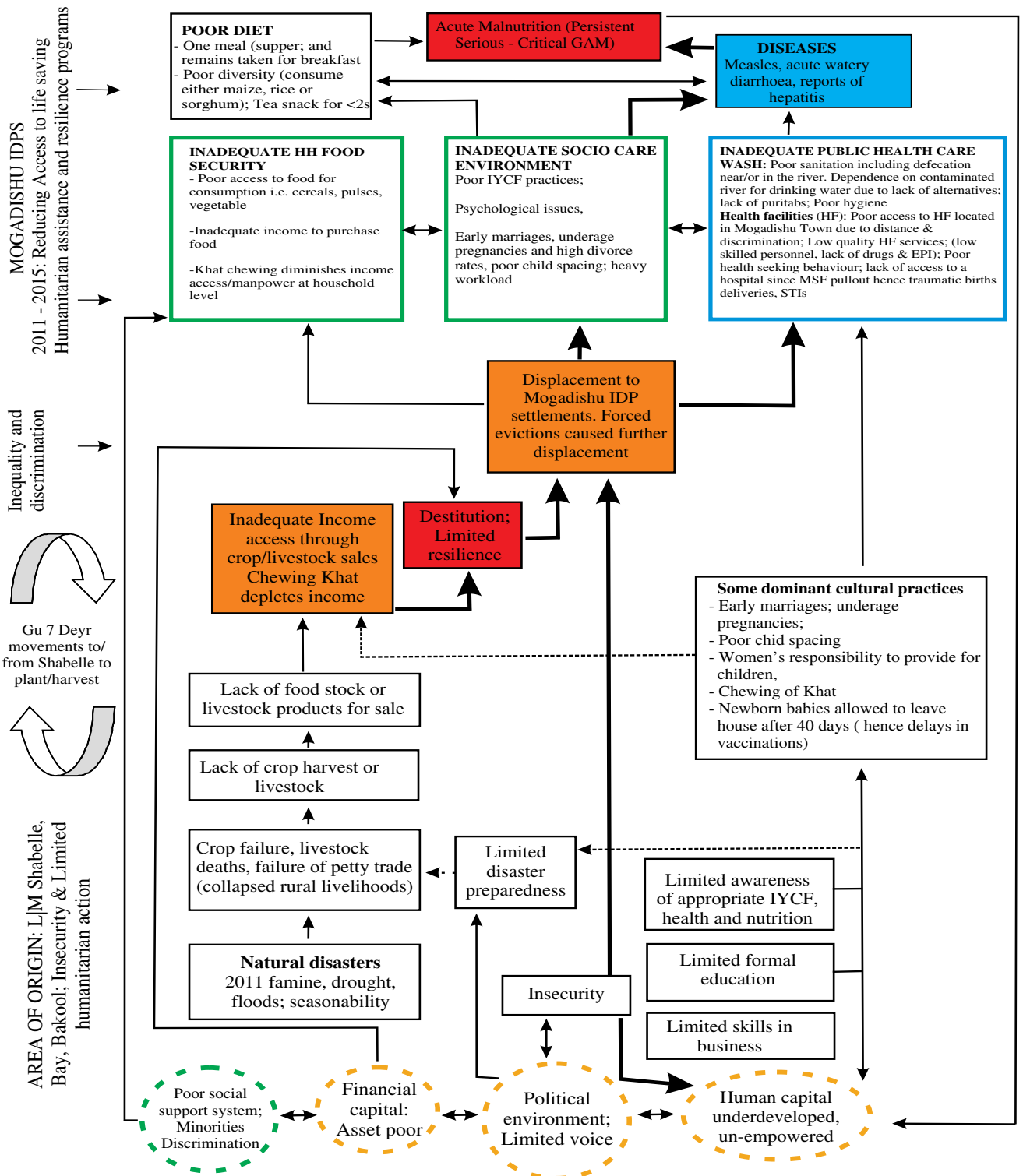
- Painful sex “I cry most of the time because it is so painful.”
- Bleeding and anaemia
- Sexually transmitted diseases
- Pelvic inflammation
- Difficult childbirth; Rupture of the uterus
- Lack of freedom because one has to look after the baby mostly alone
- Poor care for the baby and inability to do what is needed in the home
- Lack of personal development and education
- Mental and emotional stress in girl brides is high because they are not old enough to cope with maternal, marital or in law issues.

‘I do not have a future. I also do not know what will eventually become of my child...I would not wish what I have become on anybody’ says Fatuma sadly bottling feeding her son.

*Names have been changed.

5. Causal Pathway - Mogadishu IDP Settlements

KEY Factors that impact



NCA Study among Mogadishu Urban Communities

3

Lead NCA Researcher

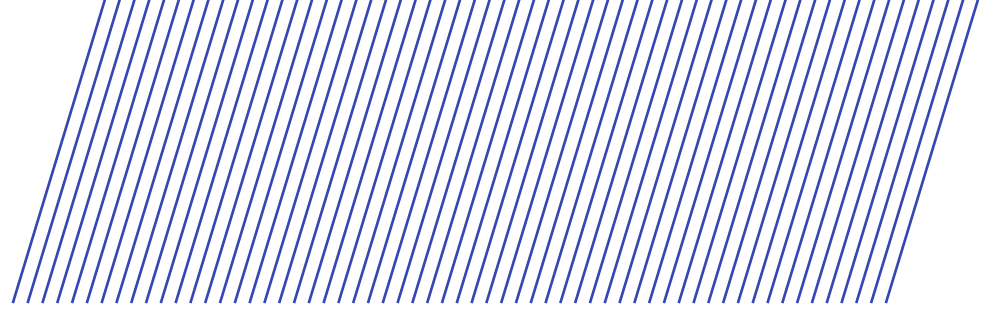
Ahono Busili

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Mogadishu

Urban Communities

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Executive Summary

Persistent insecurity, recurrent drought, including the 2011 famine, and floods have resulted in a continued influx of Internally Displaced Persons (IDPs) into Mogadishu city between 2011 and 2015. Many of the displaced have been absorbed directly into Mogadishu's urban households. Others, especially those from the Somali minorities, reside in small settlements dispersed within Mogadishu city. Following the 2011 famine, massive humanitarian assistance facilitated IDPs' access to health care and education for those that had been absorbed into urban households. However, since 2013 access to humanitarian assistance has declined and the burden of meeting the basic needs of vulnerable dependents rests mainly with host urban dwellers and the IDPs themselves. The urban poor, comprised of Somali minority community members, are affected as they have to compete with IDPs for limited resources.

Despite this situation, Mogadishu urban livelihood zone maintains an Alert nutrition phase with Global Acute Malnutrition (GAM) rates of 5-10% (WHZ). It can therefore be seen as a relatively positive community nutrition-wise, or a "positive deviant" community in South Central Somalia, from which other communities and service providers can learn (UN FAO/FSNAU 2015 reports).

Between March and November 2015, the SNS Consortium in collaboration with the World Food Programme (WFP) conducted a NCA study among Mogadishu's urban poor population. The purpose of the study was to establish:

1. Core factors that make Mogadishu urban livelihood zone a relatively positive community nutrition-wise.
2. Core factors that contribute to acute malnutrition in Mogadishu urban communities.

Key findings and recommendations of the NCA study among Mogadishu urban poor communities are provided below.

Key Findings

According to the urban poor communities assessed and the NCA field researchers involved, core factors that enhance positive deviance among most Mogadishu residents, irrespective of their wealth group, are:

1. Strong social networks among most residents that cushion vulnerable members unable to provide for

themselves. Networking is a way of life in Mogadishu, especially for the middle and better off groups with good nutritional status, whereby useful information is widely shared amongst and used by clan members.

2. Social support remains strong among most Mogadishu residents. For example, wage earners typically give up to 40% of their income to support other family members.
3. Most of Mogadishu's urban residents are educated beyond primary level, have been exposed to and are generally aware of appropriate health and nutrition practices.
4. Many households in the middle and better off wealth groups have family members in the diaspora, who provide remittances to complement locally generated income.
5. Most Mogadishu urban residents have entrepreneurial skills that help them thrive in an urban economy, in self-created small businesses or elsewhere.
6. The socio-care environment for women and children among the middle and better off is relatively good. In these groups, women generally stay home and provide child care, while men work to provide for their families.
7. Child spacing among Mogadishu urban residents is generally approximately every two years. This is particularly notable amongst educated parents who more often practice family planning, in contrast to most communities in South Central Somalia.

At the same time, the Mogadishu urban poor face particular challenges. NCA findings illustrate that the Mogadishu population affected by malnutrition is the poor, comprising of Somali minorities. Core factors contributing to acute malnutrition among Mogadishu's urban poor include:

1. Low access to income, the main source of which is casual labour.
2. High poverty levels. The NCA research communities ranked 60% of their own community members as poor and unable to access adequate health and education services.¹ The NCA study also found that minority clan members rarely have relatives overseas to send remittances home.
3. Inadequate networks and social support systems, leaving vulnerable families without support even when unable to provide for themselves.

1. In the NCA Ranking exercise completed in the field

4. Weak IYCF practices. Respondent households typically consume one meal a day (or two at most for children). As well, breastfeeding is rarely exclusive and ceases early, usually when the mother conceives again some 3 to 12 months after delivery. This is fuelled by dominant beliefs including that mothers “lack enough breast milk” and that “I don’t want my husband to leave me because of fallen breasts”. Inadequate breastfeeding also fuels the negative practice of bottle feeding, further increasing vulnerability to malnutrition.
 5. High disease incidences, mainly measles, Acute Watery Diarrhoea (AWD), malaria and Acute Respiratory Infections (ARIs), especially in children under five.
 6. A poor socio-care environment for women and children, combined with heavy women’s workloads. The impact of FGM, early marriage, underage pregnancies and traumatic child birth adversely affect many girls and women. At the same time, many men from urban poor households also take khat or other drugs regularly and consequently contribute little to the household.
 7. Somali Minorities living in Mogadishu have low literacy levels and display a low awareness of appropriate nutrition and health practices.
7. Address weak IYCF practices that hinder nutrition:
 - i. Develop long term social and behavioural change programmes to raise awareness and promote optimal IYCF. For example, to discourage giving new-born babies sugary water soon after birth.
 - Foster enabling environments to facilitate appropriate IYCF at community level. For example, day care centres for infants and young children while their mothers are working.
 - Establish mentorship programmes to enable young mothers and soon-to-be mothers to learn from positive role models within the community.
 8. Address negative socio-cultural beliefs and practices which affect infant and child health and nutrition, through long term social and behavioural change programmes. For example, the belief that children should not be immunized within forty days of birth and the use of burning and cuts to accelerate healing in children.
 9. Improve the socio-care environment for vulnerable urban women and children.
 - Strengthen awareness about the dangers of FGM: NCA findings show that men and women, older women and community leaders all consider FGM to endanger girls and believe that it impacts on health and nutritional well-being. This provides important openings, for example, to work with relevant actors to support social change efforts towards more positive rites of passage.
 - Tackle early age marriage for girls, premature childbearing and traumatic deliveries: Develop and enforce laws against early marriage for girls. As about 80% of mothers deliver with the assistance of Traditional Birth Attendants (TBAs), barriers that hinder women from using official health services need to be explored. For example, MOH supported midwives need a stronger presence among Mogadishu urban poor communities to ensure appropriate antenatal care and safe childbirth. As well, the MOH could be supported to provide ambulances with skilled health personnel, to service affected communities and take those in need to hospital.
 - Raise awareness on the benefits of child spacing to family health. Promote culturally acceptable options.
 - Enhance the security and protection of girls and women. For example, liaising with key protection actors and involving local leaders in efforts to tackle factors that contribute to violence and rape.
 10. Ensure access to Maternal and Child Health programmes where antenatal care, postnatal care and immunization services can be accessed and common diseases treated, e.g. through mobile clinics.
 11. Ensure adequate WASH facilities and Nutrition, Hygiene and Health Promotion (NHHP) initiatives.² As well as fostering hygiene, increase household access to wells and taps would reduce the time women spend fetching water and liberate time for

the urban poor, e.g. for self-help groups.

Recommendations

1. Strengthen programmes that increase income generation opportunities among the vulnerable urban poor. These might include (i) Cash Transfer programmes which could be undertaken between July and September during sea port closure as a result of monsoon winds, which decreases casual job opportunities; (ii) Provide business skills training; (iii) Explore ways to address social or discriminatory barriers that limit the poor from participating in retail and trade activity.
2. As 90-100% of Mogadishu resident household food is purchased, stronger income generation opportunities should enhance household access to food. Related programmes need to target women in particular.
3. Support the formation of social support groups where members can exchange information and address common concerns. Provide skills training where feasible.
4. Consider policy decisions (at employer, donor and government levels) to actively foster the employment of members of the urban poor, in particular of minority clan members, who voiced significant concerns about widespread discrimination and lack of access to services. For example, while women from some communities jump the queue at health facilities and spend a relatively long time with health staff, those interviewed shared experiences of having to spend far longer in health facility queues and being granted very little time with health personnel.
5. Strengthen and expand resilience programmes to address long term poverty.
6. Provide Sharia-compliant credit facilities or grants to

² The UNICEF developed NHHP Manual and resources are widely available and already translated into Somali.

child care.

12. Explore options to strengthen poor family access to health services, especially for childbirth. For example, negotiate public-private partnerships with hospitals to provide subsidized services to the poor.
13. Improve the targeting of beneficiaries in lifesaving programmes, to ensure that the basic needs of the most vulnerable, including the urban poor, are addressed.
14. Research the impact of men's khat chewing on family nutritional status and child care.





Context

1.1 Background

Mogadishu is the capital city of Somalia. In 2005 it had a population size of 901,183 (UNDP 2005 Population Figures).

1.2 Introduction to Community Studied

The NCA qualitative study in Mogadishu assessed four urban poor settlements, selected due to their extreme vulnerability. These were Tima Ade and Obosibo Halane in Wadajir District and Yusuf Alkaunei and Bula Makarey in Bondeere District

See Introduction section for detail on the NCA Methodology used across the NCA study and adapted to particular NCA contexts as appropriate.

The assessed urban poor communities mainly constitute Somali minorities. Their rented shelters are dispersed within Mogadishu city. The Somali minority community lack access to better off social networks of friends or relatives in the city, or overseas, to support them. Discussions with communities revealed that their representation in government is limited, mainly due to the relatively small size of their community.

The communities studied largely rely on casual work for their income and purchase 90-100% of their food. Hence their survival depends on access to casual labour opportunities which are limited and seasonal. These factors contribute to vulnerability and malnutrition and increase reliance on humanitarian support to bridge basic needs. The research also revealed that there are positive deviants within the studied community who are managing to keep their children healthy and well nourished who others can learn from. A summary of practices of this population group are explored in the report.

1.3 Nutrition Situation

Twelve nutrition surveys have been conducted among the Banadir Urban poor between 2011 and 2015. Of these, three have reported a GAM prevalence of $\geq 15\%$; five have recorded a GAM level of 10-14.9% while the remaining four reported GAM prevalence of between 5-9.9%. The highest (21.1%) levels of acute malnutrition and Severe Acute Malnutrition (SAM) prevalence of 5.6% were recorded in 2011, at the peak of the famine in Southern Somalia (See chart 1 below). Although there have been periods when GAM prevalence was below 10%, overall, reports reviewed show a Median GAM prevalence of 10.4% and SAM prevalence of 1.7%. A similar Median GAM prevalence of 10.1% has been reported in the last two and half years. This reflects persistence of Serious levels of acute malnutrition among the Banadir urban poor in the past five years, based on WHO classification. The stable nutrition situation results from an improved security situation, which has increased economic activities and sources of income for food. It also enables humanitarian actor access, many of whom deliver services including the treatment of severe and moderate acutely malnourished children, the provision of food aid and the promotion of IYCF (SNS 2014, FSNAU Deyr/Gu 2014b).

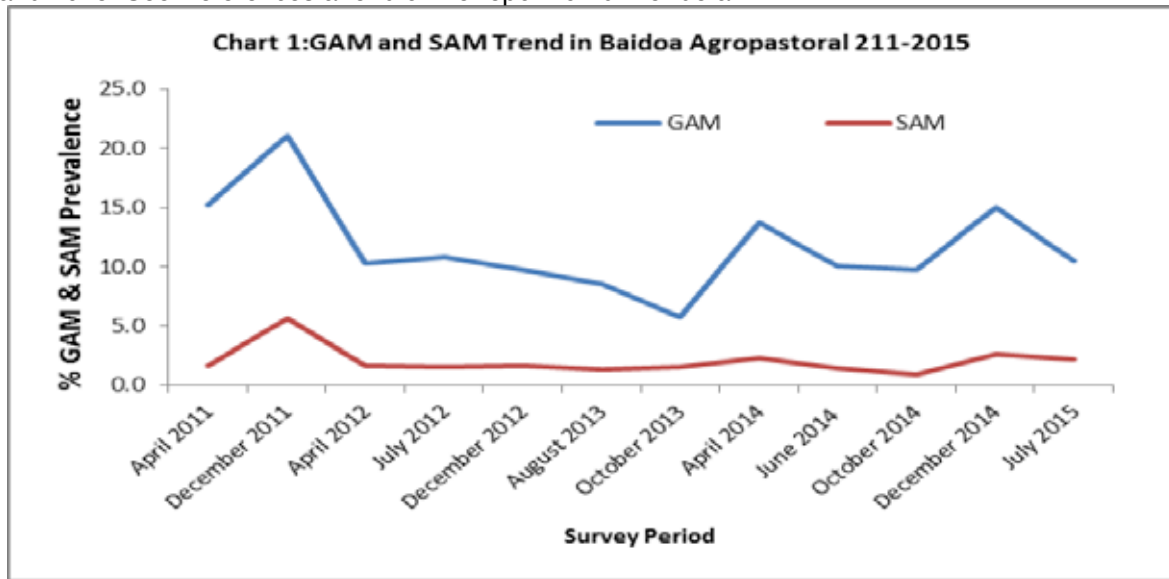
However, there is room for further improvement of the nutrition situation through concerted efforts including improved coverage of health and nutrition services. The SQUEAC coverage survey conducted by the SNS Consortium in March 2015 estimated SAM treatment programme coverage at 53.3%, which is below the 70% SPHERE standard for urban CMAM programmes.

No comprehensive micronutrient study has been conducted among Banadir IDPs for the last five years. In addition, the only available micronutrient study conducted by FSNAU and partners in Somalia in 2009 did not include Banadir for security reasons. However, coverage of Vitamin A supplementation (a proxy indicator of vitamin A status) indicates a low median coverage of 49% (below the SPHERE standard), from nine FSNAU led assessments between 2010 and 2014.

Infant and Young Child Feeding (IYCF): The latest SNS SMART survey among the Banadir urban poor (December 2014) records an exclusive breastfeeding

Figure 1: GAM and SAM Trend in Mogadishu Urban Communities 2011-2015

Note: All figures and graphs included in the full NCA Report come from FSNAU studies between 2011 and 2015. See References at end of the report for further detail.



rate of 26.8%; continued breastfeeding to one year at 55% and continued breastfeeding to two years at 32.4%. Approximately 72% of children are introduced to complementary food at the recommended age of six months, 52.7% of children meet the minimum dietary diversity requirement, while 67.7% meet minimum meal feeding frequency. However, only 39.8% of urban poor children meet the minimum acceptable diets for their age.³ Although these results indicate relatively strong IYCF among the Banadir urban poor in comparison with other SC Somalia locations, significant improvement is still needed. The relatively better picture could be attributed to robust IYCF support and promotion activities by humanitarian actors like CWW, ACF, SCI, and CISP (SNS, 2014). The positive impact of optimal IYCF on the health and nutrition status of children is well documented (WHO, 2009, The Lancet, 2008). In sum, too many Banadir urban poor community children remain vulnerable to malnutrition.

health facilities in this period, compared to 48.2% from Mogadishu's IDP settlements. 35.5% of the urban poor sought assistance directly from pharmacies where they bought drugs.

Access to sanitation facilities (latrines) and water from sources considered safe are the only WASH indicators captured in the 2014 to 2015 SNS and FSNAU reports reviewed. They showed that most (>80%) urban poor households have access to latrines, either household or community owned (SNS, 2014). In addition, over 80% of respondents accessed water from tap, a source considered safe (ibid.). Safe water reduces incidences of waterborne diseases, as does the safe disposal of excreta which minimizes risks of food and water contamination. The median prevalence of diarrhoea over the last five years is 5.7%, however the SNS December 2014 survey reported a prevalence of >20%, indicating the need for continued and integrated WASH support and promotion efforts.

1.4 Health and WASH Situation

Standardized Monitoring and Assessment of Relief and Transition (SMART) nutrition surveys conducted in Banadir region by SNS (December 2014), reported a 33.9% child morbidity rate in the two weeks preceding the study. Fever, ARI and diarrhoea were the most prevalent illnesses. As well, measles immunisation rates of 77.5% were reported among the urban poor and 60.5% among Mogadishu IDPs.

Health seeking behaviour was reportedly low. 41.3% of mothers with sick children from Mogadishu's urban poor communities reportedly sought treatment from

³ This is a composite indicator which combines meal frequency and food diversity

1.5. Food Security Situation

A review of key food security assessment reports (FSNAU and partners) show a generally stable Stressed food security situation in Banadir urban communities, from 2011 to Gu 2015. However, this does not mean that all population groups have experienced the same, stable food security. According to IPC version 2, key criteria for area classification is that 20% of the population in the area of analysis must be in 'that phase or worse'; based on household group classification. This means that even when a specific group is in Crisis but they make up less than 20% of the

total population, the entire livelihood area would not be classified as Crisis. IPC food security area classification in Banadir takes the entire urban population (excluding IDPs) into consideration when determining the ultimate IPC phase classification. This has served to blur the actual food security status of the urban poor, as seen in a critical review of the number of people experiencing food security crisis, i.e. those in Crisis or Emergency IPC phases.

As data from Deyr 2011 to Gu 2015 shows, some 15,000-60,000 urban poor people in Banadir have been identified as facing Crisis food insecurity at different times in the last five years. In addition, 5,000-60,000 urban poor people have been classified in the Emergency food insecurity phase. The highest number of urban poor facing food crisis was in the Deyr 2011, when 50,000 people were in Crisis and 60,000 were in Emergency. As demonstrated in the table below, from Gu 2013 to Gu 2014 no Banadir urban population was in either Crisis or Emergency food security phase. Of concern though is the increasing trend of the urban poor population facing food insecurity, as reported in both Deyr 2014 and Gu 2015, which highlights the instability

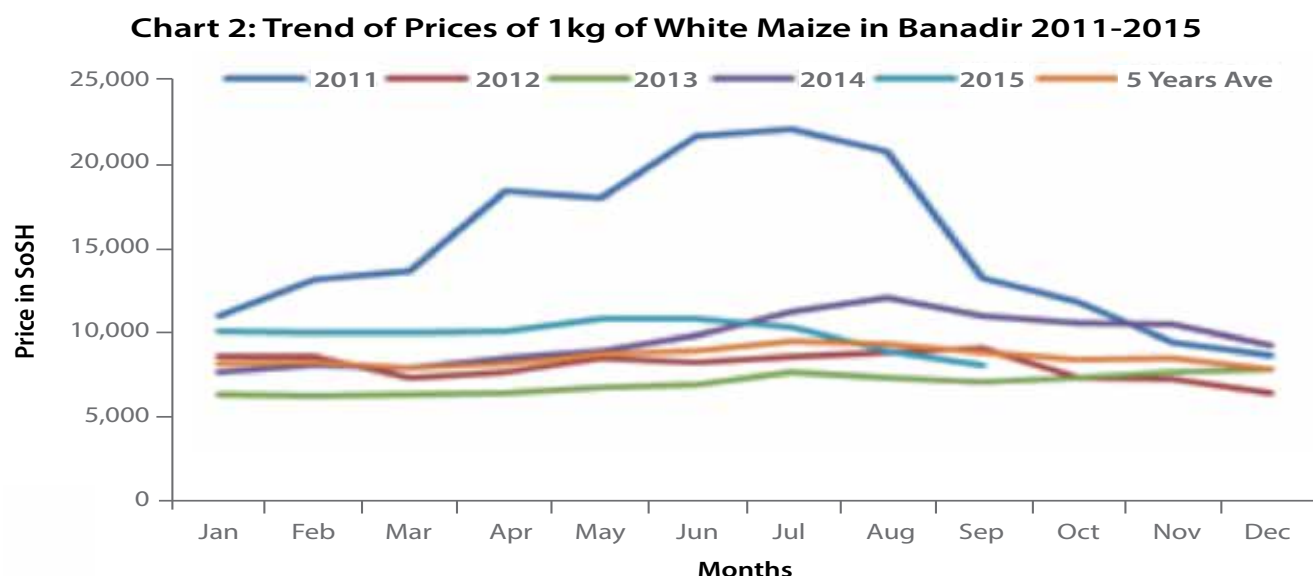
of the urban poor. The overall better food security situation in urban areas results from reduced costs of food and other basic goods and services, sustained but gradual increases in income, and the availability of labour opportunities since Gu 2011 (FSNAU Post Gu 2013a). Relative improvements in security since 2011 have also enhanced the above factors.

SNS and FSNAU survey reports reviewed identify numerous factors which continue to influence the food security status of the Banadir urban poor. According to the Mogadishu Special Report (FSANU, 2012), the majority (60-90%) of the Banadir urban population rely on market food purchase as their main source of food. Others, especially the poor, depend on humanitarian assistance (4-25%), credit (5-10%) and gifts (2-12%) for food. Although they rely on market food purchase, the urban poor typically have low income levels and little diversity as they rely on unstable, low paying casual labour (FSNAU Post Gu and Deyr 2014a). Figure 2 below shows the trend of prices of 1 kg. of white Maize (main staple) in Banadir between 2011 and 2015 (FSNAU Market data, November 2015).

Table 1: Trend of Number of People in Crisis - 2011-2015

Trend of number of people in Crisis and Emergency Food Insecurity among Banadir Urban poor 2011-2015								
Months	December 2011	July 2012	December 2012	July 2013	December 2013	July 2014	December 2014	July 2015
No. in Crisis	50,000	60,000	15,000	0	0	0	15,000	18,000
No. in Emergency	60,000	0	0	0	0	0	5,000	9,000

Figure 2: Trend of Prices of 1Kg of White Maize in Banadir 2011-2015

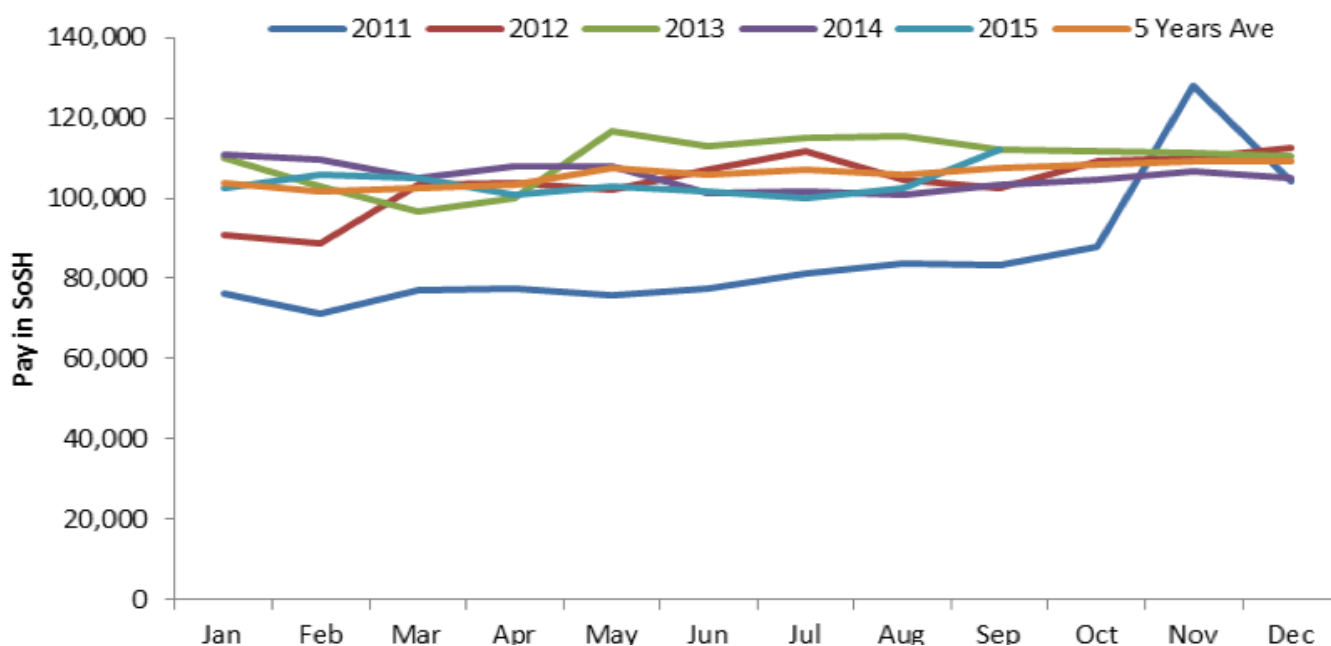


Main income sources for the urban poor include casual labour (carrying goods and construction work), skilled labour, petty trade, self-employment and, to a lesser extent, remittances (FSNAU Gu 2013a). Moreover, the urban poor co-exist or interact with IDPs in Banadir, to benefit from humanitarian assistance. One disadvantage of this co-existence is competition for limited casual labour opportunities. Additionally, the urban poor often take advantage of rainy seasons and seek farm labour opportunities in the nearby rural agropastoral livelihood zones of Middle and Lower Shabelle (FSNAU Gu, 2015). Besides seeking farm labour, some rent agricultural pieces of land where they farm to supplement family food and income (FSNAU, Gu 2012). Asset ownership is inevitably a limitation among the urban poor. Typical assets include chickens, a donkey/ox and carts, agricultural tools and mobile phones, plus some domestic assets like beds and chairs (FSNAU, Gu 2011/13a). Poor asset ownership means the urban poor have few or no assets to dispose of if they need income to purchase food in scarce seasons.

The Banadir urban poor spend a significant proportion of their income on food. FSNAU surveys (Gu 2013 and Gu 2015) showed that 75 to 86% of household income is spent on food. The ability to access food is determined by household purchasing power, measured through the Term of Trade (ToT) between casual labour wage rates and cereal prices. Therefore, the availability of casual

labour and daily labour rates, as well as food prices, are key determinants of the ability of the Banadir urban poor to access food (FSNAU, Gu 2013a). For example, improvements in food security in urban areas in Gu 2013 (FSNAU) were linked to the reduction in food prices and other basic goods and services, sustained but gradual increases in income, and the availability of labour opportunities from January to July 2013. The ToT of casual labour wage rates and cereal prices varies with season and is better when daily rates increase and food prices decrease. For example, in July 2012, the urban poor could purchase 9 to 16 kgs. of cereal with one day's casual labour wage, far more than the 7 to 12 kgs. of cereals they could purchase in January 2012 (FSNAU, Gu 2012a). Figure 3 below shows trends in the daily labour rate in Banadir from 2011 to 2015 (FSNAU Market data, November 2015). In view of low income levels, the urban poor like their IDP counterparts, often do not meet their minimum food (and non-food) requirements. To minimize the food shortfall, the urban poor are reported to have high food-related debts. They also adapt different coping strategies. In July 2012, 22% of the Banadir urban poor adapted severe to very severe coping strategies, including reducing their number of meals, reducing food consumption by adults, relying on donations, sending children to eat elsewhere, begging, and missing food for entire days (FSNAU, Gu 2012a).

Figure 3: Trend of Daily Labor Rate in Banadir 2011-2015



1.6 Humanitarian Support

SMART nutrition surveys conducted in Banadir region by SNS (December 2014), reported a 33.9% child morbidity rate in the two weeks preceding the study. Fever, ARI and diarrhoea were the most prevalent illnesses. As well, measles immunisation rates of 77.5% were reported among the urban poor and 60.5% among Mogadishu IDPs.

Health seeking behaviour was reportedly low. 41.3% of mothers with sick children from Mogadishu's urban poor communities reportedly sought treatment from health facilities in this period, compared to 48.2% from Mogadishu's IDP settlements. 35.5% of the urban poor however sought assistance directly from pharmacies where they also bought drugs.

Humanitarian assistance	Organizations
OTP	CWW, ACF, SCI
MCHN	CISP and SCI
Targeted Supplementary Feeding (TSFP)	SCI, Mercy USA
IYCF	SACCID, ACF, SCI, CONCERN, ACF, ANPPCAN
Health care	CWW, Mercy USA, IMC, WARDI, CPD/SCI, SWISS-KALMO, ZAMZAM, SHARDO, MEDAIR, HIJRA
WASH	DRC, HINNA, CESVI, WARDI, MERCY CORPS, ACF, SOPHPA, SCI/CPD, ARC, IOM, CARE/HIJRA, CONCERN
Food For Assets (FFA)	CCS, New ways, OSPAD, SORRDO, KAASHIF and HIMILO
Education and Vocational Training	ADRA, FENPS, CISP, NRC, MC, SCC, IIDA/ CONCERN

2. Findings and Analysis

The NCA findings and analysis on typical livelihood characteristics of the assessed community are provided below. Also reported are findings and analysis of the historical timeline of events, seasonal calendar and key factors affecting the nutritional situation in Mogadishu urban livelihood zone.

2.1 Typical Livelihood Characteristics of Community

The NCA study findings in Mogadishu show that the urban community mostly purchase food. Casual labour is the main source of income, while food purchase constitutes the main expenditure.

Table 2: Typical livelihood characteristics

Main source of food	%	Analysis
Purchase	90-100	The main source of food in Mogadishu's urban livelihood zone is purchase (90-100%). A few people receive food for work. As is typical with urban livelihoods access to regular income is crucial for survival.
Food for Work (FFW)	0-10	
Main source of income		
Casual labour	38-42	The main source of income in Mogadishu is casual labour. Other important sources of income are small businesses or petty trade and employment. Remittances are also important contributing 5-10% of income.
Small business/ petty trade	20-23	
Employment	20-22	
Remittance	5-10	
Fishing	1-3	
Other (begging, Zakat)		
Income expenditure		
Food and milk	55-60	Most of the income is spent on food and milk, followed by house rent and utilities.
House rent	18-20	
Water and electricity bills	4-5	
Education	4-5	
Medical	4.5-5	
Savings	2-3	
Fundraising from relatives	1.5-2	

Wealth Ranking

The NCA wealth ranking exercise among the Mogadishu urban poor classified 60-61% of the population as poor, 30-32% as middle and 5-9% as better off.

Table 3: Wealth Ranking

Wealth Group	Poor	Middle	Better-off
Proportion (%)	60-61	30-32	5-9

Table 4: Factors Used in Wealth Ranking

Factors	Profile of households in middle or better off wealth groups	Profile of poor households
Income access - most people access money through casual labour (about 45%), petty trade (20%) & employment (20%)	Good household income access. The middle have gainful employment or businesses, the better off also have income generating assets such as rental units.	Low income earners (casual work such as construction) or jobless.
Food access and ability to eat at least 2 meals a day	Can access food and consume diet with diverse food groups at least two times a day.	No food stocks. Food access is a problem and most consume only 1 meal a day of carbohydrate and oil. Typical carbohydrate diet (anjera with ambulo) boiled maize. Field crop is not in good shape.
Public health care environment - sanitation, health seeking behaviour, level of awareness or formal education	Good public health care environment. Good health. A clean environment and personal hygiene. Access to health care and immunisation. Good hygiene and sanitation. Majority are educated.	Poor levels of immunisation. Lack of money, even to take children for treatment when they are sick. Most households unable to access health care. Most household heads chew khat or are on drugs. Poor sanitation and hygiene. Poor public health care environment. Poor living conditions & personal hygiene.
Social support system	Good social support system. Those working can give up-to 40% of income to support others. This cushions those who are vulnerable. Also able to receive support when needed.	Very little (if any) support. This group have few relatives or friends in town. Mostly minorities, in-migrants, orphans, single parent families, broken homes.
Housing conditions including ability to pay rent	Good shelter/houses with toilets or latrines. The better off have massive units. The middle rent good houses.	Households with people with chronic illnesses. Majority are unable to raise rent for good shelter and live in poor conditions.

2.2 Historical Timeline of Events

Historical events that have impacted on nutrition between 2011 and 2015 include drought, insecurity and the reduction of humanitarian presence within the city since 2013. The 2011 famine led to a massive influx of IDPs into the city. Insecurity that is characterized by persistent fighting between militia and the central government in Mogadishu has had a significant impact on the population. The burning of Bakara market in

2013 resulted in the loss of business investments and reduced casual labour opportunities. Since 2013 the presence of humanitarian services in Mogadishu has reduced which has limited the access of residents to public services mainly education, health and nutrition. Insecurity also hinders investments. The key events are summarized in the table below.

Year	Event	Impact
2011	<ul style="list-style-type: none"> - Drought - UN declares famine in parts of the South in July 2011 - Insecurity in all of the South Central Zone (SCZ) 	<ul style="list-style-type: none"> • Displacements into Mogadishu • Food shortages, high food prices, overcrowding • High dependency (c.g. households take in 4+ people) • The cost of living for Mogadishu urban dwellers becomes high • IDP settlements are dispersed within Mogadishu city • Humanitarian support and diaspora remittances mitigate the situation
2012	<ul style="list-style-type: none"> - UN declares end of famine in February 2012 - Fighting and explosions in SCZ and Mogadishu 	<ul style="list-style-type: none"> • Displacements of people from rural areas into Mogadishu continues. Those displaced previously do not return • Dependency continues, overstretched social support, high cost of living • Increased IDP settlements in Mogadishu • Measles and cholera outbreaks especially in the rainy season • Humanitarian support and diaspora remittances mitigated the situation
2013	<ul style="list-style-type: none"> - Bakara market burnt - Floods - Scale down of humanitarian activities following the (i) Rationalization of nutrition services (ii) MSF pull out of Mogadishu (iii) Government position on humanitarian assistance - Insecurity in SCZ 	<ul style="list-style-type: none"> • Bakara market burning and flooding affects business investments, reduces casual work opportunities and income access for urban dwellers • Exit of many NGOs from Mogadishu reduces access to income through employment/business opportunities and humanitarian services mostly nutrition and health care services • The role of humanitarian support in mitigating the situation is perceived to have reduced as access to services is limited • High dependency, high food prices, high cost of living resulting in stretched social support • Displacement into Mogadishu continue
2014/15	<ul style="list-style-type: none"> - Insecurity in Mogadishu City and SCZ is prevalent. Violence against women and girls including rape - Flooding 	<ul style="list-style-type: none"> • Reduced level of investment and businesses suffer • Sickneses and suffering for the affected women and children • The role of humanitarian support in mitigating the situation is low and access to services is limited

2.3 Seasonal Calendar

Table 5: Seasonal Calendar

H = High; M=Medium; L = low; U = unknown N:None		Months of the year (January to December)											
		J	F	M	A	M	J	J	A	S	O	N	D
Acute malnutrition (wasting)		H	H	H	M	M	M	M	H	H	L	L	L
Peak of admissions in nutrition centres		H	H	H	M	M	M	M	M	H	H	L	L
Health	Diarrhoea	H	H	H	M	M	L	M	M	M	M	L	L
	Malaria	L	L	L	H	H	H	H	H	H	H	L	L
	Acute Respiratory Infections	H	H	H	M	M	M	H	H	H	M	L	L
Hunger season		H	H	H	M	L	L	M	H	H	H	L	L
Milk availability		L	L	L	M	H	M	M	L	L	M	H	H
Food and income access	Food market prices	H	H	H	M	M	M	M	H	H	H	M	L
	Farm employment opportunities	N	N	N	N	N	N	N	N	N	N	N	N
	Temporary jobs opportunities	H/L	H/L	H	M	M	M	L	L	L	L	H	H
	Farming labour	N	N	N	N	N	N	N	N	N	N	N	N
Movements and family organization	Moving to farming villages	N	N	N	N	N	N	N	N	N	N	N	N
	Livestock transhumance (seasonal movement of people with their livestock)	N	N	N	N	N	N	N	N	N	N	N	N
	Harvests	N	N	N	N	N	N	N	N	N	N	N	N
	Harvest (staple food)	N	N	N	N	N	N	N	N	N	N	N	N
	Harvest wild fruits	N	N	N	N	N	N	N	N	N	N	N	N
	Harvest vegetables	N	N	N	N	N	N	N	N	N	N	N	N

Seasonality impacts significantly on acute malnutrition. Analysis of the NCA findings shows consistency between peaks of acute malnutrition with those of diarrheal diseases and ARI, the hungry season and milk availability (Table 5 above).

The quotes below highlight the impact of seasonality on nutrition.

“July to September show the worst prevalence of acute malnutrition. There are no imports or exports at this time because the monsoon winds are heavy. There is also no fishing. This makes many casual labourers go without a daily wage. Food prices are very high. Additionally, at this time there is rainfall and contamination of water causing diarrhoea. The wind also increases ARI” (NGO worker).

“Because it is the rainy season, there are a lot of mosquitos. Most of our community members do not use mosquito nets. Some say they do not have money to buy the nets, while others do not know the value of the nets... This means malaria is rampant when it rains” (Supervisor at the ACF Stabilization Centre (SC)).

“In the Jilaal , it is dry. There is no milk or water, therefore children cannot get a good diet” (mother with a malnourished child).

NCA findings further show that there are no seasonal movements of populations which are characteristic of rural livelihoods, confirming that the assessed population is purely urban.

2.4 Local Definitions and Understanding of Malnutrition

The local term for malnutrition is “*nafaqo*”. *Nafaqo* is well understood among the assessed communities. FGDs with mothers of reproductive age, boys and girls, community leaders and health workers all associated malnutrition with a child not “having nourishing food” or with “Sickness for a long time”, “being hungry” or “starvation”.

2.5 Key Factors Contributing to Acute Malnutrition

2.5.1. Lack of income and poverty

According to the NCA findings, lack of income is the most important factor contributing to acute malnutrition. This is because adequate and sustainable income

access enables households to access a good diet, food, health care and education. The assessed population comprised the urban poor which generally has limited access to casual labour opportunities and lacks skills to access formal employment. Many households are headed by single parents (widowed or divorced) who are vulnerable and have few income options.

According to NCA debrief sessions, most men from urban poor households also take khat or drugs and do not contribute adequately to household needs. *“Many of the women complain that their husbands are away most of the nights chewing khat”* (a researcher).

Income access is at its worst in the July to September period when there are monsoon winds that hinder sea movements and therefore imports and exports. This also affects access to casual labour opportunities at the port. Focus Group Discussions (FGDs) highlighted the close relationship between lack of income and acute malnutrition. *“If they improve economically nutrition will be better, if the mother has knowledge of a balanced diet”* (a women’s group).

In order to cope various strategies are used. *“Some borrow money or seek support from relatives”* (an NGO worker). *“A few beg in the street. Some ask for help from the diaspora or move from the rented house”* (women’s support group). A participant in the fathers FGD group suggested having more markets in the city and to provide opportunities for the poor to buy and sell as well. In this study, poverty is perceived as the lack of assets that generate income in the absence of casual work. One of the problems facing the urban poor, based on the NCA findings, is poverty. Due to poverty, and lack of assets that generate income, the urban poor are unable to access basic essentials for living. *“Due to poverty people cannot afford nutritious food for their children and drugs for the family”* (a community leader). *“Many husbands are jobless so the mothers seek alternative sources of income. This causes children to lack care and leads to malnutrition”* (a religious leader).

“Due to poverty, they cannot afford basic nutritional food for their households including their children. The households in this community that have good nutrition and well-nourished children most of the year can afford basic nutritious meals for the family and they also have access to the health facility” (health worker).

2.5.2. Poor diet and inadequate food

NCA findings show that poor diet associated with poor dietary intake is a major cause of acute malnutrition among Mogadishu’s urban poor. According to mothers of reproductive age (with well-nourished children), a typical diet for the family comprises maize, rice, pasta, sorghum, beans, vegetables, water and tea.

The NCA debrief sessions in Mogadishu indicated that *“urban poor Somalis mainly consume carbohydrate (pasta, ugali, maize, rice) as they do not like vegetables, fruit, pulses. Tea with sugar is also commonly drunk”* (field researchers). Below is a typical diet of

Mogadishu's urban poor.-

Morning: Anjera

- Noon: Black tea with sugar as a snack for children under 2 years old. Powdered milk is added when available. Infants below one year are also bottle-fed on powdered milk when available
- Dinner: Anjera (the left-overs are consumed at breakfast).

Ranking the most common causes of acute malnutrition in children, mothers of malnourished children revealed "a lack of proper diet" at the top of the list and "a lack of proper health and nutrition services" as second. These mothers requested an OTP in their village, where malnutrition is a common problem, as they cannot afford proper food for their children.

"We need more nutrition centres to help those with malnourished children... food aid for the poor and food insecure households within the community would help to manage malnutrition" (FGD with mothers of malnourished children).

"Insufficient food during early childhood leads to malnutrition...as does a lack of knowledge about food" (mothers of reproductive age). In ranking the most significant determinants of nutrition status in young girls aged 14 –17 years of age in Mogadishu's urban environment in order of priority, "poor nutritional diet, low-income, early marriage, few services and stress" (NGO worker) were stated.

Access to a good diet therefore, together with access to household food security are very important determinants of nutrition status in the Mogadishu urban livelihood zone. These are linked to income access as food is mostly purchased.

2.5.3. Poor IYCF practices

Strong IYCF practices remain rare among Mogadishu's urban poor. This is despite ongoing efforts to improve awareness "religious leaders and teachers talk about issues of child care on the radio and TV" (a religious leader).

"I do not breastfeed due to lack of breast milk", "some don't know how to breastfeed" or have "ceased due to pregnancy" (FGDs with young mothers). Others do not feed for aesthetic reasons or tradition. *"I do not want my husband to leave me because of fallen breasts"* (FGDs with young mothers). *"If I breastfeed the babies my breast will go down so my husband will go out"* (a health facility worker).

Lack of breastfeeding of babies or not feeding them on demand due to "tradition", lack of awareness or aesthetic reasons, are some of the ongoing practices affecting nutrition. *"Most of the mothers are not breastfeeding properly. Some believe in tradition which says our clan is not allowed to feed the children from two breasts. So she breastfeeds on one breast only"* (a teacher).

Cultural erosion is also affecting IYCF practices. *"Initially mothers and children were fed with nutritious animal products like milk and meat and mothers were advised to breastfeed. Now they believe in powdered milk and bottle feeding their children"* (fathers' FGD of under-five year old children).

According to mothers with malnourished children, in the first hour of birth the infant's mouth is rubbed with honey and dates followed by breastfeeding and parental care. In response to why this is done, they said *"to make the child healthy both physically and mentally."* "Some community members believe that animal milk is better than breastfeeding and therefore encourage the new-born baby to be occasionally fed with animal milk instead of breastmilk" (a teacher). "The community usually gives within the first 8 hours of birth water and breastmilk" (mother of a malnourished child). Breastfeeds are nevertheless mostly provided on demand whenever the baby is with the mother.

"Breastfeeding is done when the child cries and demands milk... Breastfeeding is done every time" (a father).

"Food is introduced to the baby at the fifth month" (a father) or "at six months" (a TBA).

According to the majority of mothers with malnourished children, it is a socio-cultural norm that infants are not allowed to eat liver with the belief that if given he/she will take a long time to speak. Mothers leaving the homestead every day looking for casual labour has an effect on the feeding habits of the child. Mothers also stop breastfeeding when they get pregnant. This can range between 4 and 24 months after giving birth, but most often happens within the first year of the baby's life. At this stage, the baby begins to depend on the family diet, with tea as a snack (NCA debrief). These weak IYCF practices among Mogadishu's urban poor were highlighted in the NCA study. They include not initiating breastfeeding early (within an hour of birth), not exclusively breastfeeding for the first six months of a baby's life and not continuing to breastfeed for 24 months. On the other hand, however, feeding babies on demand is typically practiced when the mother is present in the house, providing openings for strengthened IYCF.

2.5.4 Diseases

Disease burden - According to NCA findings, common childhood diseases in Mogadishu are AWD, ARIs, measles and malaria. The prevalence of AWD and ARI accelerate and peak in the Jilaal and Hargar seasons. Malaria peaks in the rainy season and measles is not affected by seasonality.

"Measles doesn't depend on season. It's comes every time...on the other hand, diarrheal diseases increase significantly during the rainy season, but reach their peak in the following dry season. The reason is poor hygiene and contamination of water and food" (a health facility worker).

“In the rainy season there are a lot of mosquitoes. Most of our communities do not use mosquito nets. Some say they do not have money to buy them, others say they do not know the advantage of the mosquito net” (a health facility worker).

“The most significant problem affecting the nutrition status of women of child bearing age is anaemia and STIs” (SC Supervisor). This could be attributed to poor diet, high malaria burden and lack of access to health care services to treat STIs.

Access to health care services - Public health facilities within Mogadishu city are generally accessible to the urban population. The urban poor are able to receive immunisation services, drugs when available and prescriptions when drugs are out of stock. However, many revealed that distance, financial cost, time and cultural barriers remain constraints to accessing health care.

“Mothers who visit health facilities generally receive nutrition supplies, access to immunisations and free delivery services, they get medicine when available and prescriptions to buy from private centres when not available. Many receive these services” (FGD with mothers of malnourished children).

Some mothers of reproductive age indicated *“Yes we can go to the health facilities without any problems.”* Others however cited distance as a barrier, *“It is very far. More than 5 km and there is a lack of medicine, long queues, bribery and poor staff... they only give small drugs like paracetamol and iron... Sometimes they give the wrong diagnosis and prescription leading to miscarriages or pregnancy complications”* (mothers of malnourished children).

“People do not visit the health facilities because of lack of time as many go out in the morning as casual labours and come back late.” Or because of *“Financial constraints, we cannot afford to buy the prescribed medicines all the time”* and *“there is unfairness in service delivery”* (FGD with mothers of malnourished children).

Some socio-cultural beliefs hinder the uptake of health services at times; *“There are cultural beliefs that drugs [medicine] and vaccination is a bad thing for the mother and the child”* (a father). Some believe that vaccinations should not be given to new-borns. *“Vaccination should not be given until 40 days after the birth of the child”* (mothers of under-fives).

Health seeking behaviour – Lack of awareness was observed to affect health seeking behaviour. *“Lack of knowledge or awareness about the importance of health facilities is a major reason why children are not taken to health facilities in time”* (FGD with older women over 50). Another factor is that advice is often first sought from the community rather than trained health professionals. *“If a child is sick a mother may seek health advice...”*

or some of the community members seek advice from grandmothers or use traditional treatment” (father of under-fives). This point was reinforced by a teacher *“some mothers opt for other alternatives. Instead of going to the health centre she takes a sick child for traditional treatment”* (a teacher).

Regarding the duration of sickness before seeking advice from health services it was indicated that *“after a child has been sick for two days, or even after 40 days of sickness, treatment may be sought”* (a father).

Poor hygiene and sanitation - Based on the NCA findings, poor sanitation is evident in Mogadishu’s urban poor community. Although pit latrines are generally used to dispose of children’s faeces, there is also open defecation that further pollutes an environment already littered with household waste.

Regarding handwashing practice varies. According to the father interviewed, *“handwashing is done after use of latrines, when hands are dirty, at the time of feeding, after handling child’s faeces, after household chores and after cleaning activities”*. In a proportional piling exercise, however, fathers of under-fives estimate that only about 12-20% wash their hands with soap and ash, as the majority use only water. A 2014 NCA study in North Gedo (SAGE, 2013) established a significant statistical relationship between acute malnutrition and failure to wash hands with soap or ash.

Access to water and the cost of water are factors which affect handwashing. *“They get water from the taps and pay money at the end of every month. 20 litres of water costs 5000 Somali shillings”* (an NGO worker). This is a significant cost to poor families. Little access to water inevitably affects other personal hygiene practices including bathing. As a mitigating factor, however, *“neighbours usually support each other by sharing the available water”* (a community leader).

2.5.5. Poor socio-care among women and children

Socio-care issues that particularly affect women and the girl child include FGM, early marriage, underage pregnancies with traumatic deliveries, high divorce rates, poor psycho-social well-being, poor child spacing and heavy workloads. These issues are explored below.

FGM was mentioned in all FGDs and key informant interviews as negatively affecting the wellbeing, health and nutrition of mothers. This relates to the psychological and physical impact of FGM and to frequent bleeding, loss of blood and anaemia, as well as heightened fears of more painful childbirth and ruptures during childbirth.

The majority of fathers also believe that FGM has a major negative impact on mothers’ physical and emotional wellbeing. In response questions concerning the cultural beliefs and practices of the community

that affect the nutrition of girls aged 13-17 years, older mothers (above 50) also stated that *“a mother bleeds most of the time, she is weak and cannot take care of a baby”*.

Early marriage of girls and premature pregnancies

– The research found that in general Mogadishu’s urban poor marry between the ages of 14 and 17. *“It is a belief and practice that a girl should marry early”*. Another reason for early marriage is that *“the family is poor and needs money or income”* (mothers of under-fives).

A common problem encountered by girls as a result of early marriage is traumatic deliveries. *“Her pelvic joints are very small making the passage of the child difficult leading to operations... some die during birth”* (father’s FGD). It was also stated that *“there can be serious birth complications leading to death at the time of birth”* (FGD with older women over 50). *“Early marriage leads to pregnancy which affects the physical and nutritional wellbeing of the girl. It also leads to early divorce because of the emotional wellbeing of the girl”* (a teacher).

Analysis of the NCA data on early marriage and underage pregnancies shows that related dangers, including traumatic deliveries and divorce, are well known to the community.

Heavy workloads - NCA study findings indicate that women are heavily burdened with work. This work includes fetching water from taps located far from the households, casual work which includes washing clothes and houses for the middle and better off, looking for food, firewood and cooking for the household. Heavy workload among pregnant women can lead to miscarriage.

“Women are busy and not eating enough food or caring for the children. This can affect the nutrition status of the girls and their children” (TBA). *“Some of the community members believe that the education of the girls is not necessary; that a girl is good for household chores only”* (a mother of reproductive age).

Time spent working generally means time spent away from the baby. This hinders practices such as feeding on demand and increases the likelihood of the baby being given alternative foods or bottle feeds. Heavy workloads for women and the lack of baby-friendly work environments impacts negatively on IYCF as many of these mothers are away from their babies and young children so much.

Poor psycho-social wellbeing – The Mogadishu urban NCA study findings depict good psycho-social wellbeing among women with well-nourished children, and poor psycho-social wellbeing among mothers of malnourished children. Below are responses regarding the psycho-social wellbeing of mothers with or without well-nourished children.

“The mother feels happy when her children get their needs... She feels sad when she has not met the basic household needs” (a father).

“Most of the time mothers with malnourished children feel sad, are worried and afraid” (a mother of reproductive age).

“A mother with malnourished children is sad, has no energy and she is weak” (community health worker).

“Most of the time they are worried and sad due to their child’s malnutrition. They are not happy, nor clean. They are ignorant” (TBA).

The psycho-social wellbeing of the mother is quite evident and, in the case above, linked also to personal hygiene practices.

“Because her baby is sick, she cries often and worries of what will happen to her babies. She can’t sleep all the night” (a community leader).

In response to reasons why mothers with malnourished children are generally in this kind of state it was observed *“the majority are either from poor families, or are bread winners for their family (mostly female headed households) and cannot provide for their children’s daily needs in terms of food, health and nutrition. They also have nowhere else to go”* (an NGO worker).

Mothers of reproductive age recommended *“to have faith and patience at the difficult times as they believe everything happens with the will of Allah”*. According to a women’s support group, some women from Mogadishu’s urban poor belong to groups where they share information and support each other.

Analysis of these findings indicates a vicious cycle linking the psycho-social wellbeing of mothers and their ability to care for their children, with those with sick or acutely malnourished children unable to effectively take care of themselves and their children. Hence psycho-social wellbeing is an important factor in acute malnutrition.

Poor child spacing – Among Mogadishu’s urban poor community child spacing is inadequate with many mothers having a baby annually. According to mothers with malnourished children and proportional piling exercises, about 65% of women have a child within one to one and a half years of delivery. Participants in the fathers’ FGD stated that about 90% of women have a child every year.

“The desire for many children is one of the key drivers of poor child spacing...having many children helps a household feel more secure” (older woman above 50).

Lack of awareness of available options was also mentioned as a cause for poor child spacing. As a young 14 year old mother said, *“we are not aware what to do”*.

Lack of formal education is one reason underlying poor child spacing. *“Girls and boys who have education manage to space their children. The majority of our children here do not have an education, so they get babies very often”* (a father).

“There is no family planning among Mogadishu’s urban poor” (health worker). This health worker attributes non-use of family planning to widespread lack of awareness and in-access to MCH services.

2.5.6. Illiteracy

High illiteracy among women and men is evident in Mogadishu’s urban poor community. Based on a proportional piling exercise with mothers of malnourished children, only 10-16% of respondents had completed primary school with 0% completing secondary education.

“Formal schools are private hence cannot be accessed by the majority of the urban population” (a teacher).

“There are financial problems. Some of the teachers don’t have skills” (a father).

Consequences of illiteracy among caregivers include poor health seeking behaviour. *“When a child is sick some buy medicine from the pharmacy. If the mother has knowledge she takes her child to a health centre. If she is illiterate, she keeps her child at home”* (fathers of under-fives). A mother proposed *“free education for girls and boys to remove ignorance”*.

2.5.7. Insecurity

The NCA findings show how security underpins nutrition status. Insecurity leads to loss of lives and livelihoods and often results in destitution and displacement. Insecurity also hinders free movement to health facilities and hinders investments, thereby limiting access to income. In an urban setting without income it is often impossible to access basic services such as water and food which are purchased.

“Security has had a bad impact on business, access to health facilities and education. It has also led to low income. Because of the impact of insecurity family income has decreased and that causes the family not to be able to buy basic household needs” (a TBA).

“Most challenges of nutrition in our community are related to security because the country’s security is not stable. Political conflicts can cause malnutrition because every year over 1000 people are displaced” (a community leader).

“Young girls are often raped. The young girls also get into early marriage to avoid being punished for getting pregnant” (SNS Staff). This sets in motion a cycle of psychological distress and of vulnerability to malnutrition.

2.6 Mogadishu urban livelihood zone as a relatively positive community nutrition wise

Mogadishu urban livelihood zone maintains malnutrition levels within Alert levels and can therefore be considered a “positive deviant” society within SCZ, where nutrition status is typically Serious to Critical. Factors underpinning this relatively strong nutrition status include positive practices among economically poor households, as discussed below.

- Networking is a way of life in Mogadishu’s urban livelihood zone (especially among middle and better off groups), where useful and necessary information is generally shared widely amongst clan members.
- Although social support is reportedly starting to decline due to high living costs, it remains relatively strong among most Mogadishu residents and cushions the vulnerable who are unable to provide for themselves. At the same time, a high number of dependent in-migrants remain cause for concern.
- Income among the middle and better off is mainly earned, generated or provided through local support or diaspora remittances. Those earning typically give up-to 40% of their income to support other family members.
- Household income amongst Mogadishu’s urban communities is mainly spent on food and rent as indicated in the livelihoods characteristics. The majority also spend on medical care and private education.
- The following factors were found to underpin nutritional wellbeing amongst positive deviants in Mogadishu’s urban livelihood zone:
- Exposure and relatively high levels of awareness, including of appropriate health and nutrition practices.
- Entrepreneurial skills. Many have small businesses or are employed.
- Many households have members overseas who are able to send remittances.
- Family planning is practiced, with relatively high child spacing of approximately two years.
- Education levels beyond primary level, with some up to tertiary level.

Among Mogadishu’s urban poor, assessment findings show that there are households with and those without malnourished children. The distinguishing factors are largely practices related to IYCF, child care, income access, the age of the mother, social support and household cultural practices. See Table 6 below which outlines the profile of households with or without malnourished children.

In general, positive deviant urban poor households display the following characteristics:

- Breastfeeding practice is stronger, especially the persistence of breastfeeding even when the mother

- becomes pregnant again.
- Consume a healthy meal at the beginning of the day.
- Mothers or responsible caregivers provide care for their children for most of the day.
- A typical maternal age of 18 or above.
- A higher degree of appropriate health seeking behaviour.

Table 6: Profile of poor urban households with malnourished/well-nourished children

Main factors	Profile of positive deviant households	Profile of poor household with malnourished child
IYCF practices		
Persistence of breastfeeding	Infant/child is breastfed even while the mother is pregnant	Breastfeeding stops as soon as mother conceives. Some opt to bottle feed once the mother conceives.
Care - Having a responsible adult take care of child in mother's absence	An infant/child is left in the care of a responsible caregiver when mother is absent	Child is left alone with other children until mother returns
Maternal age	Mother is 18 years or above	Mostly below 16
Psychological state of mother	Mother is generally happy, active or has a positive attitude towards life and her future	Mother is generally worried or in search of a nutrition facility
Personal hygiene of mother	Takes care of herself	Does not take care of herself
Social support	Mother belongs to a social group where they discuss problems and how to address them	Mother does not belong to a social group
Health seeking behaviour	Visit health facilities for support despite often being discriminated against	Takes child to cultural treatment centres for traditional 'healing' involving burning of the child's skin or body parts as a curing process, rather than visiting health facilities



3. Discussion and Conclusions

Persistent insecurity, recurrent droughts, including the 2011 famine, and floods have resulted in a continued influx of IDPs into Mogadishu city between 2011 and 2015. While many of the displaced have been absorbed directly into Mogadishu's urban households, others, mainly from the Somali minorities, reside in settlements dispersed within Mogadishu city.

Extensive humanitarian assistance provided in Mogadishu IDP settlements in 2011 mitigated a desperate famine situation and helped bring down extreme famine levels of GAM (45.6%) to Critical levels (20.6%) within a six-month period then to Alert levels (8.6%) in the following six months. This assistance also reached IDPs who had been absorbed by the urban community. Since 2013, there has been reduced access to humanitarian assistance and the burden of meeting the basic needs of vulnerable dependents rests mainly with host urban dwellers or IDPs themselves. Other factors include the loss of investments following the burning of Bakara market in 2013, loss of income through the departure of NGOs since 2013 and seasonal factors including disease trends. The hungry season and milk availability have also impacted on nutrition in Mogadishu and limited the access of the urban poor to casual labour opportunities.

Despite this situation, Mogadishu urban livelihood zone maintains malnutrition levels within Alert levels, with GAM rates of 5-10% (WHZ). It therefore constitutes a relatively positive picture of community nutritional status in SC Somalia. Factors underpinning this "positive deviance" in nutrition include social support networks, higher levels of nutrition/ health awareness and of formal education in general, as well as more evident entrepreneurial skills and relatively positive child spacing practice.

In contrast, the Mogadishu population affected by malnutrition is the poor wealth group, mainly comprising

of Somali minorities, who are not effectively integrated into the Mogadishu urban livelihood zone but live in poor rented conditions dispersed across the city. Malnourished households have a weak livelihood asset base. They generally lack access to social support and/or income, which limits their access to basic services and a balanced diet.

In summary, the key characteristics of this group that contribute to malnutrition are:

- Poor asset base and limited income opportunities (dependence on casual work) resulting in the urban poor being unable to access adequate health care and education services. About 60% are reportedly poor based on the NCA wealth ranking exercise.
- The minority clans are less likely to have family members overseas to send remittances.
- Lack of strong networks and therefore lack of a safety net.
- Low literacy levels and low awareness of appropriate nutrition and health practices.
- Commonly men from urban poor households take khat or drugs and contribute little to household needs.
- Poor IYCF practices including the early cessation of breastfeeding and the consumption of only one meal a day (children two at most).
- High disease incidence mainly measles, AWD and malaria, ARIs and STIs among women and men.
- A poor socio-care environment for women and children, with women perceived as primary providers of households, FGM, early marriage, underage pregnancies and traumatic child births are common.
- Poor child spacing, with the majority after about one year or up to two years maximum.
- Insecurity, including violence against women and girls.



4. Recommendations

1. Strengthen programmes that increase income generation opportunities among the vulnerable urban poor. These might include (i) Cash Transfer programmes which could be undertaken between July and September during sea port closure as a result of monsoon winds, which decreases casual job opportunities; (ii) Provide business skills training; (iii) Explore ways to address social or discriminatory barriers that limit the poor from participating in retail and trade activity.
2. As 90-100% of Mogadishu resident household food is purchased, stronger income generation opportunities should enhance household access to food. Related programmes need to target women in particular.
3. Support the formation of social support groups where members can exchange information and address common concerns. Provide skills training where feasible.
4. Consider policy decisions (at employer, donor and government levels) to actively foster the employment of members of the urban poor, in particular of minority clan members, who voiced significant concerns about widespread discrimination and lack of access to services. For example, while women from some communities jump the queue at health facilities and spend a relatively long time with health staff, those interviewed shared experiences of having to spend far longer in health facility queues and being granted very little time with health personnel.
5. Strengthen and expand resilience programmes to address long term poverty.
6. Provide Sharia-compliant credit facilities or grants to the urban poor, e.g. for self-help groups.
7. Address weak IYCF practices that hinder nutrition:
 - Develop long term social and behavioural change programmes to raise awareness and promote optimal IYCF. For example, to discourage giving new-born babies sugary water soon after birth.
 - Foster enabling environments to facilitate appropriate IYCF at community level. For example, day care centres for infants and young children while their mothers are working.
 - Establish mentorship programmes to enable young mothers and soon-to-be mothers to learn from positive role models within the community.
8. Address negative socio-cultural beliefs and practices which affect infant and child health and nutrition, through long term social and behavioural change programmes. For example, the belief that children should not be immunized within forty days of birth and the use of burning and cuts to accelerate healing in children.
9. Improve the socio-care environment for vulnerable urban women and children.
 - *Strengthen awareness about the dangers of FGM:* NCA findings show that men and women, older women and community leaders all consider FGM to endanger girls and believe that it impacts on health and nutritional well-being. This provides important openings, for example, to work with relevant actors to support social change efforts towards more positive rites of passage.
 - *Tackle early age marriage for girls, premature childbearing and traumatic deliveries:* Develop and enforce laws against early marriage for girls.
 - As about 80% of mothers deliver with the assistance of Traditional Birth Attendants (TBAs), barriers that hinder women from using official health services need to be explored. For example, MOH supported midwives need a stronger presence among Mogadishu urban poor communities to ensure appropriate antenatal care and safe childbirth. As well, the MOH could be supported to provide ambulances with skilled health personnel, to service affected communities and take those in need to hospital.
 - *Raise awareness on the benefits of child spacing to family health.* Promote culturally acceptable options.
 - *Enhance the security and protection of girls and women.* For example, liaising with key protection actors and involving local leaders in efforts to tackle factors that contribute to violence and rape.
10. Insure access to Maternal and Child Health programmes where antenatal care, postnatal care and immunization services can be accessed and common diseases treated, e.g. through mobile clinics.

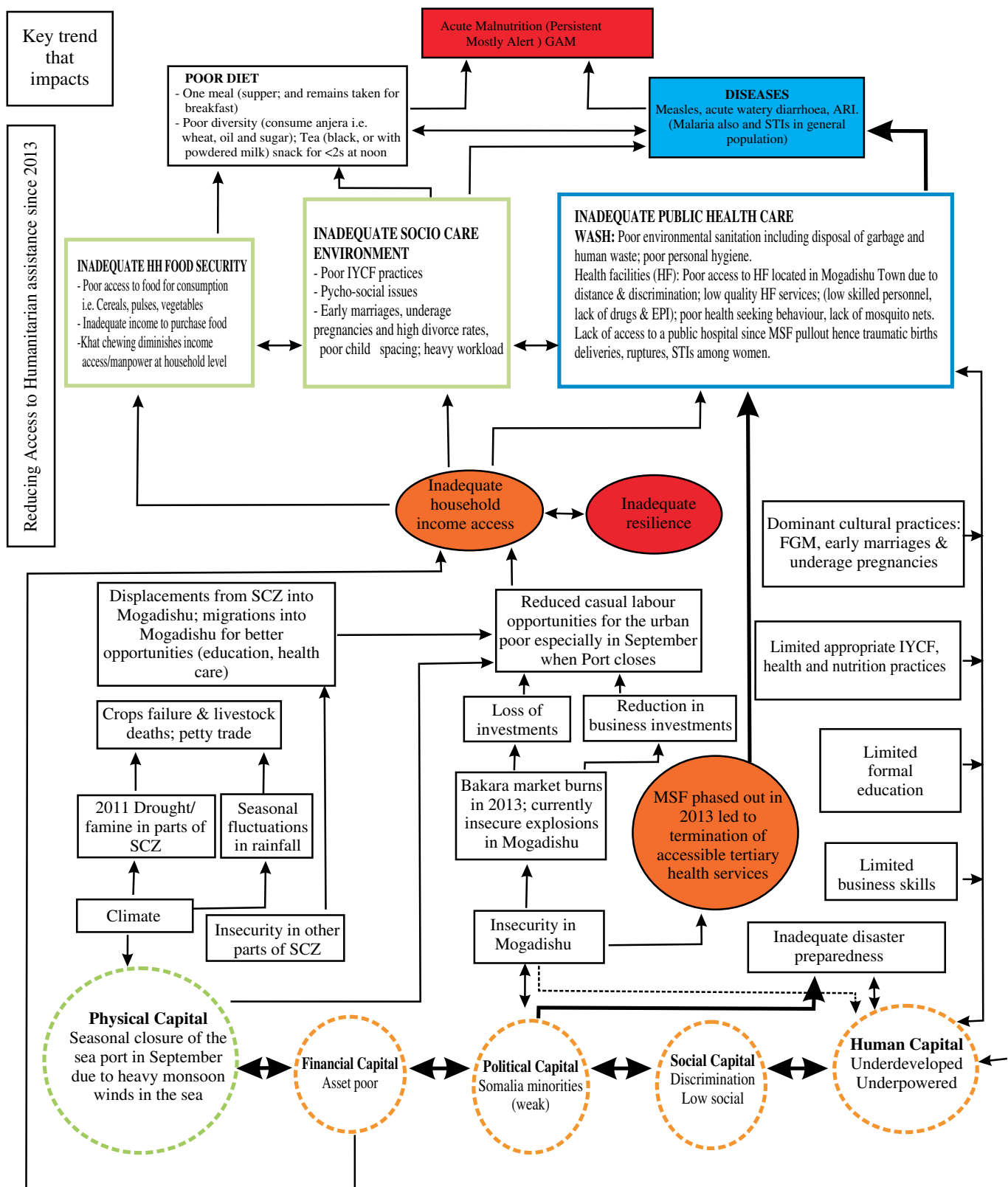
11. Ensure adequate WASH facilities and Nutrition, Hygiene and Health Promotion (NHHP) initiatives. As well as fostering hygiene, increase household access to wells and taps would reduce the time women spend fetching water and liberate time for child care.
12. Explore options to strengthen poor family access to health services, especially for childbirth. For example, negotiate public-private partnerships with hospitals to provide subsidized services to the poor.
13. Improve the targeting of beneficiaries in lifesaving programmes, to ensure that the basic needs of the most vulnerable, including the urban poor, are addressed. Research the impact of men's khat chewing on family nutritional status and child care.

Further research

Further research is recommended to look at:

1. The valuable role TBAs could play in Mogadishu today, given the fact that most poorer, more vulnerable women have little access to official health services and continue to trust and use TBAs for support during childbirth.
2. The persistence of early-age girls' marriage and underage pregnancies, when all groups involved in the NCA study seem aware of the dangers this poses to the health and nutrition of girls, women and children.
3. Understand better the factors that influence positive deviants, or girls who marry and bear children relatively late, i.e. at a safer, more appropriate age.

5. Causal Pathway - Mogadishu Urban livelihood zone (poor wealth group)



NCA Study among Beletweyne Riverine Communities

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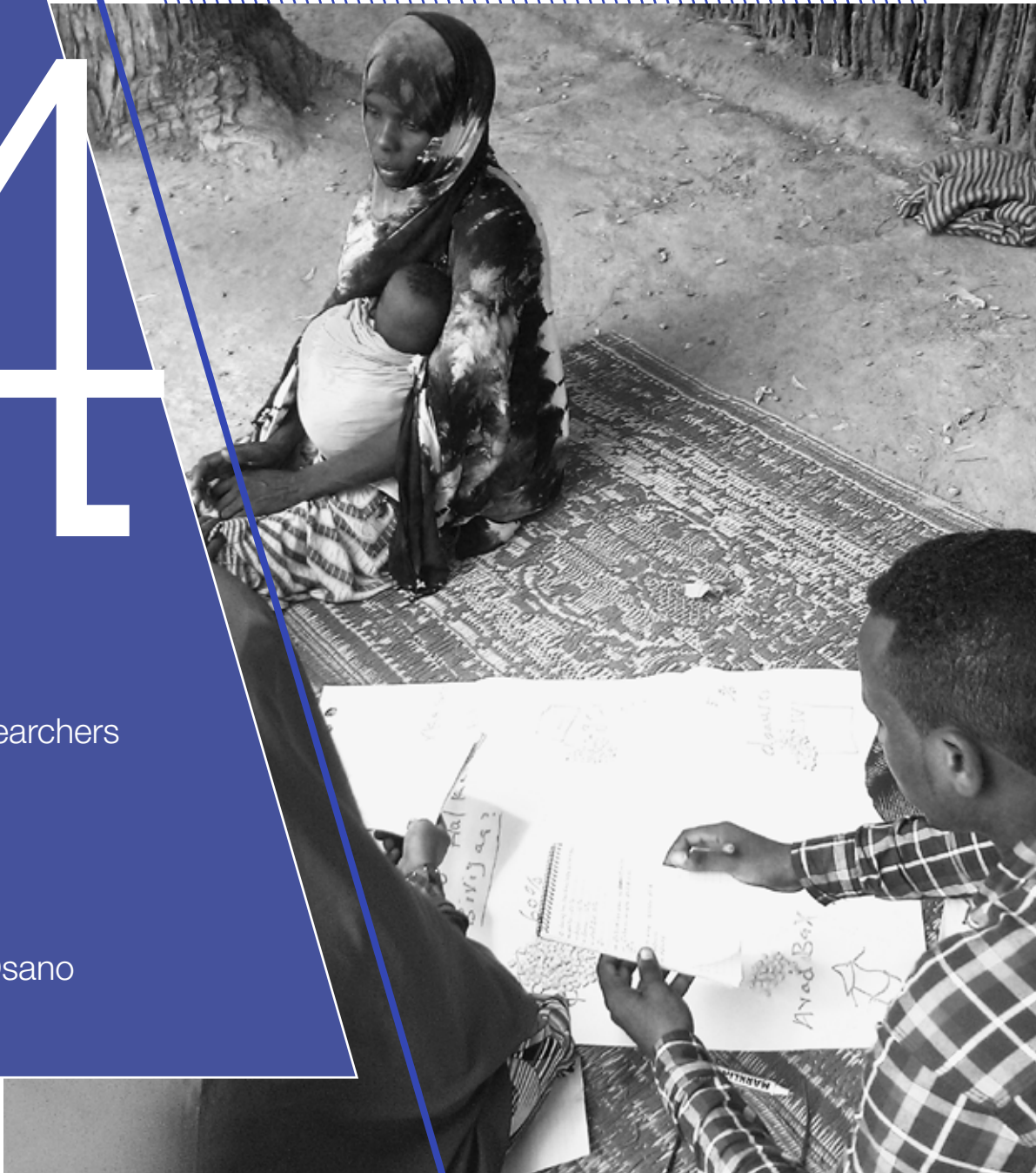
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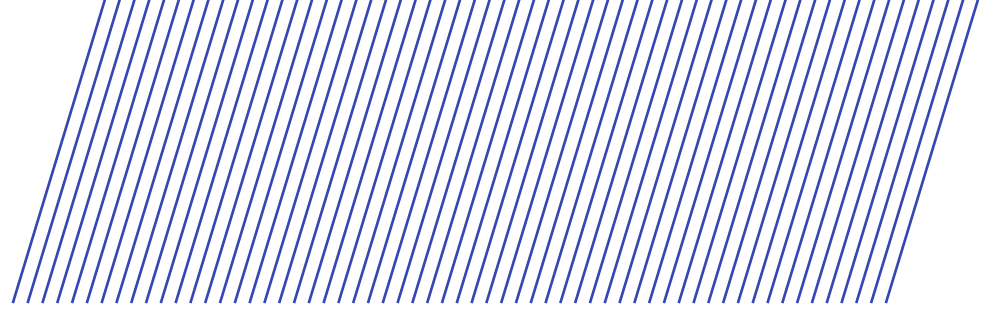
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Executive Summary

The main hazards affecting riverine Beletweyne communities are insecurity, drought and floods. These have resulted in loss of life, land and destitution. Internal displacement of people from their land is commonplace and continues to hinder their ability to invest in livelihoods. These events also have psychological impacts as communities live in constant fear. Due to the prevailing insecurity, there is negligible humanitarian presence in the riverine livelihood zone to mitigate the situation, with agencies operating mainly from Beletweyne town which is slightly safer. The sale of food stocks is the main source of income, contributing about 50-60% of riverine household income, hence drought and floods largely define household food security. The nutrition situation in Beletweyne riverine communities has been at Critical levels of acute malnutrition throughout the past three years (FSNAU 2015).

A Nutrition Causal Analysis (NCA) study was conducted by the SNS Consortium in Beletweyne riverine livelihood zone from March to November 2015. The purpose of the study was to investigate key factors contributing to the poor nutritional situation and the relationship between the factors. Findings of the study and the resulting recommendations are provided below.

Key Findings

1. Poverty is rampant among Beletweyne riverine communities. A wealth ranking exercise by the assessed community classified 70-90% of the population as poor.
2. Diseases largely relate to poor access to safe drinking water and sanitation, lack of primary health care services including immunization to protect against measles or treat common diseases, and malaria - due to lack of mosquito nets.
3. Health services are primarily located far from rural riverine communities, in Beletweyne town. They often lack drugs, fuelling a heavy disease burden. MCH services to provide ante- and post-natal care for young women do not exist in riverine areas. Consequently, childbirth is often traumatic for

those unable to meet costs at the private health centres in Beletweyne Town.

4. Inadequate crop harvests and food stocks for poor community members, who lack the income others generate through local sale of foods produced. This impacts negatively on their ability to meet basic needs including consuming a healthy diet, accessing well-stocked health services and basic mechanization to cultivate their farms. Consequently, land cultivated through household labour is small, limiting potential harvests.
5. Lack of basic knowledge on seed selection and cultivation techniques, which would help to maximize crop production.
6. Insecurity limits local ability to access harvests, engage in casual labour and invest in livelihoods. It has also had a psychological impact seen in perpetual fear of movement and of loss of life and/or property, including being forced to flee their land and homes.

Key Recommendations

1. As crop production constitutes the main livelihood in Beletweyne Riverine communities, contributing to over 50% of food and income despite high insecurity, this livelihood needs securing for sustainable optimal nutrition. The study recommends the provision of small-scale agricultural farming support for approaches which make the most efficient use of available water, to increase field cultivation and harvests for households with access to land. This includes supporting access to appropriate farming techniques (i.e. Conservation Agriculture⁴), seeds and basic tools, as well as to technical crop management support (how to cultivate, plant, manage, harvest and store crops appropriately in local conditions). Advice on growing nutritional food is also recommended.
2. Increase access to public health services:
 - Provide health services in Beletweyne rural areas. Consider mobile services, or subsidies to private health care to enable the poor to access necessary

services.

- Provide MCH services where ante- and post-natal care can be assessed locally. To include immunization services, health education and advice on child spacing.
 - Raise awareness about health and nutrition within these communities. Include TBAs, older women (mothers-in-law) and men as potential change agents, given their influence on decisions about the types of food pregnant women and children eat.
 - dFocus explicitly on personal and environmental hygiene, as well as appropriate household diets.
 - Address personal and environmental hygiene and WASH issues including dominant practices of open defecation and inadequate hand-washing. Link with related initiatives like local Community Led Total Sanitation (CLTS) programmes.
3. Provide OTP services in riverine areas close to areas of need and ensure Stabilization Centre access for severely malnourished children.
 4. Develop long-term social and behavioural change initiatives to raise awareness about and strengthen IYCF practice. To include the promotion of exclusive breastfeeding, persistent breastfeeding and appropriate complementary feeding. Actively discourage bottle-feeding, except in extreme cases.
 5. Strengthen the social welfare of women and children affected by acute malnutrition by supporting local social/ support groups, offering counselling services at health facilities and developing mentorship programmes where positive deviants can support families with malnourished children.
 6. Explore opportunities to support income generation and to secure adequate access to food. Business skills and social welfare programmes should target more vulnerable groups in particular, including minorities.
 7. Consider efforts to strengthen access to livestock (mainly chicken, goats and cattle), to ensure adequate household access to eggs, milk and meat and to strengthen access to income through related sales. Explore opportunities to provide the necessary veterinary support services.
 8. Food security strategies need to take into account the impact of seasonality, increased reliance on irrigation rather than rainfall and the burdens faced by women and girls.
 9. Enhance security and ensure the protection of women and children in particular from armed militia.
 10. Proactively address barriers that serve to marginalize Somali minorities and which prevent them from accessing basic services and land.



1. Context

1.1 Background

Administratively Beletweyne/Mataban, with Jalalaqsi and Buloburti, comprise the three districts of Hiran Region. Beletweyne borders Ethiopia to the north. Beletweyne town is the capital of Hiran Region.

Beletweyne District has three main livelihood systems: agro-pastoralist, pastoralist and riverine (see map below). The riverine community reside within 5 kilometres of the banks of the Shabelle River and practice crop production. They rely on the river and rain for crop farming. The riverine community mainly produces maize and vegetables as cash crops, and sorghum for household consumption. Riverine communities also keep livestock (such as chickens) for cash and household consumption.

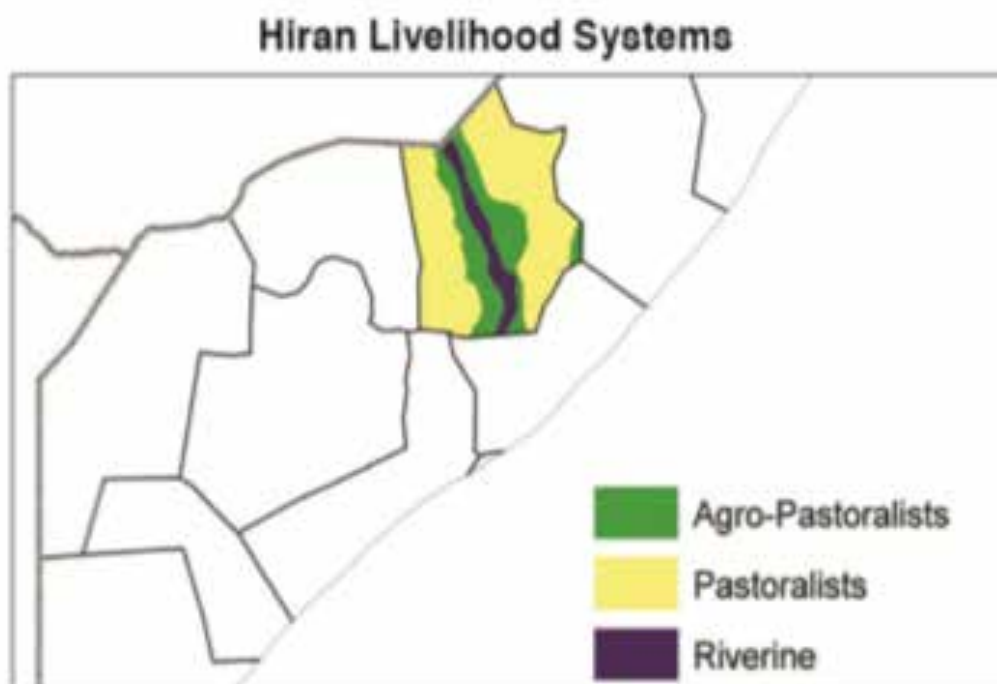
1.2 Introduction

The population size of Hiran Region is 329,811, of these 32, 633 make up the riverine community (UNDP 2005).

The nutrition situation in Beletweyne riverine livelihood zone has remained in Critical phase since the 2012 famine (FSNAU 2015). To better understand this situation, the SNS Consortium undertook an NCA study in this livelihood zone between March and November 2015. The objectives of the study were:

- To identify the main factors underpinning acute malnutrition in order to inform strategy and prevention programmes (health, WASH and nutrition) at local levels.
- To understand the local seasonal and historical pathways to acute malnutrition.
- To strengthen the evidence base and support advocacy to tackle the causes of acute malnutrition in South Central Somalia.

Planning for the NCA study was undertaken in March and April 2015 and entailed a review of literature, and meetings with stakeholders in Nairobi and Mogadishu with key stakeholder. In Beletweyne, field work was



conducted from May 5 - June 8 2015 in four villages: Bacad, (later replaced by Hiran Village for security reasons), Lebow, Shabellow and Gabarlaawe. Field work included debrief meetings with key stakeholders in other NCA research areas such as Mogadishu and Beletweyne. Data consolidation, analysis and report writing were undertaken between June and November 2015.

This report shares the findings and analysis of the NCA study in Beletweyne riverine community. Key findings include:

- The typical characteristics of the study population.
- The historical timeline of events impacting on nutrition
- Seasonal factors.
- Other factors impacting on the nutrition situation.

The report includes discussion and conclusions, including on the causal pathways to acute malnutrition and recommendations to address the currently worrying nutrition situation.

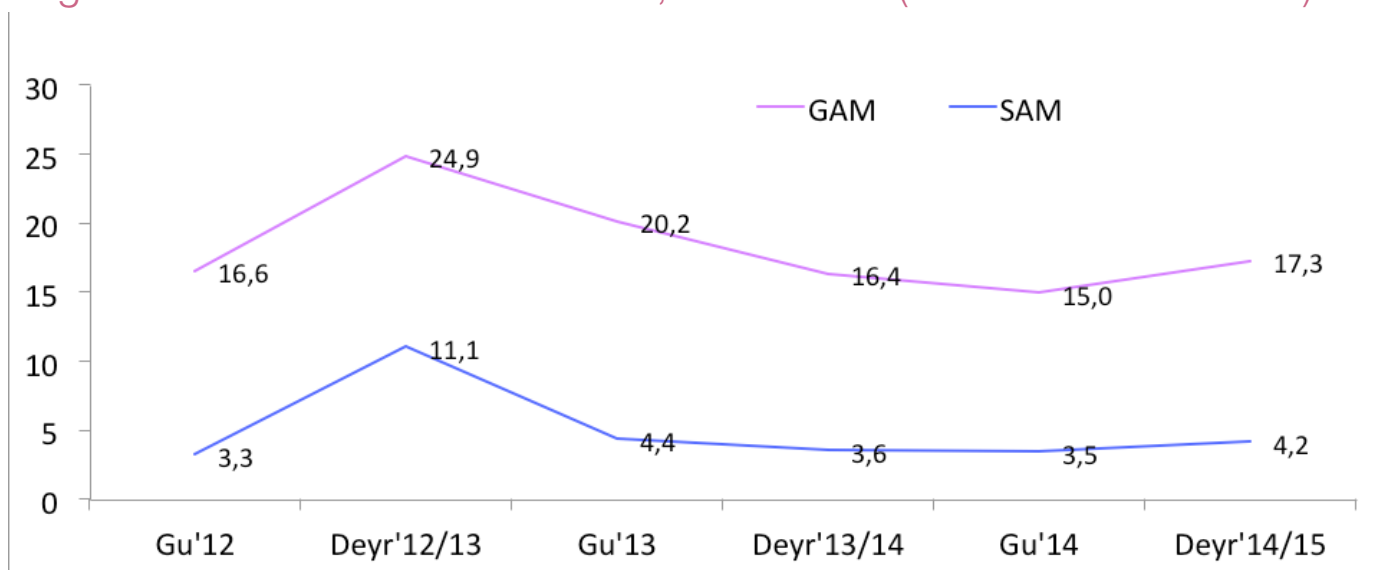
1.3 Nutrition Situation

The populations of Beletweyne riverine livelihood zone have experienced persistent Critical levels of acute malnutrition in the past five years, based on analysis of nutrition data trends by UNFAO/FSNAU.

For the last two seasons, sustained prevalence of Critical levels of acute malnutrition has been recorded in Beletweyne and Mataban districts. The Global Acute Malnutrition (GAM) rates for the current season were 17.3% and 17.8% in Beletweyne and Mataban districts, respectively. The Severe Acute Malnutrition (SAM) rate shows deterioration in Beletweyne from Serious (3.6%) last Gu 2014 to Critical (4.2%) in Deyr 2014/15. SAM improved in Mataban from Critical (5.1%) in the last Gu 2014 to Serious.

This situation is attributed to the ongoing civil unrest and floods both of which have caused displacement. Floods have also caused the deterioration of sanitary conditions and the spread of disease (FSNAU Deyr 2014/15). FSNAU estimated that 11,500 children in Hiran Region were acutely malnourished in Post Deyr 2014.

Figure 1: Trends of GAM and SAM, 2012-2014 (UNFAO/FSNAU 2015)



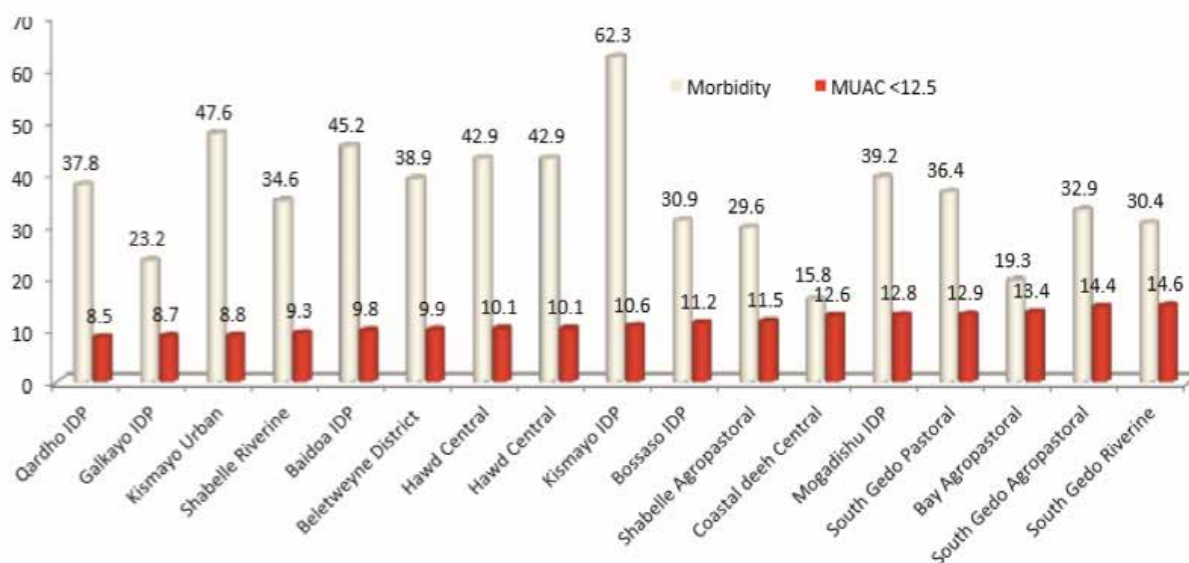
1.4 Health Situation

In January 2015 FSNAU reported morbidity levels for Beletweyne at 38.9%. Deyr 2014/15 results suggest a significant ($p < 0.05$) positive association between prevalence of morbidity and GAM-MUAC ($r = 0.44$). The figure below shows the morbidity recorded in livelihoods where Serious to critical levels of acute malnutrition were recorded using MUAC as an indicator.

Vitamin A supplementation is recommended in infants and children between 6 and 59 months as a public health intervention to reduce child morbidity and mortality. Sphere standards recommend that vitamin A supplementation coverage of the population should

be at least 70% and ideally $> 95\%$ coverage.¹ 44.4% of the population had received vitamin A supplements based on Deyr 2014 findings. This is low and may have contributed to the high level of morbidity reported. A related, and likely compounding factor, is the pull out of MSF from the areas three years ago. MSF previously ran a hospital providing primary and secondary health services and no other agency has been able to take up these activities which has inevitably left a major gap.

Figure 2: Morbidity in livelihoods with Serious – Critical GAM-MUAC, Deyr 2014 (FSNAU March 2015).



1.5 Food Security

Poor rains, the high cost of fuel for irrigation and insecurity are indicating below average production in the Deyr in agro-pastoral and riverine parts of the Beletweyne district (FSNAU, Jan 2015). Based on Gu 2015 findings, FSNAU projects a short-term deterioration of the food security situation in parts of southern and central agricultural zones between July and December. The deterioration is largely due to early

cessation of the rains, floods that destroyed crops and pest infestation. Furthermore, areas affected by road blockades imposed by armed groups are likely to continue to be in a food security crisis situation. Riverine communities have two months of cereal stocks (January-February 2015) and usually have increased access to farm labour during the Gu season, from March 2015.

1.6 Humanitarian Support

The humanitarian organisations supporting communities in Beletweyne District are shown in the table below, along with the types of activities they support.

Humanitarian assistance	Organizations
OTP	SCI, WARDI, SAMRADO, MGV
MCHN	HIDIG, SWISS -KALMO
Targeted Supplementary Feeding (TSFP)	SCI,
IYCF	OXFAM/WARDI, BPPSC, SCI
Health care	HIRDO, WARDI, ZAMZAM
WASH	DRC, WARDI, SCI
Food For Assets (FFA)	HARDO, HIHADO, HAPOCHILD, DOYALE and DRC
Education and Vocational Training	ADRA, FENPS

1 The Sphere Project. 'Minimum Standards in Food Security, Nutrition and Food Aid'. In: Humanitarian Charter and Minimum Standards in Disaster Response, 2004

2. Findings and Analysis

2.1 Typical Livelihood Characteristics of Community

Table 1: Typical livelihood characteristics

Main source of food	%	Analysis
Crop production	55-60	<p>Crop production is the main source of food in the assessed riverine villages contributing 55-60% of the food. Purchase is also important, contributing 30-34%. Findings are consistent with those of UNFAO/FSNAU which indicate 65% consumption from own production and 35% from market purchase (FSNAU Jan 2015, p. 34).</p> <p>The same FSNAU report indicates below average production in the Deyr 2015 in riverine areas. This is attributed to poor rains, the high cost of fuel for irrigation and the prevailing insecurity. The latter was particularly experienced in agro-pastoral and riverine areas of Beletweyne district which prevented farming activities in some villages (Ibid.).</p>
Purchase	30-34	
Given by neighbours/employers	4-6	
Zakat	1-5	
Livestock keeping	1-2	
Main source of income		
Crop sales	60-65	<p>NCA study findings show crop sales and casual labour are the main source of income. This is also consistent with the FSNAU Jan 2015 report which indicated crop and fodder sales as the most important sources of income for the riverine population followed by agricultural and self-employment (Ibid.).</p>
Casual labour	25-26	
Livestock sales (goats & cattle, HH have 2-4)	3-5	
Petty trade/ small business	2-4	
Income expenditure		
Food	50-60	<p>The study found that most household income is spent on food, crop production and medicine.</p>
Crop production (Farm implements & cultivation)	20-27	
Medicine	4-5	
Transport	3-4	
Quranic schools	2-3	
Cloth	1	

Wealth Ranking

The NCA wealth ranking exercise in Beletweyne riverine livelihood zone classified 70-90% of the population as poor, 10-30% as middle and 0-4% as better off.

Table 2: Wealth ranking

Wealth Group	Poor	Middle	Better-off
Proportion (%)	70-90	10-30	0-4

Table 3: Factors used in wealth ranking

Factors	Profile of households in middle or better off wealth groups	Profile of poor households
Food stocks	Good stocks of food	No food stocks
Income access	Good income	Lack of money, even to take children for treatment when they are sick
Field crop status	Field crop is secure. Tractors and casual labour used to cultivate land.	Field crop is not in good shape. Household labour used to cultivate farms of the better off Hence little time on their farms. Some of the poor households have been displaced from their farms due to conflict and are unable to access harvests
Dietary diversity	Diversified family diet	Typical carbohydrate diet (<i>anjera</i> with <i>ambulo</i> ²) boiled maize
Immunisation	Immunise their children	Poor levels of immunisation
Hygiene and sanitation	Good hygiene and sanitation	Poor sanitation and hygiene

2.2 Historical Timeline of Events

The historical events reported are not positive and have impacted negatively on people's lives in terms of disease burden, acute malnutrition and mortality, mental health and livelihoods. Losses have also been incurred on investments (ranging from loss of property such as houses, as well as of field crops and canals). The reported historical events directly or indirectly underpin acute malnutrition.

² *Anjera* is flat wheat flour, oil and sugar "pancakes". *Ambulo* is maize porridge with or without beans

Year	Month	Event	Impact
2011	November	- Floods - Droughts - Clan fights	<ul style="list-style-type: none"> • Collapsed houses - people living in the village flee and all their livestock die • Malnutrition, hunger & poverty • Lack of income • Limited humanitarian presence due to insecurity
2012	December July	- Floods - Fighting in the village - Disease outbreak	<ul style="list-style-type: none"> • Displacement & casualties • Diarrhoea and malaria • Limited humanitarian presence due to insecurity
2013	July	- Civil war - Floods	<ul style="list-style-type: none"> • Deaths • Poor income • Malnutrition & sickness among children & elderly • Poor production due to destroyed canals • Emotional impact of fear & insecurity • Limited humanitarian presence due to insecurity
2014		- Civil War in Defow - General insecurity - Drought	<ul style="list-style-type: none"> • High levels of displacement • Fear of insecurity • Loss of livestock & harvest • Hunger & poverty • Death • Limited humanitarian presence due to insecurity
2015		- On- going clan fights - Insecurity and road blocks	<ul style="list-style-type: none"> • Fear and insecurity • Loss of livestock and harvest • High levels of displacement • No free movement • Limited humanitarian presence due to insecurity

2.3 Seasonal Calendar

The seasonal calendar of events shows consistency between the prevalence of acute malnutrition (peak admissions at nutritional centres), the hungry season, peaks in diseases (diarrhoea and acute respiratory tract infections (ARIs), high food market prices, low availability of farm labour opportunities and temporary jobs.

Other factors such as availability of milk and harvests (of staple foods and vegetables) do not appear to have a direct impact on acute malnutrition in the assessed villages.

The *Hagar* season is windy and has a high prevalence of disease and hunger; children fall sick and there is no food. Seasonality-related gaps that need to be addressed are

- A food security strategy
- Health care
- Safe drinking water access.

Table 4: SC Seasonal Calendar

	Months of the year (January to December)											
H = High; M=Medium; L = low; U =J unknown	F	M	A	M	J	J	A	S	O	N	D	
Acute malnutrition												
Prevalence of acute malnutrition	H	H	H	M	L	L	M	H	H	M	L	L
Peak of admissions in nutrition centres	M	H	H	M	L	L	M	H	H	M	L	L
Water resources												
Rainy season	L	L	L	M	H	H	M	L	L	M	H	H
Underground water availability	U	U	U	U	U	U	U	U	U	U	U	U
Ground water availability	H	M	L	L	M	M	M	L	L	M	H	H
Other sources (borehole, berkads)	U	U	U	U	U	U	U	U	U	U	U	U
Harvests												
Hunger season	H	H	M	M	M	M	M	M	M	H	H	H
Harvest (Staple food)	M	H	M	M	M	M	M	M	L	L	H	H
Harvest wild fruits	M	L	L	L	L	M	M	M	L	L	H	H
Harvest vegetables	H	H	M	M	M	M	M	M	M	H	H	H
Milk availability												
Milk availability	M	H	H	H	M	L	M	H	H	H	M	L
Household economy												
Food market prices	M	H	H	H	M	L	M	H	H	H	M	L
Farm employment opportunities	M	L	M	M	M	H	H	M	L	L	M	H
Temporary jobs opportunities	L	L	L	L	M	H	M	L	L	L	M	H
Movements and family organization												
Moving to farming villages	L	L	L	L	L	L	L	L	L	L	M	M
Livestock transhumance(seasonal movement of people with their livestock)	H	H	H	M	L	L	M	M	L	L	M	H
Farming labour	M	L	H	M	H	H	M	L	L	M	H	H
Health												
Diarrhoea	H	H	H	L	L	L	M	M	M	L	L	L
Malaria	L	L	L	M	H	H	L	L	L	M	H	H
ARIs	M	M	L	L	L	M	L	L	M	L	H	H
Social												

2.4 Local Definitions and Understanding of Malnutrition

The local word for malnutrition is 'nafaqo'. Focus Group Discussions (FGDs) found that 'Nafaqo' is well understood among the assessed communities. FGDs with mothers of reproductive age in Gabarlaawe indicated malnutrition occurs "when there is no food to eat." It was also stated that "Malnutrition is anaemia, and oedema" (FGD with mothers of malnourished children) and "Malnutrition is body wasting" (FGD with boys and girls).

2.5 Key Factors Contributing to Acute Malnutrition

Findings of the NCA study in Beletweyne riverine communities indicate the following factors as contributing to acute malnutrition.

2.5.1 Poor crop harvests, lack of food and income

The riverine community cultivate maize and vegetables (spinach and tomatoes) for cash and sorghum and beans for consumption. Recurrent drought or rain failure results in loss of crop and livestock and floods cause the destruction of field crops and stocks. Gu rains are sporadic and not continuous and may only come for one out of the three months of the season (April - June). This results in poor harvests for both cash and food crops (NCA debriefing notes).

"The majority of this community depend on farming, especially seasonal farming, and don't receive enough rain most of the season. There is not enough rain in Gu (April-June) and Deyr (October-December), then Jilaal (January-March) and Hagay (July-September) comes when we do not receive any rain" (Traditional Birth Attendant (TBA), Shabelo village).

"Lack of rain makes the communities have no food to eat at all" (a community leader, Hiran village).

Lack of basic farm inputs and implements were also a factor noted in father's FGDs as reasons for the low levels of cultivation and poor harvests. They indicate that access to tractors and sufficient water would increase the area of land under cultivation and therefore harvests.

The assessed communities' associate poor crop

harvests with poor crop sales, the latter being their main source of income which relates to food access. Poor food access occurs mostly in the dry Jilaal season (January-March). "In the hot season, there is a shortage of food, and there are no field crops" (health facility staff, Beletweyne town). This was reinforced by Community Health Workers (CHWs).

2.5.2. Insecurity and displacement

Insecurity is caused by fighting between local militia and warring clans and the situation remains highly volatile and insecure. Youth state that they join militia primarily to access food. This insecurity and the displacement that it causes inevitably hinders the cultivation and harvesting of crops and access to income through casual labour. Clan fighting in Bacaad village in 2013-2015 resulted in about 25% of the households being displaced from their villages. To date those displaced still do not have access to their farms for cultivation (NCA field reports).

2.5.3. Poor diet

The diet consumed in Beletweyne riverine livelihood zone is mainly carbohydrate. Below is a typical day's menu.

Breakfast: *Ambulo* (maize) porridge, or *anjera*.

Lunch: Nothing (except for a few who are better off).

Evening: Rice or *Ambulo* with or without beans.

The diet lacks diversity and meals are typically consumed once a day. Poor dietary intake is associated with poor food and income access.

2.5.4. Lack of access to safe water, sanitation and hygiene

During the dry season, river water becomes sour and dirty and changes colour to green causing diarrhoea and dysentery. Bacaad, Lebo and Hiran villages depend on river water for all household needs. Others such as Gambilla and Shabelo have wells to use during the dry season.

"In the hot and hungry season there is a lack of clean water" (TBA). "Because of this there is low immunity and disease outbreaks" (Teacher in Lebo village).

2.5.5. Disease

The incidence of disease in Beletweyne riverine community is high. "Malaria, measles, diarrhoea and colds are the common illnesses affecting children aged 2-5 years and anaemia affects women" (Mothers of under-fives in Bacaad and Hiran).

"Most outbreaks happen during the hungry season when there is low immunity hence acute malnutrition" (NGO health worker). In Lebo, a group of six women gave a similar response, adding ARIs and skin diseases.

Inaccessible health and nutrition services and EPI are the main reason behind the high disease burden. Health facilities are only available in Beletweyne town (except for WARDI OTP on the western side of the river). “They cannot afford medication but use herbs” (local TBA).

“There are no health services in this village so we do not have immunisations” (a community elder in Gabarlaawe village). However this was contradicted by others who said “we get every vaccination. Oral polio vaccination at birth, measles vaccination, Vitamin A supplementation...” (FGD Gabarlaawe village)

Other reasons given for not accessing health services include:

- The dominant practice of turning first to Quranic verses, before seeking medical help.
- Distance “The health centre is far away... The health centre is located far from Beletweyne Town... It needs time and money [to get there] and they don’t provide good services” (FGDs Bacad and Hiran villages).
- “The doctors don’t listen carefully... doctors and nurses don’t attend to you very fast so you waste time... and they don’t give enough drugs” (respondents in Shabellow village).
- Many community members do not understand the importance of visiting health facilities. Instead, “We give herbal medications to protect them from evil eye like: Malmal, Hildid and Luuban.”

There is clearly a wide range of factors which influence health seeking behaviour and, when health care is sought, the quality and worth or treatment received. All this demands further attention to address weaknesses in the system (such as delays and inadequate, unhelpful and untrained staff) to help improve health seeking behaviour. Until these basic issues are addressed and those concerned experience improvements in the services they access, little positive change in health seeking behaviour can be expected.

2.5.6. Poor IYCF

Based on the NCA findings, poor IYCF practices are prevalent among Beletweyne riverine communities as exemplified by quotes below.

“Nothing is given to the child within the first hour of birth... the baby is given a bath first, then breast milk... It is given water and breast milk, milk and sugar.” Reasons cited are “to give the baby enough energy... because breastmilk is not enough... to add energy”. They also indicated that “the mother is tired and not ready to breastfeed” (FGDs with mothers of children under five).

“New-born babies are given a mixture of water and sugar immediately after birth. Some of them cook sorghum and take the upper layer which is watery and give it to the new-born” (Quranic teacher).

In the communities studied complementary foods are typically introduced at birth, as indicated above. Bottle feeding is also used by many mothers once

they conceive, despite the risk of infection which heightens vulnerability to malnutrition. These examples highlight the need to improve IYCF practices in these communities and to engage influential community leaders in promoting such efforts.

The majority of respondents mentioned that mothers feed the babies when they are with them “We feed the baby when it is crying... when the baby is in need.” The fact that so many mothers are engaged in casual labour or farm activities outside the home and leave their infants with siblings, poses a serious challenge to frequency of breastfeeding. In general, poor IYCF practices are common in Beletweyne riverine communities and significantly contribute to acute malnutrition.

2.5.7. Poor socio-care environment for women and children

Young girls, women and children face a multitude of challenges. These include:

- Early marriage (especially for girls)
- Birth related complications including rapture of the uterus and miscarriage
- Sexually Transmitted Infections (STIs)
- FGM
- Pain and bleeding during sex.

“Mothers are weak, worried and tired most of the time because of heavy work load, poverty and lack of sufficient food for her family” (an NGO worker). A woman’s typical daily schedule of activities, as below, shows the lack of time to take care of herself and her children (Fathers’ FGD, Lebow village).

A woman’s typical daily schedule:

- 5am - 6am: Prepare breakfast, feed children and husband
- 6am - 1pm: Farm work
- 1pm - 3pm: Fetch water, firewood, prepare snacks for children (if available)
- 3pm - 4pm: Some rest
- 4pm - 9pm: Prepare supper, feed children and husbands, a few wash the children

Dominant taboos inhibit pregnant women and children from consuming some nutritious foods such as cow’s milk, sheep and lamb meat, eggs and honey. In response to why particular foods are not allowed mothers said “Because the baby will come out” and “Because it not good for the pregnant woman.” “Because the baby will die” and also “not to increase the baby’s weight” (FGDs with young mothers of under-fives in Bacad and Gabarlaawe villages).

Regarding who makes decisions about what pregnant women should eat, in Gabarlaawe it was indicated that “traditional midwife, mother, husband and her sister and her mother-in-law make these decisions” (a group of older women, Gabarlaawe). Another informant suggested that “about 90% use TBAs and 10% visit

the health centre for advice and at the time of delivery, because they [families] can't raise medical costs where they have to travel several kilometres to access medical help" (A CHW, Hiran village).

The above examples show aspects of the dominant poor socio-care environment which remains largely directed by tradition and culture. Negative cultural practices commonly create consequences of traumatic deliveries, excessive bleeding and pain among young women. This information serves to highlight the urgent need for social change in relation to dominant socio-cultural norms and the need to engage family decision-makers and community leaders as change agents to help secure more supportive environments for the girls and women concerned. Social and behavioural change is a long-term challenge.

2.6 Positive deviance among poor households

The study identified some interesting cases of positive deviance among poor households. Whereas malnutrition is mainly experienced among the poor, some poor households manage to maintain a good nutritional status.

The main factors facilitating positive deviance among poor households include:

- Persistent breastfeeding - Poor households that continue to breastfeed their babies even while the mother is pregnant have well-nourished children. A common practice is to cease breastfeeding when a mother conceives, with some opting to bottle-feed instead. This predisposes infants and children to diarrheal diseases and acute malnutrition.
- Access to income – Cases were found where access to regular income through casual work facilitated access to various items and services that had a positive impact on infant and young child nourishment.
- Single parenting - Households with a single parent head (female) reportedly had a worse nutrition status than others. The reason given was that they spent less time on child care.
- General awareness - Families with health awareness had better nutrition status.
- Good hygiene practices - Poor households that practiced good personal hygiene, including regular handwashing, and had a clean environment had better child nutrition.
- Belonging to social/ women's groups - Findings show that women who met regularly with others and shared ideas were more likely to have well-nourished children.
- Psycho-socio wellbeing - Happy, active and energetic mothers in general were seen to have well-nourished children.
- Households where the man takes khat or drugs are more likely to have malnourished children, while those with an apparently responsible family head (traditionally the father) appear to have better nourished children.



3. Discussion and Conclusions

Critical levels of acute malnutrition have been maintained in the Beletweyne riverine community over the past three years (FSNAU). The main contributing factors to this poor nutritional context identified through the NCA study are:

1. Drought, floods and insecurity (armed militia and clan fights) have caused loss of life, property (such as houses, land and field crops), displacement and deepening poverty. Displacement has hindered ability to invest in livelihoods and increased dependence on others for survival.
2. Conflict has also had a psychological impact as communities live in constant fear of further loss of life and property. Due to the prevailing insecurity, there is negligible humanitarian presence in the riverine livelihood zone, with agencies preferring to stay in Beletweyne Town which is slightly safer.
3. Poverty - 70-90% of the community were identified as poor in the wealth ranking exercise.
4. Food is mainly accessed through own production. Drought and floods result in household food losses in the short-term and low food stocks in the medium-term. As the sale of food stocks is the main source of income, contributing about 50-60% of riverine household income, the impact of drought and floods is significant.
5. Farming is characterised by low levels of mechanisation and the need to rent out household labour to better off households. Lack of knowledge to maximize crop production both in terms of seed selection and cultivation techniques.
6. Whilst a small number of households sell livestock products, mainly eggs and milk, which provides additional household income there is generally limited access to livestock.
7. Insecurity limits ability to access crop harvests, casual labour opportunities or invest in livelihoods. It also has a psychological impact on communities.
8. Livelihood profiling indicates that the Somali minority clans comprise the poor riverine community that are most affected by acute malnutrition. They are generally illiterate³, lack access to schools⁴ and to farming skills.
9. Poor IYCF practices and household diet.
10. During the dry season, the Shabelle River, the main source of water for drinking and household use, becomes unsafe leading to diarrheal diseases.
11. Floods cause fields to become inundated with water and often combine with household and human waste to contaminate water sources including the river. Seasonal floods are therefore always associated with outbreaks of malaria, diarrheal diseases and peaks in acute malnutrition.
12. High disease burden related to poor access to safe drinking water and sanitation, lack of primary health care services including immunization and lack of malaria prevention. STIs are common and treatment is inaccessible. Health care services are generally located in Beletweyne town, away from rural riverine communities, and often lack drugs. Maternal and child health care services are unavailable.
13. Some widespread socio-cultural practices such as FGM are deeply entrenched and have negative health consequences for the women concerned including complicated deliveries which are largely attended by TBAs only (over 80% based on the NCA study). Taboos over what a pregnant woman can eat limit access to required nutrients and contribute to acute malnutrition. Large families and a lack of child spacing negatively contribute to poor health and nutrition.

A number of findings were observed as contributing positively to nutrition in some poor households. Persistent breastfeeding, access to income, belonging to women's groups, having a two parent family with a present and responsible father, positive attitudes, improved levels of awareness and good levels of hygiene and sanitation all had a positive influence on nutrition in some poor households.

3 Only Lebo, one of the assessed villages has a primary school reaching grade 4, run by Save the Children. The other assessed villages (Bacad, Hiran, and Gabarlaawe) do not have a school.

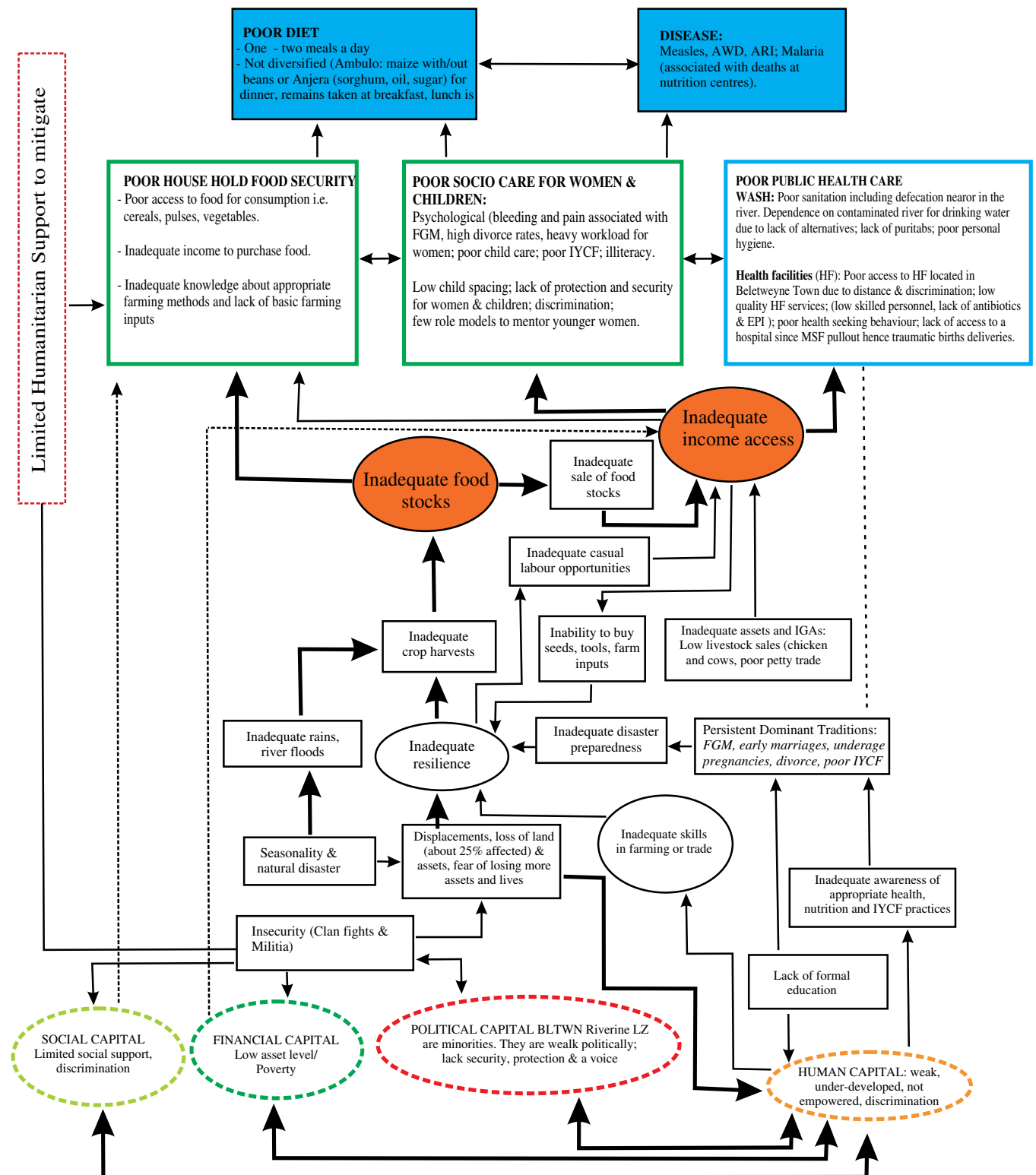
4 Schools are mainly available in Beletweyne Town, however these are privatized and inaccessible to poor households.



4. Key Recommendations

1. As crop production constitutes the main livelihood in Beletweyne Riverine communities, contributing to over 50% of food and income despite high insecurity, this livelihood needs securing for sustainable optimal nutrition. The study recommends the provision of small-scale agricultural farming support for approaches which make the most efficient use of available water, to increase field cultivation and harvests for households with access to land. This includes supporting access to appropriate farming techniques (i.e. Conservation Agriculture⁴), seeds and basic tools, as well as to technical crop management support (how to cultivate, plant, manage, harvest and store crops appropriately in local conditions). Advice on growing nutritional food is also recommended.
2. Increase access to public health services:
 - Provide health services in Beletweyne rural areas. Consider mobile services, or subsidies to private health care to enable the poor to access necessary services.
 - Provide MCH services where ante- and post-natal care can be assessed locally. To include immunization services, health education and advice on child spacing.
 - Raise awareness about health and nutrition within these communities. Include TBAs, older women (mothers-in-law) and men as potential change agents, given their influence on decisions about the types of food pregnant women and children eat.
 - Focus explicitly on personal and environmental hygiene, as well as appropriate household diets.
 - Address personal and environmental hygiene and WASH issues including dominant practices of open defecation and inadequate hand-washing. Link with related initiatives like local Community Led Total Sanitation (CLTS) programmes.
3. Provide OTP services in riverine areas close to areas of need and ensure Stabilization Centre access for severely malnourished children.
4. Develop long-term social and behavioural change initiatives to raise awareness about and strengthen IYCF practice. To include the promotion of exclusive breastfeeding, persistent breastfeeding and appropriate complementary feeding. Actively discourage bottle-feeding, except in extreme cases.
5. Strengthen the social welfare of women and children affected by acute malnutrition by supporting local social/ support groups, offering counselling services at health facilities and developing mentorship programmes where positive deviants can support families with malnourished children.
6. Explore opportunities to support income generation and to secure adequate access to food. Business skills and social welfare programmes should target more vulnerable groups in particular, including minorities.
7. Consider efforts to strengthen access to livestock (mainly chicken, goats and cattle), to ensure adequate household access to eggs, milk and meat and to strengthen access to income through related sales. Explore opportunities to provide the necessary veterinary support services.
8. Food security strategies need to take into account the impact of seasonality, increased reliance on irrigation rather than rainfall and the burdens faced by women and girls.
9. Enhance security and ensure the protection of women and children in particular from armed militia.
10. Proactively address barriers that serve to marginalize Somali minorities and which prevent them from accessing basic services and land.

5. Causal Pathway - Beletweyne Riverine Communities



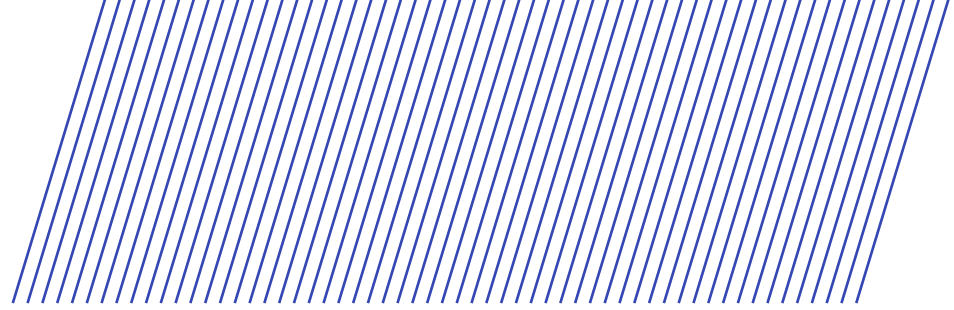
NCA Study among Dollow IDP Communities

5

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Dollow IDP Communities Table of Contents

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Executive Summary

Prolonged insecurity and the lack of a functional government in Gedo region, as in the rest of south central Somalia since the early 1990s, means that many livelihoods have been shattered. As a result, Gedo is hosting many Internally Displaced Persons (IDPs). IDPs generally live in poor conditions and face minimal livelihood options to sustain their families. Humanitarian interventions have been implemented in the region for many years, but rates of malnutrition have remained high compounded by numerous factors. As relative stability sets in, in parts of south central Somalia, there is need to understand better the main causes of the high malnutrition rates and address them more effectively.

This Nutritional Causal Analysis (NCA) study investigated and presents a 'multi-sectoral' overview of the key factors affecting nutritional status among select IDP communities in Dollow District, Gedo region. The NCA study aimed first to establish the relative importance, or perceived weight, of particular contributory factors, including basic, underlying and immediate factors that influence nutritional status. The study also investigated the relationships between these factors.

Key Findings

In some instances, NCA findings from the Dollow IDP communities studied appear to directly contradict evidence from other sources, including some cited in the literature review earlier. For example, an FSNAU 2015 study suggests wide access to sanitation facilities in these communities whereas the NCA findings indicate otherwise. Therefore, reported findings below need to be interrogated as IDP perceptions shared in the NCA research raise questions in some cases about the misfit between perceptions and reality, as well as about the factors which might underlie experience being self-reported, as opposed to what apparent facts tell us.

1. Poor household food security. This is characterized by inadequate access to food, resulting largely from lack of income and inadequate access to humanitarian assistance.
2. Poor birth spacing. Households typically have a baby each year, following early childbearing (many girls become first time mothers at 15 years old). This generally reduces the quality of care given to infants and children as the mothers are too young and have children too close together to be able to feed and care for many young children effectively.
3. Suboptimal Infant and Young Child Feeding (IYCF) and care practices. Local examples shared include giving new-borns honey and water within 1 hour of birth, the premature introduction of complementary food as a result of mothers' heavy workloads (due to high levels of casual labour and household chores).
4. Environmental hygiene. The cleanliness of the camps and especially of latrines in the IDP settlements, is a major concern.
5. Caregivers' heavy workloads. Many mothers in these communities are typically engaged in casual labour for the whole day and therefore unable to feed or care adequately for their children. This relates to meals, hygiene and leaving infants and young children in the care of their young siblings.
6. Dominant socio-cultural beliefs and practices. These include feeding babies from one breast only and not giving children over one cow's milk which is believed to cause worms. The majority of caregivers will first consult traditional healers in the case of illness. Pregnant mothers eat a restricted diet which excludes animal proteins, to avoid delivering a large baby for fear of painful child birth. This fear is amplified following FGM. In these communities it is commonly taboo to give animal liver and kidneys to pregnant women and children under 2 years old.
7. High rates of childhood diseases such as diarrhoea in children under five due to poor environmental hygiene. Seasonal malaria is common during the rainy season.

8. The ongoing influx of IDPs, which continues to increase competition for available, but generally diminishing resources.
9. Perceptions of inadequate access to humanitarian assistance including inadequate family rations and common claims of favouritism of particular groups.

Key Recommendations

1. Address environmental health issues, including ensuring access to clean toilets and safe drinking water for all IDPs.
2. Explore opportunities to introduce day care centres for children when mothers have to leave their children to seek casual labour. This could include expanding existing madrasa facilities (which most children attend) to include day care for infants and younger children.
3. Ensure the integration of basic health (including Mother and Child Health (MCH)) and nutrition services among the IDPs. Integrate nutrition

services with protection rations and ensure equity in distribution, to avoid the inappropriate sharing of Ready to Use Therapeutic Food (RUTF) within and between families.

4. Engage religious and community leaders, teachers, Community Health Workers (CHWs) and other influential community members in nutrition promotion efforts, IYCF in particular.
5. Explore opportunities to stimulate Income Generating Activities (IGAs), especially amongst the most vulnerable community members.
6. Monitor rigorously and ensure that the most vulnerable IDP families have access to necessary humanitarian assistance.
7. Implement short term and long term behavioural and social change programmes to tackle the multiple factors that mitigate against optimal IYCF.



Context

1.1 Background

Gedo is one of the regions in Somalia that has long been adversely affected by the cumulative effects of extended conflict and recurrent natural disasters such as drought. These events have resulted in the disruption of livelihood systems and displacement of the population from within and around Gedo region, with IDPs settling in Dollow. Dollow District has two main informal IDP camps, Kabasa and Qansalay settlements, which are further subdivided into sections depending on the time of arrival of the IDPs (UNOCHA Situation Analysis October & November 2012). According to UNOSAT (March 2013), the total IDP population of Dollow was slightly above 16,000. However, since this date arrivals have continued. For example, in Gu 2015 22% of the households assessed by FSNAU were reported to have arrived in the last twelve months.

The IDPs studied reside in Dollow District of Gedo Region in south-west Somalia, which borders Ethiopia and Kenya. The region consists of six districts including: Bula Hawo, Bardera, Dollow, El Wak, Garbaharrey (the regional capital) and Luq. Approximately 75% of the population is pastoralist. The remainder is comprised of urban dwellers, agro-pastoralists and riverine agriculturalists along the Juba and Dawa rivers.

1.2. Introduction to Community Studied

An OCHA profile of the IDP camps shows that of the IDPs in Kabasa 23% originate from Bay, 36% from Bakool and 34% from Gedo. Most have been displaced due to conflict and drought. The assessment revealed that some 40% of Dollow residents are from the host community, meaning they have relocated from Dollow town in search of assistance. The IDPs in Qansalay settlement all originate from Gedo and have been displaced as a result of prolonged conflict and drought. Most IDPs have left behind property including houses and land. These properties are either being minded by

relatives or have been taken forcefully by insurgents. Most IDPs claim they came to Dollow because it is peaceful and for humanitarian assistance. The majority of IDPs state that they do not intend to go back to their original home in the absence of peace and security. However, some say they may return if their properties are given back to them. Many are keen on reconciliation and express a willingness to take part in national development.

According to the multi-agency Qansalay assessment, 86% of households reported that they would prefer to relocate elsewhere rather than return to areas of origin. In contrast, in Kabasa approximately 58% indicated that they plan to return to their original homes, while 31% want to relocate. IDPs in both settlements cited fear of forced recruitment by Al Shabaab, as well as difficulties in resuming agricultural livelihoods and having enough food for their families, as main factors which mitigate against their movement either to places of origin or elsewhere.

1.3. Nutrition Situation

All the seven SMART nutrition surveys conducted between 2012 and 2015 among Dollow IDPs recorded Critical levels of acute malnutrition, with four of these surveys, including the most recent conducted in May 2015, recording Global Acute Malnutrition (GAM) prevalence of >20%. The other three surveys had GAM levels of >15%. In 2011, no SMART survey was conducted among Dollow IDPs but the rapid MUAC conducted reported the proportion of acutely malnourished as 21.8% indicating a Very Critical level of acute malnutrition according to FSNAU classification (See Figure 1 below). Overall, these results show a persistence of Critical malnutrition with median GAM prevalence of 21.6% and median Severe Acute Malnutrition (SAM) prevalence of 4.8%. Of concern is the increased trend in the prevalence of acute malnutrition recorded in the last one year from 18.6% in July 2014 to 26.4% in May 2015. The high level of

acute malnutrition is attributable to food insecurity due to lack of stable access to food or income (FSNAU Gu 2012a; FSNAU Deyr 2012b). Equally, persistently high morbidity levels have been directly linked to the high levels of acute malnutrition. According to FSNAU surveys conducted in the last three and half years, the overall median prevalence of children reported to have had one or more illness two weeks prior to the assessments was 41.8%. Specific median illness prevalence in the review period are: AWD 15%, measles 1.4%, ARIs 19.6% and fever or malaria 31.7%.

Poor IYCF has also been linked to high levels of acute malnutrition. Humanitarian assistance including treatment for acutely malnourished children and the provision of food aid and health services, have been mitigating factors. According to the Somalia Health Cluster 3W matrix (2015), various local and international organisations have been involved in health, nutrition and WASH activities in Dollow district, for both host and IDP populations. These include but are not limited to:

- Health services - IOM, (WVI) and HDC involved at facility and community levels.
- Nutrition services - HIRDA, TROCAIRE, CEDA and WVI and with support from UNICEF and WFP.
- WASH services - IOM, DRC, COOPI, NAPAD, ASEP, SHRA and WVI.

The provision of health, nutrition and WASH services mitigates levels of acute malnutrition.

Micronutrient status: No comprehensive micronutrient study has been conducted among Dollow IDPs for the last five years. However, a comprehensive micronutrient study conducted by FSNAU and partners

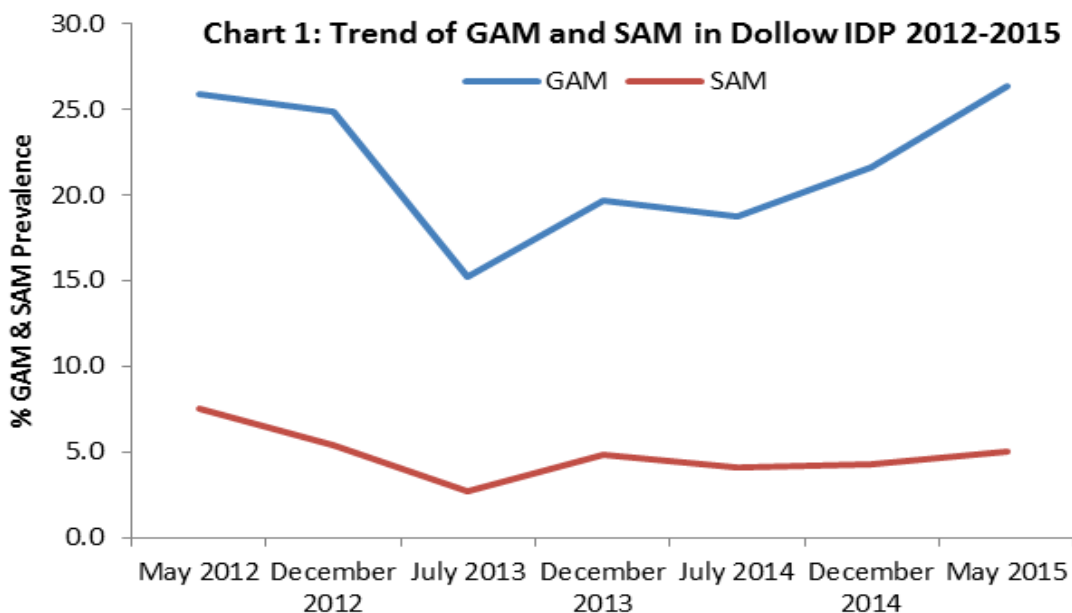
in 2009 covered Gedo and surrounding regions from where Dollow IDPs originate. The micronutrient survey results for SCZ were: visible goitre among children aged 6-11 years: 0.3%, anaemia prevalence of 36.5%, iron deficiency of 22.9% and vitamin A deficiency of 40.3%. In addition, micronutrient status among women of reproductive age was as follows: vitamin A supplementation coverage 22.8%, visible goitre 1.4%, anaemia 53.8%, iron deficiency 43.3% and vitamin A deficiency 58.9%. A review of vitamin A supplementation (a proxy indicator of vitamin A status), shows relatively high coverage with a median of 71.2%, recorded in six FSNAU surveys in the last three and half years. The July 2015 FSNAU survey recorded vitamin A supplementation coverage of 75.2%. Whilst this figure is high, it remains below the SPHERE standard. The relatively high coverage highlights the presence of humanitarian agencies providing nutrition and health assistance to IDPs.

IYCF data has not been collected regularly among Dollow IDPs in the last five years. The latest FSNAU survey (May 2015) showed the following rates of breastfeeding for children under two:

- 47.4% still breastfeeding at the time of the survey
- Continued breastfeeding to one year: 55.1%
- Continued breastfeeding to two years: 11.9%
- 51.7% met minimum meal feeding frequency
- 1.1% were reported to have met the minimum dietary diversity (consuming the four food groups).

These results highlight poor IYCF practices which have also been linked to high levels of acute malnutrition in the reports reviewed.

Figure 1: Trend of GAM and SAM in Dollow IDPs 2010 - 2015



1.4. Food Security Situation

In the last five years, Dollow IDPs have faced a precarious food security situation with either Crisis (in Deyr 2013 and Gu 2014) or Emergency food insecurity phases (all other seasons). There is no food security status given in Deyr 2012 and Gu 2013. The food security status of IDPs in Dollow town is largely determined by their ability to get income and the prevailing food prices. Market food purchase is the primary source of food for Dollow IDPs, but food aid and food gifts are also important sources. IDPs largely lack stable sources of income as they rely on unsteady and low paying casual labour. The FSNAU post Deyr 2013 study reported that approximately 40-70% of the assessed IDP households cited casual labour (mostly portage and construction) as their main source of income, followed by self-employment and petty trade (FSNAU Deyr 2013). In addition, IDPs have poor asset bases leaving them with few or no items to dispose of to access income for food in times of scarcity. This situation leaves them highly vulnerable to food prices. Figure 3 shows the trend of prices for the staple cereal Sorghum in the last five years in Dollow markets. (FSNAU market data, November 2015). The IDPs also

have weak social networks, limiting the option to access food through credit or gifts. Given IDPs' heavy reliance on market food purchases, their ability to access food is determined by their purchasing power. This in turn is influenced by their access to casual labour, daily wage rates, food prices and availability.

In post Gu 2014, the deterioration in food security among Dollow IDPs was due to increasing food prices (due to the poor Gu 2014 rainfall and subsequent limited harvest) and a reduction in the daily wage rate, which caused a decline in purchasing power among IDPs. The daily wage in July 2014 could buy only about 13 kg of cereals, in contrast to January 2014 when it would have bought 17 kg and 20 kg in July 2013. Similarly, the emergency food security reported in Deyr 2014 and Gu 2015 was also linked to declining purchasing power and resulted in poor food consumption among Dollow IDPs (FSNAU, Gu 2015a). These situations highlight the high degree of vulnerability of IDP households to food price shocks (Gu 2014a). Figure 2 below shows the trend of daily wage rates in the last five years in Dollow town (FSNAU market data, November 2015).

Figure 2: Trend of Daily Labor Rate in Dollow IDP 2010 - 2015

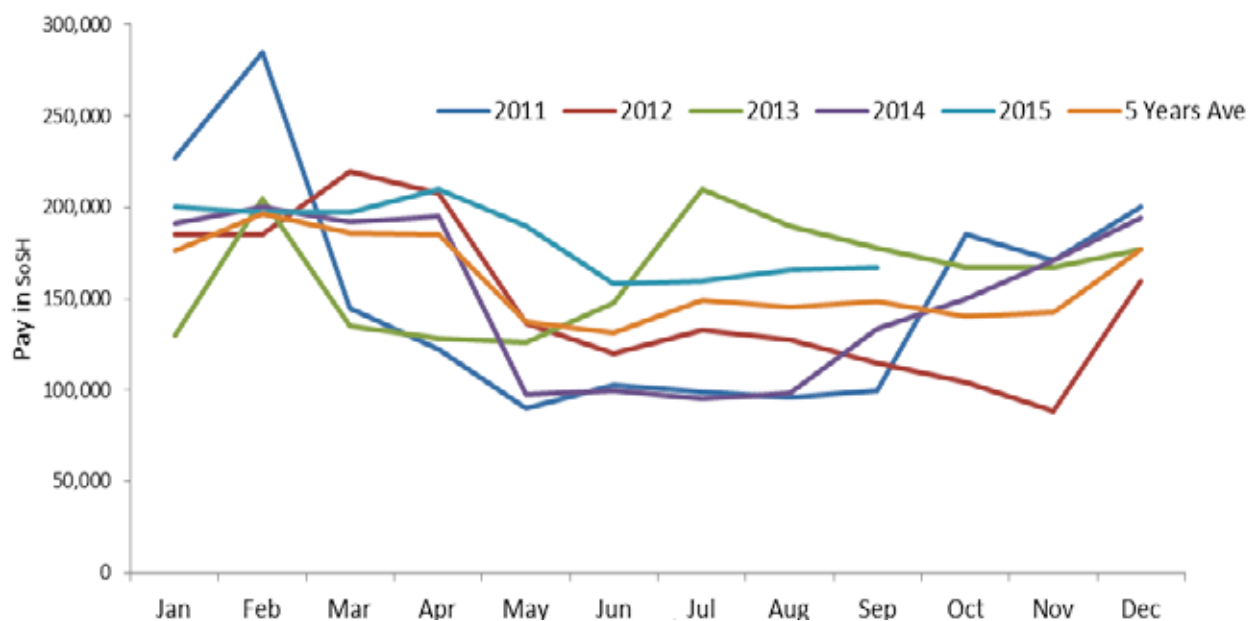


Figure 3: Trend of Prices of 1Kg of Red Sorghum Dollow IDP 2010 - 2015

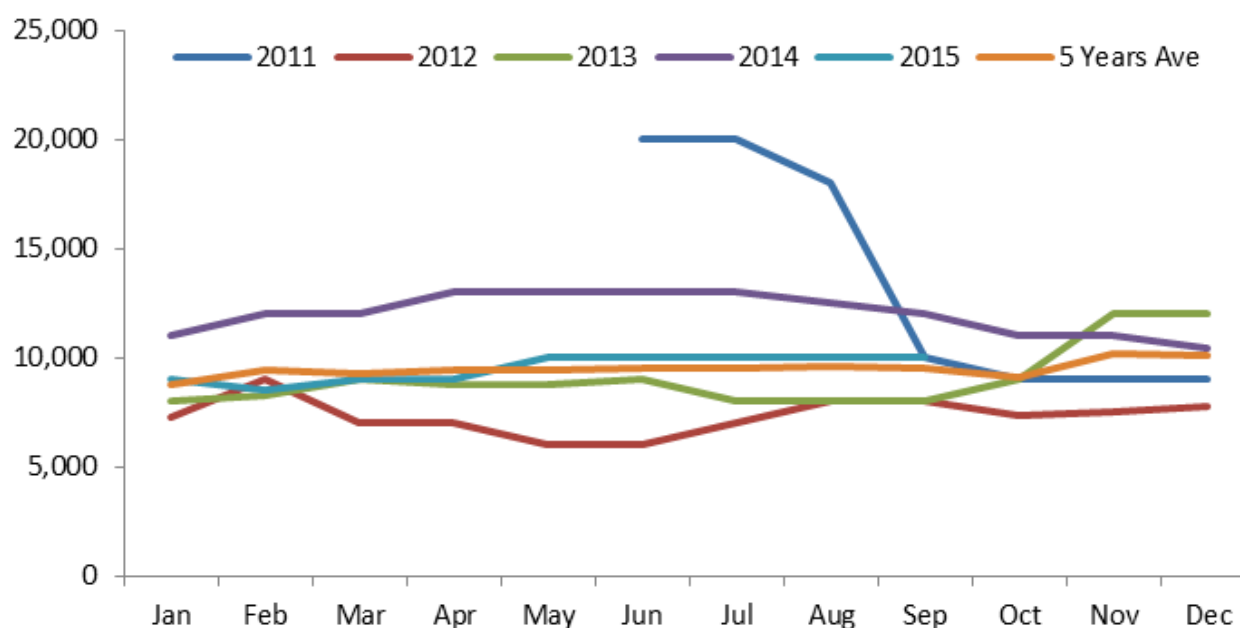


Table 1: Trend of Food Security Phases among Dollow IDPs 2010 - 2015

Months	July 2012	December 2012	July 2013	December 2013	July 2014	December 2014	July 2015
IPC Food Security Phase	Emergency (phase 4)	No classification	No classification	Crisis (phase 3)	Crisis (phase 3)	Emergency (phase 4)	Emergency (phase 4)

1.5. WASH

Access to sanitation facilities (latrines) and access to water from sources considered safe are the only WASH indicators available in reports reviewed. These WASH indicators have not been collected frequently. According to FSNAU Gu and Deyr 2014 surveys, Dollow IDPs have relatively good access to safe water and sanitation facilities. FSNAU's May 2015 survey indicated that 95.9% of households had access to sanitation facilities (latrines), while 93.5% obtained water from safe sources. This high access to safe water and sanitation is linked to the efforts of humanitarian actors and mitigates against waterborne diseases. Interestingly this largely positive picture largely conflicts with NCA Study findings, raising significant questions.

1.6. Humanitarian Support

The following table gives an overview of organizations delivering services in Dollow District. SNS partners don't operate in Dollow District but WFP works with WVI, who implements through local partners in Dollow. The data below comes from the 3W Matrix developed by all Clusters for the first quarter of 2015.

Humanitarian assistance	Organizations
OTP (Outpatient Treatment Programme)	HIRDA, CEDA, TROCAIRE,
BSFP (Blanket Supplementary Feeding Programme)	WVI
TSFP (Targeted Supplementary Feeding Programme)	WVI
IYCF	CEDA and BPPSC
Healthcare	WVI and HDC
WASH	IOM, NAPAD
FFA (Food For Assets)	WVI
Education and Vocational Training	ADRA, HIRDA, NAPAD, NRC and Norwegian Church Aid



2. Findings and Analysis

2.1. Livelihood Characteristics

1. Most Dollow IDPs did not know their age but the estimated ages of mothers and fathers was between 12 and 45 years old. Most mothers seemed to be under 30 years old. Older mothers were 50 years old and above. In terms of levels of formal education, the study showed that less than 10% had ever attended primary school and no study participants had reached intermediate or secondary school.¹ “In this village very few women have attended primary school, the same with men” (a father). This was repeated in almost all Focus Group Discussions (FGDs) held with mothers of reproductive age, fathers, mothers of malnourished children and older mothers.
 2. The caregivers interviewed described themselves as casual labourers. All FGDs held with IDPs reported that their main source of food was purchase (70%-100%), followed by humanitarian assistance (0-30%). Foods purchased, in order of priority, included maize, millet, rice, spaghetti, sorghum, sugar, cooking oil, beans, milk and meat. The caregivers indicated that the informal sector was their main source of income, where they provided casual labour such as washing cars, working with donkey carts and washing clothes in the homes of people living in town. Other income earning activities included charcoal burning, constructing homes, working as farm labourers or in small retail shops.
 3. The research for this study included participatory exercises such as proportional piling and ranking using available local material (e.g. small stones and sticks), to identify local patterns and links between income levels and household spending. These findings are outlined in Table 2 below.
- Other income obtained by caregivers in the IDP community is generally used for purchasing water and firewood and for health purposes (buying medicine or for expensive transport to a health facility), . These are the three main things Dollow IDPs claim to spend their money on.
- In terms of wealth distribution, study respondents classified the majority of Dollow IDPs as poor² and very few as middle income families³. No IDPs were reported to be among the better off⁴.

1 The percentage was arrived at through proportional piling by various groups

2 Being “poor” meant that households would not manage to consume one adequate meal a day, according to local perceptions and NCA findings.

3 Being middle income meant that IDPs could afford 1 -2 meals a day, according to the community studied.

4 Being ‘better off’ meant that they could afford three or more meals a day.

Table 2: Sources of food, main sources of income and how income is spent among IDPs in Dollow

Sources of food	Percentage (%)	Main Sources of income	Percentage (%)	How income is typically spent	Percentage (%)
Food purchases	70-90	Casual Labour	0-100	Food	50
Humanitarian assistance	0-30	- Washing cars		Health (purchase of medicine and transport to the health facility)	20
		- Washing clothes		Water	15
		- Charcoal burning		Firework	10
		- Constructing homes		Education	5
		- Farm labour		Food spending averages	Percentage (%)
		- Small retailer		Maize	20 - 30
		- Shops		Millet	15 - 20
		- Donkey carts		Wheat flour	12 - 20
				Spaghetti	10 - 20
			Rice	10 - 20	
			Meat	8-10	
			Milk	0-5	



2.2. Historical Timeline of Events Impacting on Nutrition

Part of each NCA study involved a participatory process to collectively identify key events that have impacted on nutrition and to develop them into a local historical timeline. Table 3 below summarizes the historical timeline developed by Dollow IDPs. It includes the year, month, key events and ways in which community respondents feel these have impacted on nutrition.

Table 3: Historical Timeline

Year	Month	Event	Impact on nutrition
2011	March	Drought Conflicts	<ul style="list-style-type: none"> - Lack of food amongst displaced people. - New displacement in Dollow. - Outbreak of diseases. - No humanitarian assistance. - Loss of life due to extreme drought and starvation.
2012	April	Heavy rains Outbreak of cholera	<ul style="list-style-type: none"> - Low food production due to floods that have destroyed crops. - Destruction of shelter. - Loss of life and high rates of malnutrition. - Lack of sufficient food.
2013		Droughts Wars	<ul style="list-style-type: none"> - Low food production and increase in new influxes in the IDPs from Baled Hawo.
2014	May	Droughts Voluntarily repatriation of IDPs	<ul style="list-style-type: none"> - The extreme drought has led to low production of food/ food insecurity.
2015	April	Strong winds	<ul style="list-style-type: none"> - Destruction of homes.
	Jan-May	Shortages of water and food	<ul style="list-style-type: none"> - Food insecurity.

2.3. Seasonality

The NCA respondents also explored seasonality trends related to acute malnutrition, water resources, harvests, milk availability, household economy, movements and family organization, health and social events. This information is summarized in Table 4 below.

Table 4: Seasonal trends at the IDP camps in Dollow

H = High; M=Medium; L = low; U = unknown	Months of the year (January to December)											
	J	F	M	A	M	J	J	A	S	O	N	D
Acute malnutrition												
Prevalence of acute malnutrition	L	U	H	H	H	M	L	U	U	M	H	H
Peak of admissions in nutrition centres	L	U	H	H	H	M	L	U	U	M	H	H
Water resources												
Rainy season	M	U	L	H	H	M	U	U	U	L	H	H
Underground water availability	L	M	M	H	H	L	U	U	U	U	H	H
Ground water availability	U	L	L	H	H	U	U	U	U	U	H	H
Other sources (borehole, berkads)				H	H						H	H
Only a river	L	U	M	H	H	H	M	L	U	M	H	H
Harvests												
Hunger season	U	U	U	U	U	U	U	U	U	U	U	U
Harvest (staple food)	U	U	U	U	U	U	U	U	U	U	U	U
Harvest wild fruits	U	U	U	U	U	U	U	U	U	U	U	U
Harvest vegetables	U	U	U	U	U	U	U	U	U	U	U	U
Milk availability												
Other	U	U	U	U	U	U	U	U	U	U	U	U
Household economy												
Food market prices	M	L	L	H	H	H	M	L	L	M	H	H
Terms of trade (livestock/grain)	M	L	L	H	H	H	M	L	L	M	H	H
Farm employment opportunities	U	U	U	U	U	U	U	U	U	U	U	U
Temporary jobs opportunities	U	U	U	U	U	U	U	U	U	U	U	U
Movements and family organization												
Moving to farming villages	U	U	U	U	U	U	U	U	U	U	U	U
Livestock transhumance (seasonal movement of people with livestock)	U	U	U	U	U	U	U	U	U	U	U	U
Farming labour	L	U	U	M	M	M	L	U	U	L	M	M
Health												
Diarrhoea	M	U	L	H	H	M	U	U	U	L	H	H
Malaria	M	U	L	H	H	H	L	L	L	M	H	H
Acute Respiratory Infections	U	U	U	U	U	U	U	U	U	U	U	U
Social												
Social Events	U	U	U	U	U	U	U	U	U	U	U	U
Peak of birth	U	U	U	U	U	U	U	U	U	U	U	U

2.4. Local Definitions and Understandings of Malnutrition

FGDs with community members explored local perceptions and understandings of malnutrition. Most FGD respondents linked malnutrition to both food intake and disease. They said malnutrition is a result of severe hunger due to insufficient intake of food. Some referred to malnutrition as a “*lack of feeding with proteins and vitamins. It is an imbalanced diet*” (FGD with mothers of malnourished children, Qansalay IDP camp). Another group of fathers’ said “*malnutrition is a loss of appetite and prolonged illness*” (FGD with fathers). Many respondents referred to it as a disease. They said that a malnourished child falls sick most of the time and suffers from colds, coughs and diarrhoea. One key informant said that “*malnutrition is a bad disease that later becomes tuberculosis*” (Qansalay IDP camp). They also said it presents itself as a loss of appetite, swollen body, hair colour change and weakness of the body. Respondents further pointed out that a child with malnutrition often does not sleep well and is always crying. He develops a distended stomach, has oedema and thin legs, is tired all the time and sits in one place as he does not like to walk nor play with other children.

“A malnourished child will not sleep well and the eyes become pale” (an older mother, Qansalay IDP camp).

“A child is malnourished when he/she cries the whole day” (a father).

A mother added that “*a malnourished child becomes very weak due to loss of appetite*” (mother of a malnourished child).

“Malnutrition is when a child feels tired very fast and cannot walk” (an older mother).

Such examples show how close the reality of malnutrition is among Dollow IDPs.

Generally, the NCA study found that most IDPs have a good understanding of malnutrition. They understand that poor diet which lacks essential nutrients generally causes malnutrition and that malnutrition in turn leads to an increased disease burden. Field researchers were impressed by the levels of knowledge community members exhibited during the study.

“I would never imagine that the old mothers had such a good understanding of malnutrition... There are many things they know that we don’t understand in our generation... I wonder why then malnutrition is so high amongst our people... maybe limited resources, as they say, ‘put yourself in their situation’ (female NCA researcher from Kabasa 2 village).

When asked to explain further the difference in knowledge, several NCA researchers argued that insecurity in Somalia has greatly contributed to the current situation. Mothers have no time to transmit such knowledge and many young people do not go to school where they could learn many things, including about nutrition. As well, schools are not generally available and if they are, they lack teachers with experience.

2.5. Key Factors Contributing to Acute Malnutrition

2.5.1 Poor household food security

Inadequate food access

Food access includes whether households or individuals have sufficient resources to acquire an appropriate quantity and quality of food. FGDs with Dollow IDPs revealed that access to food among IDPs remains limited. The IDPs mainly depend on food assistance from international organizations like the WFP.

“We don’t have anything, we are in the camp without means, we depend on food assistance from organizations but it is never enough. Our economy is bad, please help us” (older mother).

Due to limited options for earning an income, IDPs generally lack their own food sources, options available remain minimal, unpredictable casual labour opportunities.

The NCA Dollow IDP study revealed that lack of sufficient income is a strong contributor to acute malnutrition because most households rely on purchases for food intake compared to other areas where households rely on their own food production for food. Insufficient income to purchase food fuels high dependence levels on aid from international and local organisations. Many IDPs are not able to find any casual labour.

“Because of lack of job opportunities we miss our daily bread which in turn results in hunger and starvation” (a mother with a malnourished child, Qaxoti Degan village).

“Low income has resulted in the family not having enough money to buy essential food items such as milk, cereals, rice, beans, meat and vegetables leading to inadequate food intake by the family. This in turn has led to hunger and starvation and when prolonged to malnutrition” (a father, Qaxoti Degan village).

NCA research respondents acknowledged the importance of and need for an adequate and diverse diet, noting that inadequate access to food is a major constraint. Whilst there is not enough food in the market, the little available many people cannot afford to buy. Fruits are available in Dollow markets but the IDPs are not able to buy them. Lack of job opportunities was noted as a key constraint. Respondents felt that if income generation opportunities existed to them they would be able to purchase adequate food to feed their families and thus conquer acute malnutrition.

Poor food availability

Food availability, either from own agricultural production

or import, addresses the supply side of food security, The NCA study established that availability of food in IDP camps in Dollow remains limited, with IDPs getting their food mainly from humanitarian assistance and their own sources. Organizations involved in food related assistance include the WFP, which partners with WVI and implement, through local organizations such as RIO, CORD, CAFDARO and CEDA.

However, the food IDPs get from these sources is inadequate. They do not get enough of all types of food including proteins, carbohydrates, protective foods and clean water. *"We lack milk both breastmilk and animal milk from cows, camels and goats"* (an older mother, Kabasa village). *"Lack of protein foods such as beans, fish and green vegetables lead to acute malnutrition"* (a mother). *"Lack of proper feeding is the cause of malnutrition among the children under five years"* (a father, Kabasa IDP camp).

A CHW noted that *"The NGOs provides Plumpy'Nut only for malnourished children below five years old."* This causes challenges as mothers feel unable to give this Plumpy'Nut just to the malnourished child when the whole family is hungry, so inevitably the rations provided are shared. Subsequently the malnourished child does not get enough Plumpy'Nut to eat and takes longer to be cured. Pumpy'Nut is seen as food and not as treatment so it is commonly shared among the family members.

2.5.2 Lack of basic knowledge on feeding practices

From discussions held with both young and older mothers, it is clear that the research participants are aware of the need for a diverse diet and adequate food intake to help prevent malnutrition. During FGDs it was stated that *"the children are malnourished because they are not given milk and they do not eat beans, vegetables and meat since they do not have access to such food items"* (FGD with women). It is therefore not necessarily a lack of nutrition knowledge that fuels acute malnutrition in this context but, rather, inadequate access to food and lack of knowledge regarding appropriate feeding practices, food preparation and hygiene.

The study observed that most caregivers are not able to purchase food and consequently do not feed their children a balanced diet. However, inadequate knowledge does greatly affect feeding practices among IDPs. It was stated that *"parents lack knowledge on how to feed their child properly"* (an older mother, Qaxoti Cusub village). Another shared that *"Ignorance of the mother on what to feed her children results in acute malnutrition in this camp"* (a mother, Qaxoti Cusub village). Among poor feeding practices is the common practise of breastfeeding a baby from only one breast throughout the lactation period. They said that one breast was for the husband. Consequently, the baby, may not get enough milk feeding from only one breast may not get enough milk .

A fathers' FGD at Qaxoti Degan camp observed that women had very little knowledge and skill in food preparation and

cooking. They only know how to boil rice and spaghetti and how to make njera, made from wheat flour and a little yeast. This has an impact on nutritional levels because families end up eating mainly carbohydrates day in and out, whereas appropriate nutrition demands that food is prepared and cooked properly and includes adequate dietary diversity. One of the fathers commented that *"The best thing you can do for us is to teach the women how to prepare different types of food"* (an older father, Qaxoti Degan camp).

Another aspect established during the study was ignorance on the significance of good hygiene to the nutritional status of infants and children. This is discussed further below. Good sanitation and hygiene practises are critical in contributing to the prevention of malnutrition. Most caregivers seem to know little about good hygiene and child care practices. *"Lack of awareness on good hygiene and child caring practices results in acute malnutrition. There is no home with good hygiene and child caring in this village"* (father, Qaxoti Degan village).

2.5.3 Lack of child spacing

Cultural beliefs, lack of birth spacing and early childbearing contribute to low birth weights and affect household resources and the ability to provide adequate care. As highlighted by a father, *"there is poor breastfeeding here because mothers get pregnant and they stop the child breastfeeding even before it is time"* (Qaxoti Degan camp). It is a dominant cultural belief that the baby in the womb will suffer if a lactating mother continues to breastfeed during her pregnancy. Premature stopping of breastfeeding for this reason has a significant impact on the health and nutritional status of many babies and infants.

Discussions with both young and old women reveal that FGM, as soon as a young girl starts having her monthly periods, (mostly between the ages of 11 to 15 years) is quickly followed by marriage. Soon after healing, she is in most cases married through an arranged marriage. A key informant in Dollow declared that *"there is nothing wrong with FGM... If you had gold, would you not put it in a bag and tie it very tightly so that it is not stolen? ...What I do not agree with is early marriage, in a lot of cases to an older man whom you have not even met."* Many FGD respondents shared these views.

2.5.4 Low levels of formal education

Caregivers' levels of education can be important when it comes to nutrition, infant and child health. Levels of education help to define socio-economic status and care practices adopted. Heaton et al (2005) found that the impact of maternal education on child under-nutrition was reduced, but not eliminated, when socioeconomic status was measured. Other routes to gain the knowledge needed include through social networks, media and health programmes. One study found that nutrition knowledge may have a greater impact on child nutrition than formal maternal education (Appoh et al. 2005). Most caregivers in Dollow IDP camps had not attended formal school.

When asked to approximate the proportion of caregivers in Dollow who had ever attended school, respondents indicated that less than 10% had completed primary level, with no one reaching intermediate or secondary level. Enrolment rates in class one for both boys and girls are similar between the sexes, but retention rates are higher for boys than for girls. The above picture is interesting given that education is being offered freely to the IDPs, funded by NRC and Norwegian Church Aid. *“All children above 13 years go to school in lower primary, because it is free and founded by NRC and Norwegian Church Aid”* (an older mother, Qaxoti Cusub). Unfortunately, the research team did not get a record of the enrolment, retention and transition rates for girls and boys to verify information shared on early girl child drop-out rates and reasons given.

When asked to approximate the proportion of boys and girls who attend school, respondents in both FGDs and KIs specified that about 60% of boys and girls go to primary school. The study found out of those who never went to school, the lack of school uniform was the main obstacle, while others have newly migrated and yet to settle before they can secure a space in school. Some children remain at home to take care of younger siblings whilst their caregivers/mothers engage in casual labour and other work.

On the other hand, the study established that all children receive religious education, where they are taught Islamic history and how to read the Quran. *“Religious leaders take care of the children by telling them Islamic stories and reading the Quran”* (an older mother, Kabasa IDP camp). Another added *“the religious leaders do not know about children, they know nothing about childcare. The only good thing they do is to pray when a child is sick.”* The fact that all children, both girls and boys, go to Quranic School could be an avenue for awareness raising on hygiene and sanitation and its impact on health and nutrition. This could be done by religious leaders and the children could be encouraged to carry the lessons home to their parents. The messages would likely be taken seriously by both the pupils and the parents since they are given by the religious leaders. Another opportunity would be to teach women about hygiene and sanitation and its impact on health and nutrition. There are over one hundred divorced women in Kabasa IDP camp who attend informal classes organised by DRC on a regular basis, presenting opportunities for this.

2.5.5 Sub-Optimal IYCF and Care Practices

Psycho-social situation of the mother

Discussions with both older and younger women highlighted that they link their heavy workloads with an inability to care for their children properly. Other factors with an impact on child care included weak family income management, inadequate maternal well-being and the characteristics of particular children. Poor psycho-social care remains an important contributing factor to acute malnutrition. A number of mothers have to leave their

children in the care of elder siblings or unattended, to engage in work and household chores. *“The daily workload of mothers includes cleaning, cooking and helping her mother, fetching water, casual labour”* (an older mother, Qaxoti Degan camp). At the end of their heavy work days most mothers are hungry, tired and feel worried. Mothers worry especially about what their children will eat and their health. This situation is exacerbated by lack of sufficient food to give to the family, especially the children.

Caregivers in the IDP camps often become mothers when they are very young and ill-prepared for life as a wife and mother. The young women have no decision making powers on when and whom to marry and once married cannot make a decision on when to have a child. This is compounded by lack of awareness on family planning services. An FGD with young mothers revealed that before they got married they worried a lot about marriage and what it would be like and felt ill prepared for the reality. Time of marriage and the proposed husband are always kept as a secret which adds to their anxiety. One young girl said to the research team *“when I think of my marriage, I cannot eat nor sleep. I have so much fear, I do not know what will happen to me”* (young girl). Another (divorced) said *“I got married at the age of 15 years and I had it very rough because my husband, who was a drunkard, abandoned me as soon as I became pregnant and my mother in-law refused to give me any food because she said I was lazy. I became sick and very thin, I almost died”* (a young divorced mother).

The mothers spend a lot of time looking for casual work, such as housework in better off residential homes away from the IDP camps. The work includes washing clothes, cleaning, and collecting firewood. They also fetch water and collect building sticks which they sell for a little income. At the end of it they may get a little money or nothing. *“Mothers work during the day, they look for firewood from the bush and sell the whole day in the market and nobody is left to take care of the children at home”* (a father, Kabasa camp). Such experience makes many mothers tired, weak and unhappy often resulting in them not taking good care of their family and children in particular. During FGDs in the IDP camp young women said *“the mother cares for herself, but the children... she will not care for them until she gets someone to help her”*. However, when mothers have income to buy the basic needs of their family such as food, water and clothes, they feel happier. They also said that *“when a child is hungry he cries for the mother and not the father and so when the child is happy, the mother is also happy”*. Respondents shared that when women are able to earn their own money, their self-esteem improves and they are happier because the income enables them to contribute to family welfare and improves their dignity.

The NCA research showed that low income in situations of extreme need is the main reason for mothers only taking a short rest after birth and returning to work quickly, to avoid gaps in the family income. Likewise, the fact that mothers are in charge of all domestic activities such as cooking, firewood and water collection and washing, alongside casual labour, seems to compromise the care

of their children. Mothers have to wake up very early in the morning to ensure that household chores are done before they search for casual labour opportunities. All FGDs and KIs indicated that caregivers engage themselves in efforts to support their families through casual labour.

Fathers who work generally contribute to the family welfare by buying food and other items. When research participants were asked about the roles of the father, they said that it was to buy food such as milk and meat. However, many fathers from the IDP camps have no jobs due to lack of job opportunities. Even when they work, the income is not adequate and so the wife too has to work to supplement the income. This impacted heavily on the well-being of mothers, children and fathers, the latter also at times have negative views of themselves as unable to provide. Some tasks such as fetching water, cleaning the house, washing clothes and fetching firewood are gender specific and carried out mainly by women.

As mentioned above, early marriage is another issue linked to poor childcare practices. *"Our girls marry early at about 15 years once they get circumcised"* (a father, Qaxoti Cusub). Many such marriages are riddled with conflict as the girls are not physically, psychologically or socially prepared for marriage. The study established that after one to two years, these young girls often get divorced. In addition, when the divorced mother has more than one child, it becomes more difficult for her to care for her children appropriately as she has nobody to assist her because divorced women are generally shunned by their own families and the community. A young divorced woman with one child informed the research team that she was in hiding in Dollow because her father was looking for her to kill her, for running away from her husband. *"My father wanted to kill me, because I separated from my husband. I had to run away to this camp, to save my life and my child"* (a mother, Qaxoti Cusub).

The NCA study established that there are many single young mothers in the IDP camps. Some have more than one child and single parenthood results mainly from pre-mature marriage and assisted divorce. Because of the lack of means to take appropriate care of children in such situations they easily get malnourished. Some mothers who leave their children unattended to search for casual work, but in the process the children become malnourished. *"Most mothers are divorced in this camp and once parents get separated children easily get malnourished"* (a mother). It is clear that the factors which force such young girls into marriage play a significant role in fuelling malnutrition, as well as a host of other physical, psychological and social challenges highly detrimental to the health of the girls themselves and of their children. Social networks can be a pathway to economic assistance, knowledge transfer and behaviour change, the above challenges. Further research is needed into the above challenges and feasible ways of dealing with them constructively, in such needy contexts.

Poor childcare practices

The study revealed that like elsewhere, primary caregivers

of young children in Dollow are generally mothers. Poor nutrition practice starts from birth with infants not being appropriately breastfed. It was established that mothers never breastfed their infants in the first hours after birth, they start after about 24 hours. During the first 24 hours of their babies' lives, mothers typically give sugary water, honey mixed with water and/or a small quantity of cow, goat or camel milk. This continues for at most the first three days of life. The main reasons given by the respondents for not putting new-borns on the breast were that they did not have breastmilk at that moment and that they needed time to rest after a long and exhausting delivery.

"A new-born baby is put to the breast after one day of birth because the mother has no milk. During that period the baby is given sugary water, honey mixed with water or milk from a cow, sheep, goat or camel" (a mother, Qaxoti Cusub camp). This serious misconception means that infants miss the colostrum that contains antibodies and nutrients important for new-borns' health and critical to a strong start in life.

Inappropriate breastfeeding practices

Young mothers in Dollow commonly referred to not having enough breastmilk to feed their infants properly. However, factors such as inadequate knowledge, being too tired from heavy workload and not having the right support, or appreciation of the critical importance of exclusive breastfeeding, are issues that need urgently to be tackled if breastfeeding practices are to improve. The range of factors which affect typical breastfeeding patterns need careful consideration.

The study also found that infants are not regularly breastfed on demand because their mothers have heavy workloads or are away seeking work. These findings were confirmed in all FGDs conducted in the four IDP camp sections in Dollow District. Mothers typically get involved in casual labour with a negative impact on appropriate feeding practices. *"Improper feeding of children is common if the mothers are away from the child for some time"* (mother with malnourished children).

The study findings show that after birth most mothers become pregnant again very soon and before they are able to appropriately care for the children they already have. Once the mothers become pregnant again they stop breastfeeding, no matter how old their baby is. This greatly affects the nutritional status of these babies and fuels vulnerability acute malnutrition.

Inadequate complementary feeding practices

The study found that introducing complementary foods to children starts much earlier than recommended; before babies reach 6 months. Infants are given sugary water, honey mixed with water and milk, from very early in life. According to this research the introduction of additional foods very early is largely necessitated by the absence of mothers from home. Respondents indicated that the food they receive as aid from WFP and others is not

consequently enough. The Plumpy'Nut given to acutely malnourished children in the camps is shared among family members. Often the malnourished child does not consume enough and acute malnutrition persists..

The research highlighted in all villages studied that the complementary foods fed to children are not balanced. Most of the household depends on grain and cereal, particularly maize, millet, rice, spaghetti and sorghum. Few people eat meat, milk, beans or vegetables. The main pathways to poor dietary diversity identified were the high cost of food, unavailability of foods to the IDPs, scarcity of food, during the dry seasons and dominant socio-cultural practices which do not help, such as giving new-borns water mixed with honey or sugar. *"IDPs don't take a variety of foods but eat only grains like millet and sorghum"* (a father). This was echoed by all other FGDs and KIIs, for the reason that the above carbohydrates are the only food the IDPs can afford.

The study noted the strong links between food consumption and cultural practices. For example, pregnant women are not allowed to eat liver, kidneys or green vegetables because of fears that their baby in the womb will grow large and this will increase difficulties during child birth. This denies the mother nutrients such as iron from liver and kidneys and vitamin C, calcium, potassium and minerals from leafy green vegetables, which are critical for her own health and that of the growing baby.

Poor health seeking behaviour

Poor health seeking behaviour is one of the main underlying causes of disease, which in turn affects child nutrition. The role of some socio-cultural beliefs in delaying health-seeking behaviour is highlighted in the quote below.

"When a child is ill the Quran is read for him/her. We treat the child with herbal medicine (xarmali tree) and salt as well. Sometimes if the sickness is prolonged, we slaughter a goat and we shower the child with blood of the goat and cover the child with the skin of the slaughtered goat" (FGD with mothers of malnourished children, Qaxoti Degan).

The study found out that the number of caregivers who visit a health facility when their children fall sick are very few. The reasons given for not going to health facilities include:

- The distance, especially for IDPs from Qansalay camp
- Long queues at health facilities
- Lack of drugs
- Lack of sufficient health staff at the facility
- The unfriendly attitude of health staff
- Fear
- Some dominant socio-cultural practices.

Instead, most families consult herbalists, conduct particular rituals and read the Quran when their children are sick. They visit the health facility only when they realise that the child is worsening. Other reasons for not visiting health facilities include issues related to gender and to the attitudes of health personnel. *"Traditional Somali girls*

mostly fear male doctors and these hospitals are mostly operated by male doctors" (a father).

"Because of ignorance, pregnant women don't have knowledge about the importance of getting medicines in the hospitals. The hospital is far from the IDPs. Additionally, pregnant mothers always go to hospital and receive no treatment. Pregnant mothers now believe in Traditional Birth Attendants (TBAs)" (an older mother, Qaxoti Cusub).

The study reflected that immunisation is generally well taken up by the IDP communities as they consider it a good way to protect their children's health. Despite the fact that the immunisation rate is high at about 88%, it still remains well below the recommended 95% coverage. Over 60% of caregivers took their children to the health facility or to a mobile clinic for immunisations from polio, measles, whooping cough, vitamin A supplementation and weight measurements. The study recommends further research into nutritional differences between children immunised and those not immunised. As well, those providing immunisation services could be trained and supported to provide more nutrition prevention and treatment where feasible. They could also refer malnourished children to nutrition centres, FSL and other programmes as appropriate.

The study showed that mothers do not typically consult anyone during the early stages of their pregnancies because of fear and shyness. However, at the later stages (four months and above), they often consult their mothers or a local herbalist but rarely go to an Antenatal Clinic (ANC) or consult health professionals. Most women explained that no consultations were required during their pregnancy as they were not feeling sick, which demonstrates a frightening lack of awareness on the importance of antenatal care.

Respondents also complained of many difficulties accessing healthcare when they did visit a health facility, including the lack of necessary equipment, absence of drugs, long queues and lack of enough qualified personnel. *"The queue is usually very long so the malnourished pregnant woman will not be able to wait"* (an older mother). *"There are no qualified doctors to give us the right medicines"* (another mother with a malnourished child).

2.5.6 Dominant socio-cultural beliefs

Some dominant cultural beliefs regarding health habits and breastfeeding practices appear to strongly impact on the nutritional status of pregnant mothers, infants and children amongst Dollow IDPs.

The study findings revealed that the majority of caregivers first consult traditional healers in the case of illness of a family member. The study revealed that when a child is sick from diarrhoea, some teeth are normally removed by a traditional healer; what they call *ikow*. They also perform *Sanshub* which involves pouring gee into the nose of the child. When the child is sick they tie a root (called *tiiro*/

erjeeq) on the neck of the baby to try to cure the child.

FGM is another dominant socio-cultural practise which affects the nutritional status of girls. It is usually carried out when the child is between 5 and 12 years old. As well as the extreme pain, physical and psychological scars, FGM causes excessive bleeding commonly leading to anaemia. It also means that pregnant girls eat less to try to avoid having a large baby and a more painful childbirth. Mothers interviewed linked FGM to malnutrition. *“FGM is one of the biggest problems in this community which also contributes to malnutrition... Most women, especially those giving birth for the first time, suffer greatly from not eating properly. They fear another round of pain of giving birth to a large baby but they have no choice”* (a female researcher during a debriefing session).

Non-spacing of childbirths is another dominant practice because women in these communities are typically not allowed to use contraceptives. Those interviewed referred to religion saying that *“Allah said you multiply”*.

Other socio-cultural beliefs mentioned which affect nutrition include:

“Honey is not given to pregnant mothers because during the last months it will lead to miscarriage of the infants” (mother with malnourished child).

“On the other hand it is normal for us to give honey to the infant in order that the baby becomes a wise person in the community” (a father, Kabasa camp).

“Babies under one year of age are not given cattle milk because worms will grow in the stomach of the babies and this will result in diarrhoea and wounds on the skin of the babies” (a father, Qaxoti Cusub camp).

“It is taboo to give heart and liver to children because if their great grandfather was a twin, they will not talk” (older mother).

“We don’t allow our girls to drink milk and milk tea because this increases the amount of urine, the girls will urinate at night time so it becomes shameful that your daughter is urinating after marriage” (mother with malnourished child).

There is a clear need to raise awareness of key factors that promote, and those that work against, well-nourished infants, children and families. Harmful socio-cultural beliefs and practices need to be considered appropriately and alternatives promoted, as feasible and over time.

2.5.7 Weak Environmental Health

An unhealthy environment due to poor sanitation is well known to negatively impact on the nutritional status of children and communities. Exposure to pathogens fuels diarrhoeal diseases and cholera. If faeces are not properly disposed of and by the use of appropriate sanitation facilities, they can contaminate water, food and insects, which in turn contaminate food and water. Almost all research respondents complained of poor hygiene in the IDP camps. This was reinforced by the observations

of research teams who were astonished at the shocking state of the IDPs’ living conditions.

“Families don’t have toilets and clean water to drink, they drink the dirty water from the river” (mothers with malnourished children, Qaxoti Cusub).

“Lack of toilets and dustbins contribute to outbreaks of disease in our camp” (a mother, Kabasa IDP camp).

“The poor hygiene among IDPs has been made worse by the high numbers of people who keep coming to the camp” (a father, Qaxoti Cusub).

“New influxes increase the population and result in new diseases” (mothers, Qaxoti Degan).

The study revealed that open defecation is a norm in the IDP camps. Disposal of children’s faeces is done in open areas and in front of houses, making children vulnerable to other infections and fuel malnutrition. *“Children at this age eat rubbish if not well controlled by their parents so they mostly suffer worms that can lead to diarrhoea and vomiting and lastly malnutrition”* (a mother, Qaxoti Degan).

It was established that hand washing is usually done after visiting the toilet, when eating food, after cleaning the baby and before worshiping. However, use of soap is minimal among IDPs, but they do use ash and soil to wash their. This is a positive sign of hygiene awareness which could be built on.

2.5.8 Limited Humanitarian Assistance

IDPs in Dollow depend mainly on humanitarian food assistance from international and local organizations working in partnership. The NCA study found that some families don’t receive enough assistance for different reasons. Respondents often blamed corruption when registering beneficiaries, and nepotism which involves the favouritism of distributor relatives and friends.

“The ration of foods that we get as assistance is not enough for us. Corruption goes on in the NGOs that give aid, resulting in poor selection and favouritism by registering their relatives only... People in the camp are jobless and most of the families in the camp don’t work and have no income to pay for food and water” (FGD with mothers of malnourished children, Qaxoti Degan camp).

“Humanitarian agencies are not demanding to know our needs; they don’t ask us our basic needs in a way to improve the nutritional status of the IDPs” (a father). As much as people say they reported this to those in-charge, they voiced that they felt nothing had been done to change the situation. Another said *“there is lack of monitoring on how we are given food”* (a mother, Dexoti Degan).

Most FGD respondents raised similar issues about how they are not benefiting sufficiently from humanitarian support.

“Funding from the humanitarian agencies is not distributed well to the IDPs, they receive very little funding from humanitarian agencies and the rest remains in the hands

of the local NGOs’.

Many mothers highlighted that “NGOs don’t provide enough to us”.

“Local NGOs themselves contribute to malnutrition because they have self-interest and keep 95% of the funding for their own benefit” (a mother).

The above claims raise serious concerns and warrant further investigation. As well, it was noted that many organizations take a long time to respond to the needs of the people. *“There are gaps in humanitarian assistance whereby distributions of food by the agencies take a lot of time. When there are a high number of malnourished children they end up not covering the challenges of this camp” (a father).*

Although all of these issues are extremely sensitive, further research is recommended to establish the degree of truth of such claims and perceptions, especially in relation to ensuring that those most in need are prioritized.

2.5.9 High Rates of Childhood Disease and illnesses (children under five)

Infection can lead to loss of appetite, increased nutrient requirements and/or decreased absorption of nutrients consumed. This can lead to acute malnutrition and reduced resistance to infection. Children and pregnant mothers are most vulnerable to malaria and diarrhoea, which are commonly reported in Dollow IDP camps. Malaria leads to loss of appetite in infants, children and caregivers. At the same time, when caregivers become sick, they are unable to care for their infants and children effectively (i.e. breastfeeding, looking for and preparing food), all of which can fuel acute malnutrition.

Ongoing Influx of IDPs

All FGD and KII informants in Dollow IDP camps revealed that the continuous influx of new IDPs results in increased competition for limited (and diminishing) resources in the camps. These include food assistance, living space and WASH facilities. For example, in September 2015 UNCHR reported 358 new IDP arrivals in Gedo, most of whom find their way to Dollow IDP camps. These growing numbers affect levels of hygiene and repeated outbreaks of disease which consequently become commonplace in the IDP camps.



3. Discussion and Conclusions

It was clear from the NCA study that several key factors combine to fuel or cause acute malnutrition among IDPs in Dollow. The FSNAU has recently (2015) identified Dollow IDP camps as one of the three IDP populations in South and Central Somalia with alarming and sustained Critical levels of acute malnutrition.

The historical timeline (Table 3 above) shows events that have greatly impacted on the nutrition of IDPs. For example, between 2012 and 2015 drought and internal wars led to on-going displacement, inadequate food supplies and repeated outbreaks of disease, all of which have a major impact on the communities studied. Heavy rains fuel outbreaks of diseases like cholera, they destroy shelters and reduce production levels, thereby increasing rates of malnutrition.

The Dollow NCA study established seasonality as a key factor which continues to impact on IDP nutritional status. Worsening levels of acute malnutrition were reflected in peaks in admissions to nutrition centres from March to May 2015, as well as during the months of November and December 2014. Seasonality affects harvests, milk availability, the social environment and population movements. Food market prices were high between April to June 2015 and November and December 2014 and purchasing power low at this time. However, incidences of diarrhoea and malaria were also highest during these months (See Table 4 above).

The study has confirmed that a key factor contributing to high rates of acute malnutrition remains poor household food security, characterized by inadequate access to food and poor food availability. The study findings concur with the REACH study (2013) which found food access to pose a major challenge to many IDP households. The same study documents the lack of food purchasing power, loss of agricultural assets and lack of cooking utensils commonly experienced by Dollow IDPs.

Limited basic nutrition knowledge and basic education are other key factors which the NCA has confirmed. The 2013 REACH study found that although education is considered a priority by Dollow IDPs, over 60% of households with school-age children are still unable to access education. This remains a cause for major concern, given the positive impact that education and literacy can have on household and community health and nutrition.

Findings from the NCA have also confirmed the impact of suboptimal IYCF and care practices on the health and nutrition of Dollow IDP communities. This is influenced

by a range of factors including the poor psycho-social situation of many mothers, weak childcare practices, inappropriate breastfeeding, poor complementary feeding and poor health seeking behaviour among other factors. As elsewhere, the poor psycho-social situation of many mothers directly impacts on their ability to breastfeed and care appropriately for their infants and young children. This highlights the need to research initiatives that would help women to feel stronger and more empowered, to enable them to care for their children appropriately.

Poor health seeking behaviour also affects IYCF and care practices. Most mothers never go to a health facility citing among other reasons the long queues experienced, time taken to reach the nearest facility, the frequent lack of health staff, poor attitude of staff and the lack of drugs. This is one reason why IDPs continue to use traditional healers and religious leaders prior to approaching health services.

Complementary feeding practices also fuel poor nutritional status amongst infants and children. It is common practice to give infants honey, sugar and water before putting them on their mother's breast for the first time. Infants are typically introduced to other food (largely carbohydrates) well before they reach 6 months of age. The mothers argued that they lack knowledge about nutrition and lack food to give their infants and children a balanced diet.

Caregivers' heavy workloads contribute to acute malnutrition in IDP communities. Mothers are forced to leave their babies and children to search for work and earn a meagre income. Casual labour may include collecting firewood for sale, washing clothes in other homes, fetching water and washing cars, to secure some family income.

Some socio-cultural beliefs and practices also contribute to acute malnutrition among IDPs. Some IDPs believe the source of disease is strong winds which cause malaria, diarrhoea and dysentery, among other illnesses. Others believe that disease is caused by a particular bird passing over the child when asleep. Other beliefs and practices relate to food taboos and feeding practices, as documented.

Poor WASH facilities also influence malnutrition among the IDPs in Dollow. The study showed that the influx of IDPs to the camps continues to strain minimal WASH facilities. The need to raise WASH facilities to acceptable levels remains urgent as the REACH (2013) study also

confirmed.

Another key factor mentioned by the IDPs is limited humanitarian assistance. IDPs acknowledged the presence of some humanitarian assistance in terms of food, shelter and health. However, they felt that assistance remains highly inadequate and made allegations of regular corruption in the distribution of aid. The study illustrated that as a result of these issues many IDPs have lost confidence in local NGOs. Some respondents went so far as to accuse these organisations of contributing to acute malnutrition through their actions. This issue requires further research to assess the truth of the allegations.

Other factors mentioned by IDPs as greatly contributing to acute malnutrition include drought and floods.

Key Recommendations

1. Poor household food security. This is characterized by inadequate access to food which results largely from a lack of income and inadequate access to humanitarian assistance.
2. Poor birth spacing with most households typically having a baby each year, following early childbearing (most girls become first time mothers at 15 years old). This generally reduces the quality of care given to infants and children with young mothers not well placed to care for many young children within a short time frame.
3. Suboptimal IYCF and child care practices. Local examples shared include giving new-borns honey and water within 1 hour of birth, the premature introduction of complementary food primarily due to mothers' heavy workloads.
4. Environmental hygiene. The cleanliness of the camps and especially of the latrines in the IDP settlements remains a major concern.
5. Caregivers' heavy workloads with many mothers in these communities typically engaged in casual labour for the whole day and left unable to care adequately for their children. This includes meal preparation, hygiene and leaving infants and young children in the care of their young age siblings.
6. Some dominant socio-cultural beliefs and practices. These include feeding children from one breast only, not giving young children cow's milk which is believed to cause worms. The majority of caregivers first consult traditional healers in case of illness. Pregnant mothers eat restricted diets (not animal proteins) in an attempt to avoid giving birth to large babies, for fear of painful child birth particularly FGM.
7. High rates of childhood diseases such as diarrhoea in children under five resulting from poor environmental hygiene and weak IYCF practices. Seasonal malaria is common during the rainy season.
8. An ongoing of Influx of IDPs, which continues to increase competition for available, generally diminishing resources.
9. Perceptions of minimal access to humanitarian assistance including inadequate family rations and common claims of nepotism and the regular favouritism of particular groups.

Recommendations from the NCA study are outlined below.



4. Recommendations

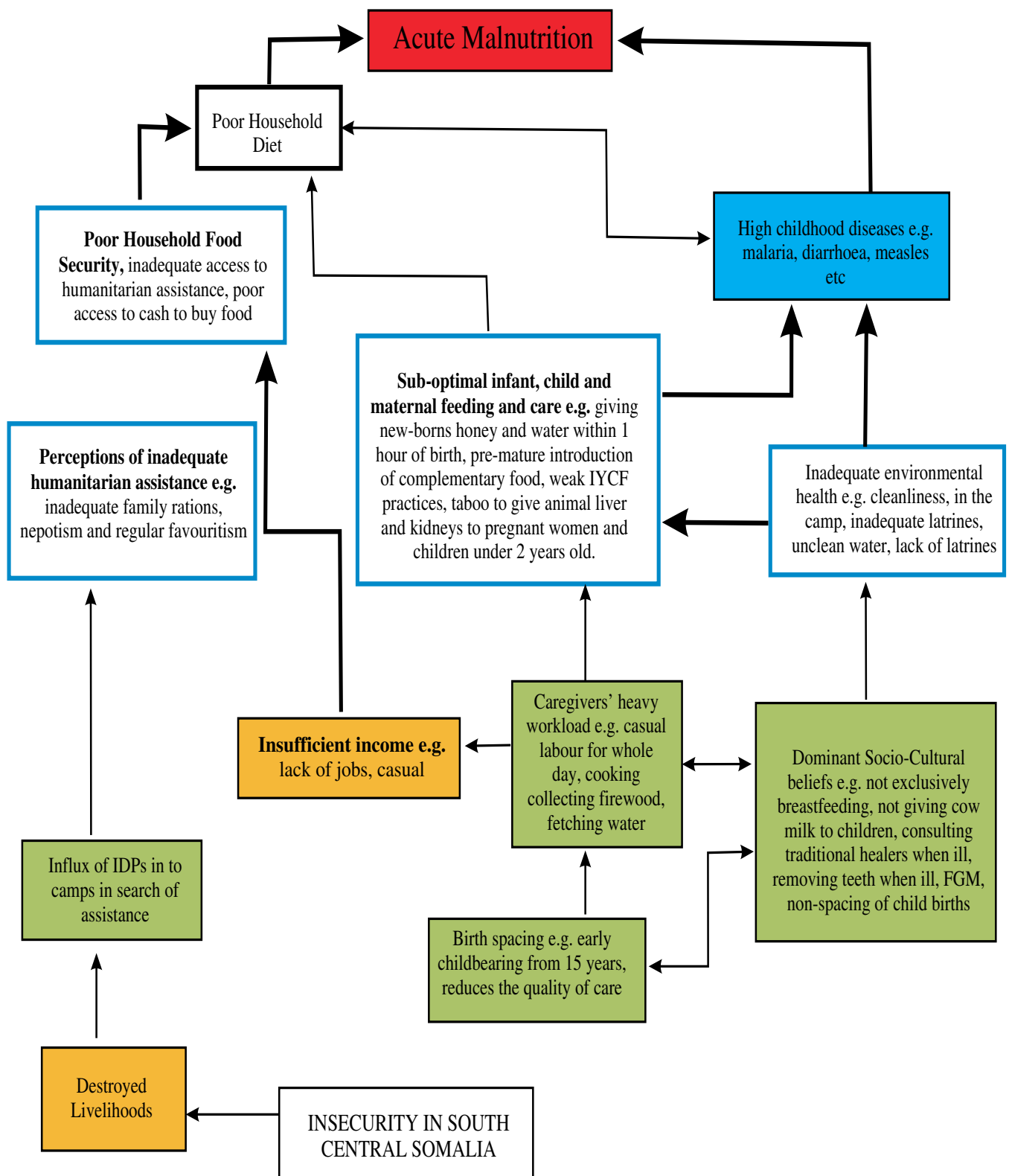
Key Recommendations

1. Address environmental health to ensure access to clean toilets and safe drinking water for all IDPs.
2. Explore opportunities to introduce day care centres for children when mothers have to leave their children to seek casual labour. This could include expanding existing madrasa facilities (which most children attend) to include day care for infants and younger children.
3. Ensure the integration of basic health (including MCH) and nutrition services among the IDPs. Integrate nutrition services with protection rations and ensure equity in distribution, to avoid the inappropriate sharing of RUTF within and between families.
4. Engage religious and community leaders, teachers, CHWs and other influential community members in nutrition promotion efforts, IYCF in particular.
5. Explore opportunities to stimulate IGAs, especially amongst the most vulnerable community members.
6. Monitor rigorously and ensure that the most vulnerable IDP families have access to the necessary humanitarian assistance.
7. Implement short term and long term behavioural and social change programmes to tackle the multiple factors that mitigate against optimal IYCF.

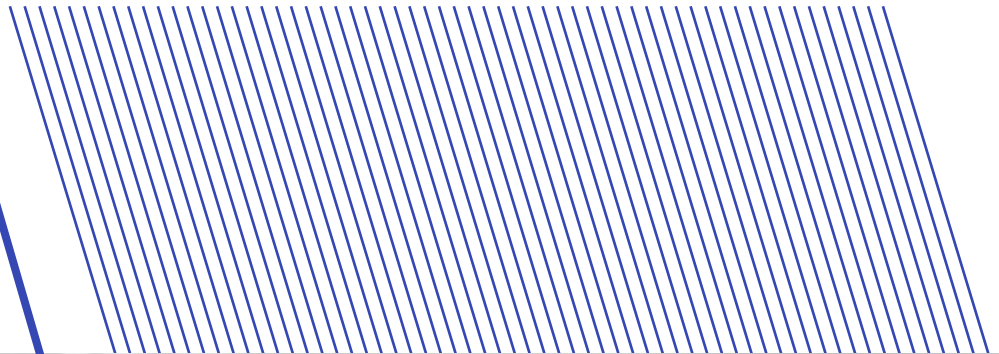
Recommendations for Further Research

1. Look into the extent to which humanitarian assistance provided to IDPs actually reaches intended beneficiaries and the most vulnerable, factors that influence who exactly receives which assistance in situ.
2. Comprehensively map current services provision (all sectors) to IDPs and their accessibility to identify critical gaps. Use this to advocate for the provision of basic services across sectors.
3. Conduct a study to explore the links between single parenthood and acute malnutrition in IDP communities (young mothers).
4. Establish whether IDPs are being pushed off their original land and out of their homes by land grabbers. Document the factors influencing this.
5. Investigate why many women and men appear not to seek health services and the multiple factors which influence this.
6. Conduct research into the availability of formal education facilities and factors that affect the enrolment, retention and transition rates for girls and boys.

5. Causal Pathway - Dollow IDP Communities



NCA Study among Dollow Pastoral Communities

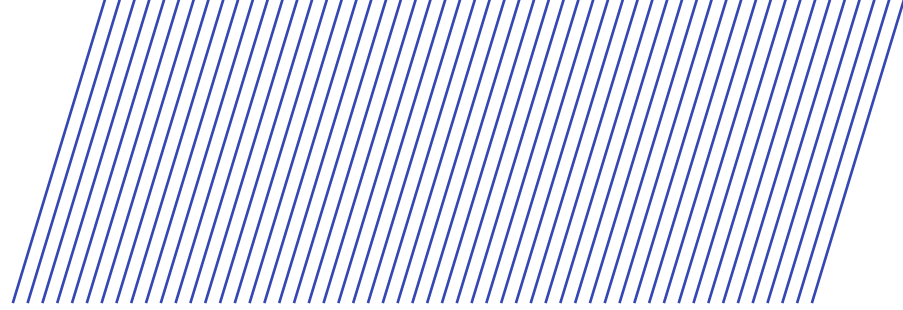


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Executive Summary

A Nutritional Causal Analysis (NCA) study was conducted amongst Dollow pastoralists to determine the key factors contributing to acute malnutrition levels which have long remained at Critical levels in the area. The pastoralist communities studied are found within 15km of Dollow town and are more “settled” than many nomadic pastoralists. However they still move on once water and pasture run out. The key findings are highlighted in this report and key recommendations made.

It has been argued that pastoralists are generally less vulnerable to food insecurity due to a combination of political and natural circumstances which include their political and military strength and the mobility of their livestock based assets. However, in the Somalia context the lives of pastoralists have been affected by many factors including:

- Recurrent drought
- Restricted grazing mobility due to insecurity
- Conflict-induced asset depletion
- Increasing commercial and communal debt
- Poor terms of trade in some areas due to distance from markets, border closures and trade disruptions (livestock import/export bans)
- An unregulated trade system which provides limited return to producers
- High rates of expenditure on social services and production inputs such as livestock drugs and treatment
- A poor livestock healthcare system with an unregulated drug market
- Population expansion (Andre, 2002)

In the local context, pastoralist communities in Dollow have considerable potential to improve their nutritional status as they already have livestock resources such as cows, goats, camels and donkeys to use to improve their nutritional status.

The NCA study established various factors which contribute to high levels of acute malnutrition among pastoralist communities which as outlined below.

Key findings

1. Poor household food security as a result of drought, lack of income, distance to markets and lack of water and prolonged insecurity. As well as impacting on household assets and food consumption, pastoral communities also have few animals to sell, in order to supplement their own livestock products.
2. Lack of basic knowledge about nutrition, especially on the importance of a balanced diet, hinders strong nutrition.
3. Suboptimal IYCF and care practices.
 - Inappropriate breastfeeding practice including the late initiation of breastfeeding and not practicing exclusive breastfeeding.
 - Inadequate complementary feeding practices, including the premature introduction of complementary foods and poorly balanced diets, which generally consist of sorghum and rice. In the communities studied it was found that within 15 kilometres of Dollow town family livestock is increasingly sold to raise cash for food purchases. This might be leading to a deterioration in diet, with milk and meat consumed less than in the past. Further research is needed into this phenomenon, and the factors driving it and ways of mitigating its negative impact.
 - Poor health seeking behaviour. General practice is to first consult religious leaders and herbalists. Interviewees claim they cannot access even basic formal health facilities.
 - Inappropriate care for children under five. Many mothers seek casual labour, walk to collect water and firewood and look after livestock, often leaving infants and young children in the care of their siblings.
4. High levels of early marriage, often from 15 years old, and forced marriages, which fuel a vicious cycle of premature pregnancies and high divorce rates. The ease and increasing regularity

with which divorce happens, especially when young girls are forced to marry, was noted by respondents.

5. Women headed households are on the increase, especially as divorce becomes more common.
6. Lack of antenatal care services for pregnant women.
7. Limited child spacing which works against optimal IYCF.
8. Some dominant socio-cultural beliefs and norms, including children not being given liver, boys not being given kidney due to fear of becoming a coward and boys not given sour milk due to local beliefs of it causing male infertility, can impact on nutrition.
9. FGM fuels anaemia and leads to poor eating practices during pregnancy to prevent large babies and ruptures during childbirth. It intensifies the fear of bearing a large baby, which negatively impacts on the diet of pregnant women (often young girls).
10. Poor environmental health conditions, in particular poor access to both water and clean water, poor sanitation and the lack of latrines. The pastoral communities studied are more settled than nomadic, making this issue more pertinent.
11. Limited humanitarian assistance. Respondents shared their experience of not receiving food assistance for many years.
12. Limited access to services for the effective treatment of acute malnutrition
13. Low levels of formal education - no caregivers interviewed had attended formal schooling. Children mostly attend madrasas, which creates openings for nutrition promotion.

Key Recommendations

1. Strengthen awareness and empower caregivers and other community members with health, nutrition and other necessary knowledge, including on:
 - Use of their livestock products to improve their nutritional status

- Optimal breastfeeding
 - Complementary feeding
 - The importance of appropriate health seeking behaviour
 - The importance of proper sanitation and hygiene practices
 - Knowledge about balanced diet
2. Develop and support long term social and behavioural change communication programmes linked to all the above.
 3. Improve nutrition, health and WASH knowledge and awareness amongst pastoralist leaders, Community Health Workers (CHWs), Traditional Birth Attendants (TBAs) and others as feasible. Strengthen referral systems to accessible health and nutrition services (where they exist).
 4. Improve the capacity of Community Animal Health Workers (CAHWS) on livestock management. Ensure their accessibility, in particular to vulnerable community members.
 5. Concerted effort needs to be made to provide quality basic health and nutrition services and to encourage their use by ensuring they are accessible to vulnerable community members.
 6. Opportunities to educate boys and girls on nutrition through schools (including Quranic schools) and School Health Clubs should be further explored.
 7. Improve the health and security of pastoralists' livestock.
 8. Provide mobile health, nutrition and livestock programmes to service the scattered settled pastoralist communities. In particular:
 - Introduce mobile services along migratory routes, or construct health posts along long term migratory routes.
 - Develop and support teams of mobile health and nutrition workers to service these scattered communities.
 9. Establish mobile schools and educational programmes that are accessible to the communities studied.
 10. Strengthen community resilience to drought by supporting collective action to reduce and mitigate the effects of drought, and establish appropriate drought recovery mechanisms.

Context

1.1 Background

Gedo Region is situated in south west Somalia, bordering both Ethiopia and Kenya. The region consists of six districts including Bula Hawo, Bardera, Dollow, El Wak, Garbaharrey (the regional capital) and Luq. About 75% of the population is classified as pastoralist. The remainder is comprised of urban dwellers, agro-pastoralists and riverine agriculturalists along the Juba and Dawa rivers.

According to FSNAU's livelihood classification, the pastoral population in Dollow district was previously classified as Dawo pastoralists (FSNAU 2004). However, revised classification by FSNAU and FEWSNET classifies pastoralists in Dollow district as southern inland pastoralists (FSNAU/FEWSNET 2015). The main livelihood activity for these pastoralists is keeping camels, sheep, goats and cattle. Available reports show that Dollow's pastoral population has been assessed either as part of Gedo pastoral communities in 2010 and 2011, or as part of north Gedo pastoral communities from 2012 to 2015. These are the survey's results considered to represent Dollow pastoralists reviewed here.

1.2 Introduction to the community studied

The pastoralists studied migrate between areas that share the same clan identity in search of grazing and water resources for their livestock (Care Somalia, undated).

1.3 Nutrition Status

Dollow pastoralists are one of the population groups in southern Somalia that have persistently recorded high levels of acute malnutrition in the last five years. Out of the 11 nutrition surveys conducted between 2010 and 2015 covering Dollow pastoralists, two recorded Very Critical levels of acute malnutrition with a Global Acute Malnutrition (GAM) prevalence of $\geq 30\%$, eight had a GAM level of 15-29.9% considered as Critical and only the November 2013 survey recorded a Serious GAM prevalence of 12.1%. The highest (51.9%) levels of GAM and Severe Acute Malnutrition (SAM) prevalence of 19.3% were recorded in 2011 during the famine in southern Somalia (see Figure 1). Overall, reports

Figure 1: Trend of GAM and SAM Prevalence in 2010 - 2015

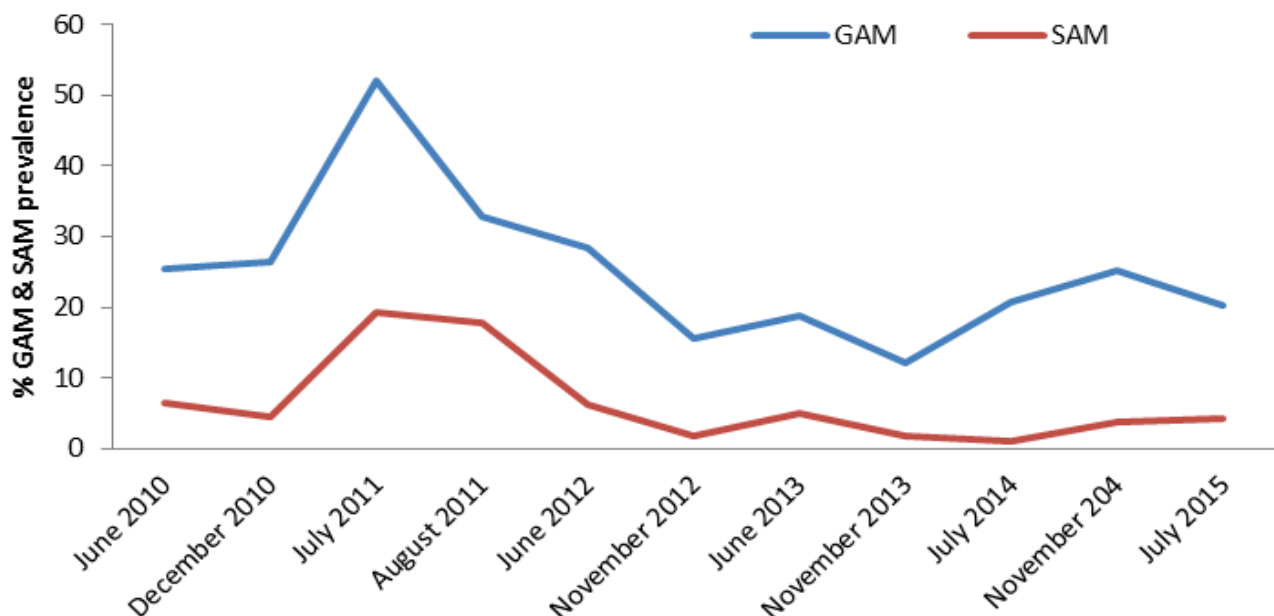


Figure 2: Trend of Camel Prices in Dollow 2010 - 2015

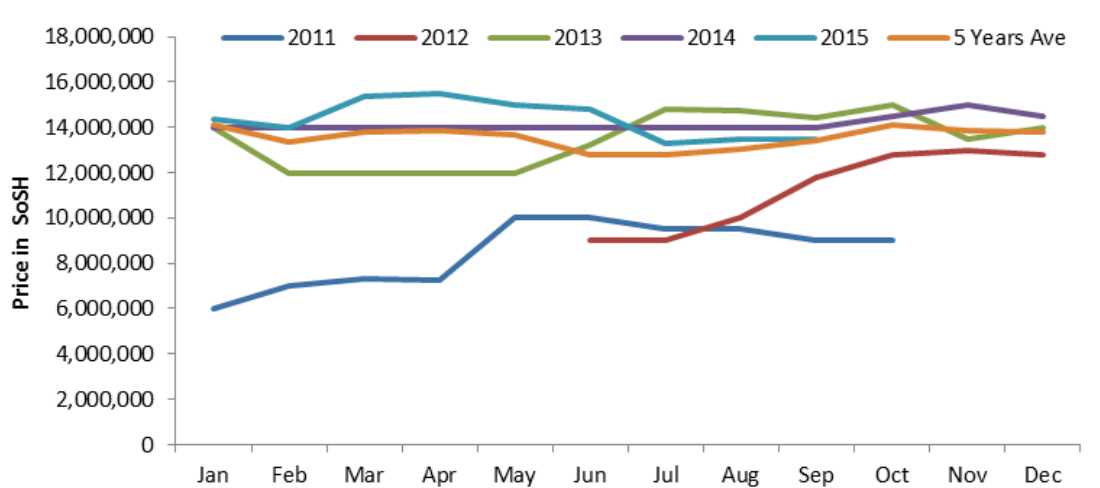
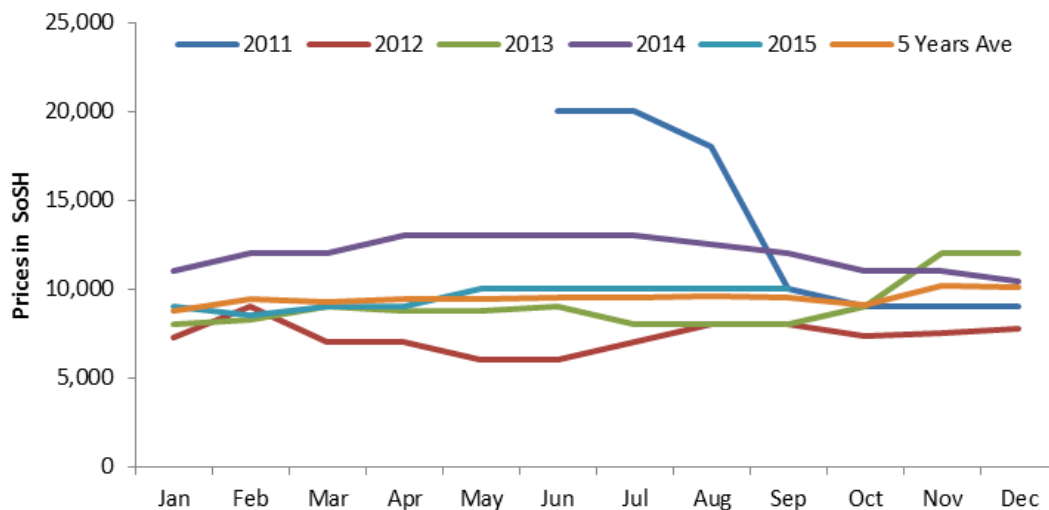


Figure 3: Trend of Prices of 1kg of Red Sorghum in Dollow 2010 - 2015



2011 & Gu 2011). Figure 3 below shows the trend in price of a 1kg of red sorghum, the main staple cereal, in Dollow markets for the last five years (FSNAU market data, November 2015).

On the other hand, improvement and generally stable food security has directly been linked to the cumulative positive impact of favourable seasonal rain performances recorded since Deyr 2011, as well as sustained humanitarian assistance in the district. Specifically, good rainfall has enhanced rangeland resources, improved livestock body conditions and production as well as led to an increase in the number of sellable animals and a reduction in frequency and duration of livestock out-migration (FSNAU Deyr 2011, Gu 2012 & Deyr 2014). All aforementioned factors have reinforced household purchasing power because the pastoral population has better access to income from increased livestock prices and sale of livestock products. Positive rainfall patterns have also contributed to bumper harvests from agro-pastoral and riverine communities in Gedo region as well

as from neighbouring agro-pastoralists in Bay and Bakool regions that have mitigated increases in cereal prices, making staple food more accessible to pastoral communities (FSNAU Deyr 2014a).

Despite the relative improvement in food security since 2011, reports show the persistence of very high levels of acute malnutrition over the years. This has been linked to both periodic short term interruption of food access and seasonal outbreaks of Acute Watery Diarrhoea (AWD), cholera, malaria, measles and whooping cough (FSNAU Gu 2012, Gu 2013, Deyr 2014). In addition, chronic factors that include poor dietary diversity, suboptimal child care and feeding practices, and limited access to basic human services such as safe water, health and sanitation facilities have all been linked to severe levels of acute malnutrition (FSNAU Gu 2013a&b, Deyr 2014a&b). It should however be pointed out that food security has and continues to play an important role in mitigating the elevation of acute malnutrition. Food security has particularly been associated with improvements recorded in different seasons in the last five years and, with preventing further deterioration beyond 30% levels (FSNAU Deyr 2011a, Gu 2012b).

1.5 Water Sanitation and Hygiene (WASH)

Access to sanitation facilities (latrines) and access to water from safe sources are the only WASH indicators reported in the reviewed reports. Reports showed that up to 80% of the pastoral population in Dollow District does not have access to latrines (FSNAU Gu & Deyr 2010). This exposes the population to incidences of excreta-related diseases. In addition, reports show that the majority of households (>80%) obtain water for domestic use from unprotected sources such as shallow wells and *Berkads*¹ which predispose the population to diarrheal diseases (FSNAU Gu & Deyr 2010). Poor access to safe water and inappropriate disposal of excreta waste partly explain the high prevalence and seasonal outbreak of diarrhoea and cholera reported among the pastoralists. High prevalence of diarrhoea (of up to 28%) has been reported among the pastoral communities in Gedo region in the last five years.

1.6 Humanitarian Assistance

According to the Somalia Health Cluster 3W Matrix 2015, there are various local and international organisations involved in health, nutrition and WASH services in Dollow district that serve both the host and IDP populations. These include health services offered by IOM, WVI and HDC at facility and community levels; Nutrition services including Targeted Supplementary Feeding Programmes (TSFPs) run by HIRDA, Trócaire, CEDA and WVI and with support from UNICEF and WFP; WASH services run by IOM, DRC, COOPI, NAPAD, ASEP, SHRA and WVI. The provision of health, nutrition and WASH services mitigates levels of acute malnutrition. However, access to these services by the pastoralist communities in rural areas is hampered by distance, poor transport infrastructure and the frequent out-migration of the population with their livestock. Trócaire does run health outreach services including immunisations, treatment of minor ailments and referrals to Dollow health centre. However, no nutrition services are operating in the pastoral areas.

1 Underground water reservoirs



2. Findings and Analysis

2.1 Typical Livelihood Characteristics of Communities Studied

The communities studied were between 13 and 15km from Dollow town in pastoral settlements. The NCA research team could not access other Dollow pastoral communities because of high levels of insecurity. The accessed communities were not typical nomadic pastoralists but are relatively settled pastoralists.

There is an active trade in livestock products, mainly milk and goats, on a daily basis between these communities and Manderla (Kenya) traders. This is fuelling a growing trend of these pastoralists selling rather than consuming their milk and other livestock products. Local milk is only given to children under-five. Subsequently NCA findings show that a significant amount of food is purchased. This deviates from the norm among pastoralists which is generally 50-60% (FSNAU, 2015), explains some NCA findings.

The estimated ages of mothers and fathers who participated in the research were between 14 and 45 years. Most mothers seemed to be less than 30 years old. Older mothers were 50 years and above. Regarding levels of education, the study showed that no children in the pastoralist communities were attending primary school. Also findings showed that caregivers from pastoralist communities had never attended school, primary or above. "There are no women who have completed primary level of education in this community". This was repeated in almost all Focus Group Discussions (FGDs) held with mothers, fathers, older mothers and other key informants in the study area.

The communities are pastoralists, who keep livestock, settle temporarily while water and livestock fodder are available and move from one point to another in search of pasture and water in lean periods.² FGDs reported that their main source of food is livestock (Table 1), mainly milk and meat from their animals. "The main sources of food in this community are livestock from which we get meat and milk. We sell animals and milk to get money to buy food from town" (a mother of malnourished children, Karowshidle village).

The study found that the main sources of income in these communities come from selling or exchanging livestock and milk. Some pastoralists also engage in casual labour watching over animals in the fields and a few people own donkey carts which they hire out. Income acquired from the sale of animals, milk and casual labour is generally used to purchase other food and medicine. The kind of foods bought in order of priority, include maize, wheat flour, maize flour, cooking oil, sugar, sorghum, rice and beans, salt and tea leaves (See Table 1). For medicine, these communities mainly seek help from traditional healers or a Sheikh who recite the Quran for the sick. They go to the hospital as the last resort and once all other options have failed, when the patient has deteriorated seriously.

² The types of livestock kept by pastoralists in Dollow were cows, goats, sheep and camels.

Table 1: Sources of food, income and how income is spent among Dollow pastoralists

Sources of food	Percentage (%)	Main Sources of income	Percentage (%)	How income is typically spent	Percentage (%)
Purchase	>50%	Sale of livestock	30-40	Food	50-65
Humanitarian aid	0 – 10	Sale of Milk	40-45	Livestock medicine	10-15
		Casual labour	20-25	Human medicine	10-15
				Clothing	5-10
				Food	Percentage (%)
				Maize	20 - 40
				Wheat flour	15-20
				Maize flour	10-15
				Cooking oil	5-15
				Sugar	5 - 10
				Sorghum	5 - 10
				Rice	5 - 10
				Other - tea leaves, beans, salt etc.	5-10

In terms of wealth distribution, the studies revealed that the majority of Dollow pastoralists are balanced between middle and poor, while very few are considered better off.³

³ Wealth distribution was defined in terms of the number and type of livestock/animals a family owned. Those who were considered “better off” own at least 100 goats, 10 cows, 2 donkeys (and a donkey cart), and 2 camels. Those considered “middle” owned at least 25 to 70 goats and 2 cows, while those considered poor own less than 25 goats and nothing else.

2.2 Historical Timeline of Events

Table 2 :Timeline of Events affecting Nutrition

Year	Month	Event	Impact on nutrition
2011	June	Drought	- Animal death, no production of milk or meat - Low family income resulting in malnutrition
	January	Drought	- Animals died. No meat or milk production - Low income for the family
	August	Severe drought	- Mass death of animals. - Poor animal production. - Very low market prices.
	May	Drought	- Many people died of starvation. - The number of malnourished children becomes very high.
2012	July	Diseases	- May lead to weak physical body condition which means people cannot do their work well.
	March	Diseases	- Diarrhoea, malaria , typhoid
	April	Good rain occurred, with good coverage	- Animals become fat - Good source of milk production - Normal market prices - Better nourished children
	June	Drought	- Animals died from lack of pasture and water - Low farm production
2013	March	Diseases	- Diarrhoea malaria , typhoid,
	June	Drought	- Animal death, no production of milk, meat - Low family income, increasing malnutrition
	October	Irregular rainfall had occurred.	- Livestock body condition weak - Low milk and meat production
	August	Rain	- Animals get enough pasture and water - High farm production
2014	June	Drought	- Animal death so no production of milk or meat - Low income for the family, causing malnutrition
	July	Diseases	- May lead to weak physical body condition resulting in people being unable to work effectively
	April	Normal rain	- Livestock body conditions improve - Increase animal milk production
	September	Disease	- Many people and animals died from diseases
2015	April	Good volume of rain with good coverage	- Animals become fat - Good milk production - Normal market prices

Table 3 : Seasonal Calendar

H=High, M=Medium=Low U= Unknown	Months of the year (January to December)											
	J	F	M	A	M	J	J	A	S	O	N	D
Acute malnutrition												
Prevalence's of acute malnutrition	L	M	L	U	M	M	H	H	H	M	M	M
Peak of admission in nutrition centres	L	L	L	H	H	H	L	L	L	H	H	H
Water resources												
Rainy season	L	L	L	H	H	H	L	L	L	H	H	H
Under ground water availability	U	U	U	U	U	U	U	U	U	M	H	H
Ground water availability	M	M	L	U	L	H	H	U	H	U	H	H
Other sources (borehole, berkads)	M	L	L	L	L	U	L	H	H	H	H	H
Harvests												
Hunger season	H	H	H	L	L	L	M	M	M	L	L	L
Harvest (staple food)	U	U	U	U	U	U	U	U	U	U	U	U
Harvest wild fruits	H	H	H	L	L	L	M	M	M	L	L	L
Harvest vegetables	U	U	U	U	U	U	U	U	U	U	U	U
Milk availability	M	L	U	M	L	L	M	U	L	H	H	H
Other												
Household economy												
Food market prices	M	M	L	H	M	H	H	L	L	M	H	H
Terms of trade(livestock/grain)	M	L	L	M	H	L	L	M	H	H	M	M
Farm employment	L	L	M	H	H	H	L	L	H	H	M	L
Temporary jobs	L	L	L	L	M	M	L	L	M	L	L	L
Movements and family organisation												
Moving to farming villages	L	L	L	H	H	H	M	M	M	H	H	H
Livestock transhumance (seasonal movement of people with their livestock)	H	L	H	L	L	L	L	U	U	L	L	L
Farming labour	L	U	L	L	L	U	H	U	L	H	L	U
Health												
Diarrhoea	H	L	L	H	H	H	M	M	M	H	H	H
Malaria	H	H	H	U	U	U	U	U	U	M	M	H
Acute Respiratory Infections (ARIs)	H	H	L	U	L	L	L	U	H	M	H	H
Social												
Social events	H	H	H	L	L	L	M	M	M	L	L	L
Peak of birth	M	M	L	H	H	H	H	L	L	M	H	H

2.4 Local Definitions and Understandings of Malnutrition

FGDs with community members explored perceptions and understandings of malnutrition. Most respondents related malnutrition to severe hunger and weakness due to insufficient intake of food. They said that a malnourished person or child lacked blood and energy.

Respondents stated various perceived signs and symptoms of malnutrition. They indicated that a malnourished child falls sick most of the time, loses their appetite, is thin, has a swollen body, their hair changes colour and they remain weak. Respondents further pointed out that a child with malnutrition does not sleep well, develops a distended stomach and has oedema and poor feeding practices. Examples of descriptions of a malnourished child were as follows:

“When an infant or a child is malnourished he/she stays awake and cries for a long time” (a mother with malnourished children).

“Malnutrition can be recognized by the weak body” (a mother, Korowshidle village).

Use of such terms and expressions shows some understanding of malnutrition.

2.5 Key Factors Contributing to Acute Malnutrition

Respondents were asked to give their opinion about the key factors contributing to malnutrition among children under five years old in the community. The outcomes of these discussions are detailed below.

2.5.1 Poor Household Food Security

Inadequate access to food - Food access among Dollow pastoralists remains limited. They depend on meat and milk as their staple foods, which generally fluctuate with seasonal and climate changes in the area. The main reasons given for inadequate access to food include lack of money, drought, distance to the market in Dollow town (12-15 km), lack of water and lack of nutritional knowledge.

“Drought in the area has resulted in less milk and meat production” (a father participating in an FGD).

“The kinds of humanitarian support we get during drought are only the provision of sorghum and cooking oil, which are not enough and do not provide us with good nutrition” (a father).

Due to their low income, the pastoralists' purchasing power generally remains very low. “There is no purchasing power since most people are poor and we have few animals that are not enough” (a mother, Karowshidle village).

It was also noted that for those considered middle and better off in terms of wealth distribution, their wealth did not appear to play a significant role in improving their nutritional status. This was because there seemed to be a preference to maintain the herd and not exchange them or even to sell milk in order to buy other foods.

Poor availability of basic foods - The NCA study established that milk and meat, often assumed by outsiders to be abundantly available, are significantly affected by drought, lack of water and animal diseases. Inadequate food availability combined with other factors as below, fuels acute malnutrition.

Livestock management and productivity - The NCA study among Dollow pastoralist communities indicated that livestock management and productivity is inadequate. Once animals get sick, pastoralists generally do not have the medicine to treat them and some die. This affects the production of milk and meat. “Apart from drought which kills our animals, diseases sometimes kill our animals, there is no medicine to give them and so they die” (father, Laanbuuleey village).

Characteristics of households with very low food security

- Those interviewed articulated concerns about food running out before they got the money to buy more, “the little food we get for a day and by the second day it is over” (mother, Gubata). “Families have a low level of income to meet their daily required expenses, so mothers and children are not getting enough milk and meat” (TBA key informant).
- They cannot afford to eat balanced meals, “sometimes getting enough milk for the whole family is problem and especially during the dry season when we are moving”.
- An adult may reduce the size of meals or skip meals because there was not enough money for food. “We take one meal in a day which is of milk alone, if there is something else we eat together” (mother of a malnourished child)
- They eat less than they felt they should because there was not enough money for food.
- They are often hungry but do not eat because they cannot afford enough food.

2.5.2 Lack of Basic Knowledge about Nutrition

Inadequate knowledge was another factor raised in the research. This related to knowledge about the various types of food which make up a good and balanced diet, as well as knowledge about food preparation and the importance of good nutrition. Caregivers didn't understand the importance of appropriate nutrition. “We don't have enough knowledge about how to overcome

this problem of hunger...Our children suffer when we are watching them" (a mother, Karowshidle village).

Low levels of formal education, especially amongst girls, inevitably impacts on malnutrition among the pastoralist communities. The study found that no women from the research communities had gone to formal schools. Even today boys and girls in the pastoralist communities do not go to formal schools. This is because there are no schools in all four communities visited. *"There are no boys and girls aged 13 to 17 years going to primary school, because there are no schools around"* (a mother). However, almost all children, boys and girls, attend Quranic Schools where they are taught Islam and how to recite the Quran. This potentially provides an opportunity to educate boys and girls on nutrition through Quranic schools, this should be explored further. It must be noted that reciting the Quran is considered one of the most important courses of action when an infant, child or adult is sick. A father noted that *"All boys and girls in the community go to Quranic schools"* (a father).

2.5.3 Suboptimal IYCF and Care Practices

Inappropriate breastfeeding practices - The NCA study sought to establish the degree of early initiation of breastfeeding by asking when, after birth, the baby was first put to the breast. This indicator was meant to help understand the first contact between a mother and her child, as well as their attachment.

It is common practice in the communities studied to give infants water mixed with sugar or honey, porridge of very light consistency and goat's milk in the first hour after birth. The majority of caregivers believe that during the first hours following childbirth the mother does not have enough breast milk for the baby and that the infants "need to test the new sweet things on earth". Consequently, most new-borns miss out on colostrum with all its well-known benefits, as well as early bonding with their mothers and exclusive breastfeeding, all important to the child's future health, development and well-being.

In terms of complementary feeding, mothers generally introduce other solid foods from the age of 5 months, although water, honey, sugar and even light porridge have already been introduced far earlier, as outlined above. *"In this community children are not breastfed for the first 2 years, likewise the child does not get exclusive breastfeeding in the first 6 months"* (a father, Karowshidle village). As is common in Somalia, almost all mothers quickly stop breastfeeding after realizing that they are pregnant with another baby, which commonly happens too soon, in the absence of family planning and child spacing. *"When the mother is breastfeeding and yet is pregnant, the child [infant] cannot get enough breastfeeding"* (a mother, Abdilohow village).

Inadequate complementary feeding practices - Exclusive breastfeeding is not practiced in these communities for reasons outlined above. On top of this, complementary feeding remains very weak in the

Dollow pastoralist context of widespread poor diets and eating habits, limited knowledge about the importance of a balanced diet (for young children in particular), poor child care practices and insufficient family income. Early or late introduction of complementary foods fuels malnutrition, hence this a significant issue warranting attention with the communities concerned.

Poor health seeking behaviour - Health seeking behaviour among the pastoralist communities remains very poor. Pastoralists in Dollow do not access health facilities for various reasons including:

1. Distance is a major hindrance to taking children to the health facility, the nearest being 10 to 15 kilometres away in Dollow town. This journey takes a long time on foot, almost no one can afford to pay for transport. "Children aged below 1 year do not visit the health or nutrition facility when they are sick because it takes a long time to reach there. There is no health facility in this village" (a mother with malnourished children, Karowshidle village). Another Mother noted that "infants are not taken to the health centre for vaccination because the health centre is very far and the community doesn't know the importance of vaccines".
2. Lack of transport to the health facility. Pastoralists in general cannot access affordable transport to reach the nearest health facility. The only local means of transport generally available is donkey drawn carts which are slow and uncomfortable and it is believed that they can worsen an individual's health condition on the road.
3. Recitation of Quranic verses for the sick, without other treatment. Pastoralists commonly believe that reciting the Quran whenever an individual or a child becomes sick will aid recovery. This remains a common practice and mitigates against community members seeking timely medical assistance, such that by the time those affected reach a health facility it is often too late.
4. Health problems are often referred first to a traditional healer. Whenever a child becomes sick, they are typically given herbs and/or taken to a traditional healer. This delays timely access to medical facilities.

Inappropriate care for children under five - The NCA study revealed links between poor child care and acute malnutrition. According to research participants, poor psychosocial care practices stem mainly from the caregivers' high workloads and their lack of close interaction with their children. Many mothers are unable to take care of their children for an entire day. Many young children remain under the supervision of older siblings during the day, or they are left alone as their mothers' search for water, take care of animals and complete other duties.

Caregivers' heavy workloads are an important underlying factor in acute childhood malnutrition. Due to limited time and tiredness, mothers are often not able to give their children the attention they deserve. This impacts on child health, psychosocial well-being and

food intake. Discussions highlighted that “*mothers here are expected to do all the work including fetching water and herding goats, just three days after giving birth*” (FGD with young mothers, Abdilohow village). This is very hard on both the mother and the baby as the child stays without breastfeeding for most of the day. The mother, on the other hand, stays away the whole day without eating food. Fetching water takes most of the morning as it can be up to 11 kilometres away from the village. The mothers added that “*sometimes, the mother has to take the new-born baby with her*”. The heavy work of mothers includes: cooking, cleaning, taking care of children, looking for water, firewood and sometimes looking after livestock in the field. “*Pregnant women in this community experience excess work such as cooking, cleaning, looking after children and at times looking after animals*” (a mother with a malnourished child, Karowshidle village). Another said “*caregivers in this community do a lot of work starting from looking for water, looking for firewood, cooking, and some go to take care of animals*” (older mother).

High rates of separation and divorce (often associated with girls being forced to get married very young), have resulted in many children losing one parent. This means the remaining parent, almost always the mother, is overburdened. Divorce and separation come with exaggerated caregiver workloads, of caregivers with detrimental consequences for family health and nutrition.

Poor immunisation coverage of children under five - The NCA study established that immunisation services have never really existed among Dollow’s pastoralist community. Most respondents were unable to remember when they last saw immunisation take place in their community. “*They don’t have any vaccination services in this community*” (a father, Abdilohow village). “*Measles vaccinations were given a long time ago in this community, we need assistance of a health facility*” (an older mother).

Lack of Antenatal Care (ANC) services for pregnant women - Pregnant women have to walk a long distance to Dollow town to reach the nearest ANC services. This takes around 6 hours for a return trip. “*The health facility is very far away from the village, for a pregnant woman travelling by foot to Dollow town to get healthcare is a problem*” (a mother of a malnourished child).

2.5.4 Poor Household Dietary Diversity

As noted above, the pastoralist diet commonly lacks diversity. The studied communities typically consume milk and meat when available, with foods like maize, sorghum and vegetables rarely eaten. For those who eat other foods (mainly carbohydrates including maize, sorghum and sugar), they purchase them using income from selling or exchanging milk and livestock. “*The main sources of food in this community are livestock keeping, where we get meat and milk. We sell animals and milk to get money to buy food from town*” (FGD with mothers of malnourished children, Karowshidle).

A typical pastoralist breakfast includes milk or porridge (made of sorghum) in the morning. They often have to skip lunch and then consume milk and meat for dinner. No vegetables were reported to be part of the usual pastoralist diet. Inevitably such practices and limited diets increase the vulnerability of local children and other family members to acute malnutrition. To address this issue, awareness and knowledge-raising is needed alongside long-term social and behavioural change initiatives focused on IYCF in particular. To support these changes, basic health and nutrition services need to be available and accessible to these communities.

2.5.5. Select Socio-Cultural Beliefs and Norms

The study established that the pastoralist communities studied have many socio-cultural beliefs and practices which impact adversely on their nutrition. These include food taboos which in particular affect Pregnant and Lactating Women (PLW), infants and children, for example:

- Baby boys are not given sour cow’s milk. It is believed that this risks making boys infertile or barren later in life. “*The community does not give sour cow’s milk to baby boys, as it makes the baby boy infertile*” (a father, Gubata village).
- Animal liver is not given to children because it is believed to lead to delays in learning to speak. “*If children are given liver they don’t speak quickly, that is one of the cultural beliefs and practices of this community that has an effect on nutritional well-being of children*” (a mother). Liver is an important local source of iron, lack of which can fuel anaemia and iron deficiency.
- “*Baby boys are not given kidney because it is believed they will become cowards*” (an older mother, Gubata village).

Pastoralists widely practice FGM, which has profound and life-long negative consequences for the health, nutrition and well-being of girls. Excessive bleeding is a common side effect which fuels anaemia among girls. FGM makes the girls more vulnerable to infection and makes for more painful deliveries. Many expectant girls and young women eat poorly during pregnancy to protect themselves (they believe) against having to give birth to a large baby and rupturing in the process. This happens in a context where very few women can access professional medical care during childbirth and where using TBAs remains the norm.

2.5.6 Weak Environmental Health Conditions

Poor environmental health conditions greatly impact on the nutritional status of Dollow’s pastoralist communities.

Poor access to water - The NCA respondents reported that lack of water remains one of their greatest problems, no reliable source of water in the community. They do not have boreholes or shallow wells. Repeated drought in the area compounds the issue of access to sufficient or clean water among the pastoralist communities. "Water is one of our greatest problems in this area. We don't have water for our animals. We move from one point to another looking for water and pasture. Are you able to give us water?" (A father, Gubata village). This point was reinforced by another source "*We lack enough water, food is available, but there is no water to be used in cooking*" (an older mother, Laanbule).

There is even less access to clean water, which inevitably leads to the use of dirty water which impacts on the health and nutritional status of community members and of children in particular.

Poor sanitation is prevalent in the area with very few or no latrines in the communities studied. People use the nearby bush for defecation and urination. Open defecation for children, near and around the homestead, is common practice. Babies' faeces are disposed of openly near the house. "*There are no latrines in the village, even older people go out there for defecation*" (a mother with malnourished child, Karowshidle village). "*Baby faeces are disposed of openly under bushes near the homestead*" (another mother). Similar sentiments were expressed in all other study villages, for example a father said "*Faeces are disposed of under trees... Faeces of a baby are disposed of openly under bushes near the homestead*" (a father, Gubata village).

The above practices fuel a vicious cycle of worsening hygiene and increased vulnerability to infections and malnutrition in the communities concerned. When animals graze on land contaminated by faeces disposed of in fields, they can become infected and infect humans in turn. Inevitably, infants and children quickly come into contact with faeces while playing on the ground, causing diarrhoea, cholera, typhoid and a whole array of related health and nutrition concerns.

The NCA research teams were shocked by levels of sanitation, the lack of hygiene and the bad smells and excessive flies around households which they observed during fieldwork. Flies quickly contaminate food and fuel the spread of common diseases. Ensuring access to basic, and potentially life-saving, WASH facilities and ensuring positive WASH practice, particularly where infants and young children are concerned, remains an urgent priority for these communities. Other steps can be taken to improve sanitation and health in these communities. For example, the promotion of cheap, locally woven mats for babies and young children to play on. These could be provided through local IGAs and are a relatively cheap and easy measure which could make a difference to local hygiene, health and nutrition.

Poor hygiene – In addition to the hygiene issues mentioned above the study found poor handwashing practices. Caregivers do not use soap when washing their hands and children continue to drink unclean water which rapidly fuels disease. In turn this affects the appetite of sick individuals, fuelling vulnerability and malnutrition. Bear in mind that those concerned already have a poor diet and are vulnerable to infection and disease. However, on a positive note some community members do use ash for hand washing. Proper handwashing with ash before and after prayers was noted to be a religious requirement. This highlights one local practice which could be strengthened in efforts to improve effective hand washing and hygiene across these communities.

2.5.7 Limited Humanitarian Assistance

The NCA Dollow pastoralist study highlighted that humanitarian assistance remains very limited among these communities and they have not received assistance for some time. Respondents indicated that food given as humanitarian assistance is not enough and only one type of food is typically distributed. Related challenges noted by respondents included little amounts of food being given, lack of equity and honesty by food distributors working with community leaders, who often prioritise their relatives and friends. "*The assistance given does not contain good vitamins, they give sorghum and maize which are not enough... There is a lack of accountability among community leaders in distribution*" (an older mother, Laanbule).

2.5.8 Repeated Cycles of Drought

Respondents cited drought as a main driver of acute malnutrition among Dollow's pastoralist communities. Prolonged drought in the area is common and repeatedly affects livestock populations through death and poor meat and milk production. It must be remembered that these animals constitute 90% of the local diet. "*Prolonged drought in the village finished meat and milk so the number of animals is low*" (an older mother, Laanbule village). "*The cause of malnutrition among children under five years in this community is droughts, when many animals die resulting in less milk and meat*" (a father, Karowshidle village).

2.5.9 High Rates of Childhood Illness in Children Under Five

The pastoralists studied revealed that disease remains a key factor fuelling malnutrition in children under five. Common diseases mentioned include diarrhoea, malaria, pneumonia, worms and common colds. Infections generally exacerbate malnutrition due to infection-associated loss of appetite, increased nutrient requirements and/or a decrease in the body's ability to effectively absorb nutrients. "Malnutrition among children under five years old is caused when diseases like diarrhoea spread in the area" (a father,

Karowshidle village). “When there is a lot of disease like malaria, pneumonia and common colds, the child may become malnourished” (a father). Another father noted “*the other causes include worms which affect children under 5 years*”.

Clearly, many factors combine to fuel high rates of illness among local infants and young children, which remain a major cause for concern. This can only be tackled through effective, sustained, cross-sectoral efforts which build on community strengths and potential. There are implications for all service providers, including for humanitarian and development actors working with such communities.

2.5.10 Limited Access to Adequate Health Services to Prevent and Treat Acute Malnutrition

Absence of health and nutrition facilities - The Dollow NCA study found that there are no health facilities or nutritional centres readily accessible to the pastoralist villages studied, with the nearest being approximately 15 kilometres away. Even basic health and nutritional services remain lacking. “There is no health facility in the village that provides medical care when people are sick” (a father, Karowshidle village). Excessive distance and lack of access to affordable local transport prevents most community members from reaching a health centre or hospital for treatment.

Lack of transport to health facilities - Lack of transport to reach the distant health facility remains a major challenge to the pastoralist communities studied. Donkey drawn carts are slow and expensive for families with very little income. “*There is no good road or cars here... it takes many hours to reach the hospital in Dollow which is approximately 12 to 15 Kilometres away*” (a mother). Until basic health and nutrition services are available and accessible within a reasonable walking distance, the lack of transport will remain a barrier to access and will hinder attempts to improve health seeking behaviour, adversely affecting the health and nutrition status of these communities.

Use of traditional remedies and healers before visiting a health facility - Pastoralists strongly believe in the use of herbs provided by traditional healers, preferring this as a first option and not going to a health facility or hospital until a child becomes very sick, which is often too late. “*When a child is ill we take him to*

the traditional healer or get herbs from the bush for treatment” (mother, Gubat village). “*When a child is very sick we call the Sheik to come and recite the Quran for him*” (an older woman, Abdilohow village). Concerted efforts need to be made both to provide basic health and nutrition services and to ensure they are accessible and of a good quality. As part of such efforts it is important to explore working with those in the community that are trusted and have the ear and support of the community, including religious leaders, traditional healers, herbalists and TBAs.

Long waiting times at the health facility – Communities mentioned that after struggling with long distances and high-costs of local transport to access health services, they are generally confronted with long queues and it takes a long time to see a doctor. This can lead to the worsening of their children’s conditions while at these facilities, some die while waiting to be seen. While this reality is affected by many factors including insecurity, lack of access for health workers, nutritionists and others and a significant lack of well trained personnel across the health and related sectors in Somalia, it is one that needs to be addressed if malnutrition is to be overcome.

Lack of appropriate services and drugs at the health facility – When they do visit clinics/ hospitals, pastoralists commonly experience a shortage of health staff to attend to them. They complain about not receiving quality services that meet their needs and the frequent absence of drugs. This follows considerable effort on their part to get to the facility in the first place.

All the above realities illustrate the scale of the challenge in a situation where the prevention of nutrition related morbidity, promotion of immunisation and provision of adequate food supplements, among other essential services, remain seriously inadequate or unaddressed.

The NCA study noted that most caregivers lacked knowledge on the importance of visiting health centres for health and nutrition care. This highlights a need to improve pastoralist knowledge and awareness on the importance of health centres, to improve access to and the services they receive if they do make it. “*Some caregivers in this community don’t know how important the health centre is for them*” (a mother of a malnourished child).



3. Discussion and Conclusions

It is often assumed that pastoralists are generally less vulnerable to food insecurity, due to a combination of political and natural circumstances which include their political-military strength and the mobility of their livestock based assets. However, in the Somali context, pastoralist communities have been repeatedly affected by drought, restricted grazing mobility due to insecurity, conflict-induced asset depletion, increasing commercial and communal debt, poor terms of trade in some areas due to distance from markets and border closures, and trade disruptions (livestock import/export bans). Other interruptions include an unregulated trade system which provides limited return to producers, high rates of expenditure on social services and production inputs such as livestock drugs and treatment, and poor livestock healthcare systems with unregulated drug markets alongside population expansion (Sage and Majid (2002).

In the Dollow context, pastoralist communities have the potential to improve their nutritional status. The pastoralist communities already have resources such as livestock including cows, goats, camels and donkeys which is to their advantage. They need to be empowered on how to better utilise these resources to improve their nutritional status.

The NCA study established various factors which contribute to high levels of acute malnutrition among pastoralist communities. One of these is poor household food security, characterised by minimal access to and availability of food caused by lack of money, drought, distance to the market and lack of water among other factors.

The NCA qualitative research revealed that limited livestock management and productivity were other factors which contributed to acute malnutrition among pastoralist communities in Dollow. This was mainly due to the lack of an animal health care system and lack of animal drugs, which has contributed to low production of milk and meat and also reduced animal numbers through death. FSNAU (2009) recommends mobile health programmes for livestock among pastoralist communities.

Another key factor which has contributed to acute malnutrition is adequate basic knowledge on nutrition.

The study discovered that none of the caregivers in pastoralist communities in Dollow had attended school. Likewise, caregivers did not have knowledge about nutritious foods. All children in the villages visited attended Quranic schools so it could be useful to explore opportunities to promote how nutrition in this setting.

Poor IYCF practices featured significantly as a key contributor of acute malnutrition among pastoral communities. Poor IYCF was characterised by notably weak and inappropriate breastfeeding, inadequate complementary feeding, poor health seeking behaviour, inappropriate psycho-social care practices towards children under five, and low immunisation coverage of children and a significant lack of antenatal care services for pregnant women.

The NCA study also found that poor household dietary diversity plays a role in fuelling malnutrition among children under five in Dollow pastoral communities. They consume meat and milk as their staple food, with any supplementary food purchased through the sale of milk or livestock. This finding concurs with those of Andre (2002) and Grobler-Tanner (2006).

Some socio-cultural beliefs and norms were other key factors contributing to acute malnutrition. They include food taboos for PLW and children in particular which prohibit certain foods for these groups with others working against good health and nutrition. FGM is common practice with negative consequences for the health and nutrition of girls, women and infants.

The great majority of pastoralist community members do not have access to clean water, sanitation or hygiene, which notably impacts on their nutrition. Lack of access to clean potable water, combined with poor sanitation, makes for major public health challenges in the communities studied. This supports the findings from earlier studies including Grobler-Tanner (2006). Pastoralists complained that they have not received any aid for a long time.

Of note is the very poor access to any formal health or nutrition services, which make for a low number seeking treatment. When they are accessed, health facilities were reported to be under-staffed and not

stocked with basic drugs. Queues appear unacceptably long for patients who have travelled long distances to reach them and indications are that the whole health system remains hugely under-resourced. Nutrition sites or services appear non-existent according to the NCA study.

In conclusion, it is clear that poor household food security, lack of basic knowledge about nutrition, insufficient income, low levels of education, lack of basic essential services (nutrition, health, WASH, education and others) and suboptimal IYCF and care practices significantly contribute to the high, prolonged and not improving rates of acute malnutrition in the area. Other key factors influencing this include caregivers' heavy workloads, poor dietary diversity, adverse socio-cultural beliefs and norms, weak environmental health conditions, limited humanitarian assistance, repeated cycles of drought and limited access to the few health services available to effectively treat acute malnutrition.

Summary of key findings

1. Poor household food security as a result of drought, lack of income, distance to markets and lack of water and prolonged insecurity. As well as impacting on household assets and food consumption, pastoral communities also have few animals to sell, in order to supplement their own livestock products.
2. Lack of basic knowledge about nutrition, especially on the importance of a balanced diet, hinders strong nutrition.
3. Suboptimal IYCF and care practices.
 - Inappropriate breastfeeding practice including the late initiation of breastfeeding and not practicing exclusive breastfeeding.
 - Inadequate complementary feeding practices, including the premature introduction of complementary foods and poorly balanced diets, which generally consist of sorghum and rice. In the communities studied it was found that within 15 kilometres of Dollow town family livestock is increasingly sold to raise cash for food purchases. This might be leading to a deterioration in diet, with milk and meat consumed less than in the past. Further research is needed into this phenomenon, and the factors driving it and ways of mitigating its negative impact.
 - Poor health seeking behaviour. General practice is to first consult religious leaders and herbalists. Interviewees claim they cannot access even basic formal health facilities.
4. High levels of early marriage, often from 15 years old, and forced marriages, which fuel a vicious cycle of premature pregnancies and high divorce rates. The ease and increasing regularity with which divorce happens, especially when young girls are forced to marry, was noted by respondents.
5. Women headed households are on the increase, especially as divorce becomes more common.
6. Lack of antenatal care services for pregnant women.
7. Limited child spacing which works against optional IYCF.
8. Some dominant socio-cultural beliefs and norms, including children not being given liver, boys not being given kidney due to fear of becoming a coward and boys not given sour milk due to local beliefs of it causing male infertility, can impact on nutrition.
9. FGM fuels anaemia and leads to poor eating practices during pregnancy to prevent large babies and ruptures during childbirth. It intensifies the fear of bearing a large baby, which negatively impacts on the diet of pregnant women (often young girls).
10. Poor environmental health conditions, in particular poor access to both water and clean water, poor sanitation and the lack of latrines. The pastoral communities studied are more settled than nomadic, making this issue more pertinent.
11. Limited humanitarian assistance. Respondents shared their experience of not receiving food assistance for many years.
12. Limited access to services for the effective treatment of acute malnutrition
13. Low levels of formal education - no caregivers interviewed had attended formal schooling. Children mostly attend madrasas, which creates openings for nutrition promotion.



4. Recommendations

Specific recommendations stemming from the Dollow pastoralist NCA research follow.

1. Strengthen awareness and empower caregivers and other community members with health, nutrition and other necessary knowledge, including on:
 - Use of their livestock products to improve their nutritional status.
 - Optimal breastfeeding.
 - Complementary feeding.
 - The importance of appropriate health seeking behaviour.
 - The importance of proper sanitation and hygiene practices.
 - Knowledge about balanced diet.
2. Develop and support long term social and behavioural change communication programmes linked to all the above.
3. Improve nutrition, WASH and related knowledge and awareness amongst pastoralist leaders, CHWs, TBAs and others as feasible. Strengthen referral services to accessible health and nutrition services (where they exist).
4. Improve the capacity of Community Animal Health Workers on livestock management. Ensure their accessibility, in particular to vulnerable community members.
5. Concerted efforts need to be made to provide urgently needed basic, quality and accessible health and nutrition services and to encourage their use by vulnerable community members.
6. Opportunities to educate boys and girls on nutrition through schools (including Quranic schools) and School Health Clubs should be further explored.
7. Improve the health and security of pastoralists' livestock.
8. Provide mobile health, nutrition and livestock programmes to service the relatively settled pastoralist communities. In particular:
 - Introduce mobile services along migratory routes, or construct health posts along long term migratory routes.
 - Develop and support teams of mobile health

and nutrition workers to service these communities.

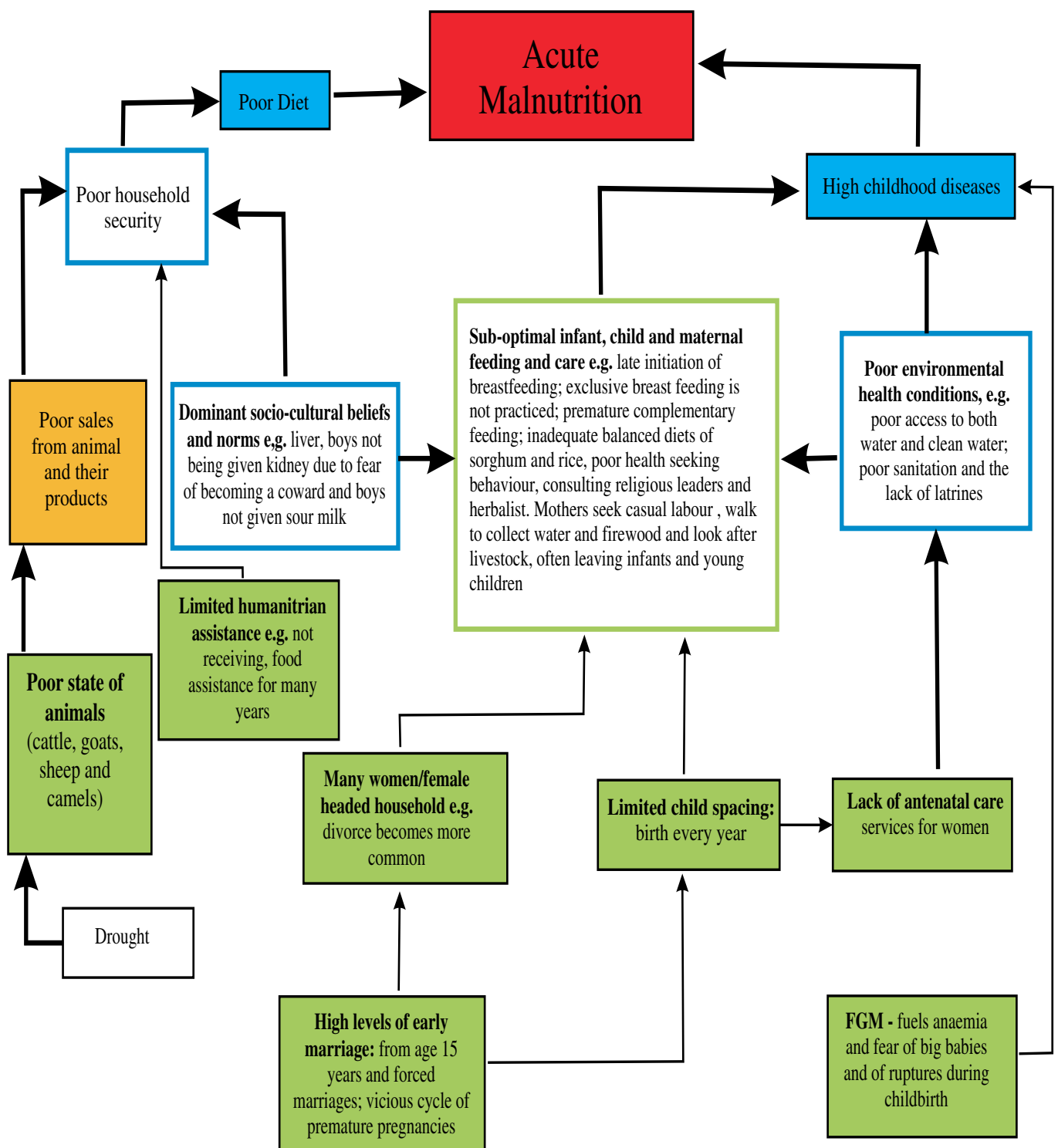
9. Establish mobile schools and educational programmes, accessible to the communities studied.
10. Strengthen community resilience to drought by supporting collective action to reduce and mitigate the effects of drought, and establish appropriate drought recovery mechanisms.

Recommendations for Further Research

1. Further research is required on how best pastoralist communities in Dollow can use livestock products to improve their nutritional status. With the general availability of milk from cows, camels and goats, the nutritional status of pastoralist communities in Dollow should be better.
2. Nutrition programmes need to link closely with others that support livestock rearing and the production of livestock products. Where possible this could be coupled with the provision of cash for livestock keeping and support to ensure that related sales help to benefit the nutritional status of pastoralist communities.
3. Further work is needed to explore the potential of select local experts, already "legitimized" by the community, to assist in providing accurate information, improving health seeking behaviour and encouraging more timely referrals. This includes religious leaders, traditional healers, herbalists and TBAs who already have the ear and support of most community members.
4. The NCA found that among the Dollow pastoral communities studied, who reside within 15 km of Dollow town, family livestock is increasingly sold and cash paid for food. This appears to be worsening household diets, as milk and meat are being consumed less than previously. Further research is needed into the factors that drive this phenomenon, to inform appropriate responses.

The Dollow pastoral causal pathway follows on the next page.

5. Causal Pathway - Dollow Pastoral



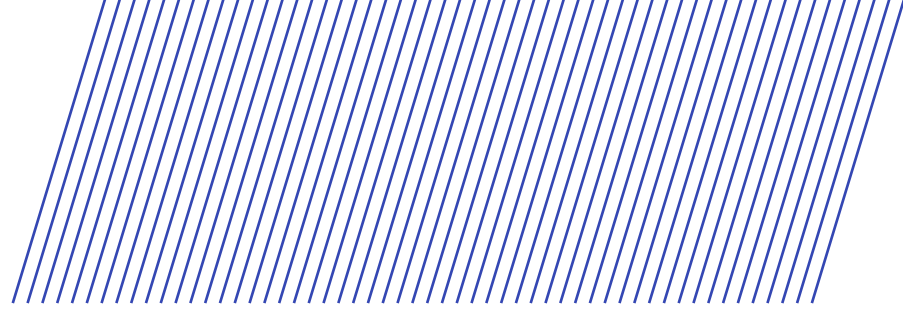
NCA Study among Baidoa Agro-Pastoral Communities

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Baidoa

Agro-Pastoral Communities

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Executive Summary

Agro-pastoral populations in southern Somalia (including Baidoa) primarily come from politically and militarily marginalized clans. They have been among the greatest victims of violence since the collapse of the Said Barre regime in 1991. Insecurity, combined with poor rains and harvests, has resulted in significant displacement and asset losses of both food and livestock. These factors have increased the long-term vulnerability of communities and contributed to Critical levels of malnutrition. Poor health and nutrition is made worse by substandard water supply and sanitation and the poor quality of dietary intake, even when adequate food appears to be available. It is common for whole families to share dry food and nutrition rations provided specifically for children attending nutrition programmes. In these contexts, the recovery of households is extremely slow and many have been rendered destitute.

Key factors undermining agro-pastoral livelihoods include:

- Poor rain and consecutive seasons of crop failure.
- Conflict-induced asset depletion of fixed assets such as land.
- Trade disruptions due to conflict and potential border closures.
- Physical isolation from ports and services in Somalia's main urban centres.
- Lack of security resulting from violence and economic exploitation, especially for weaker social groups.
- Significant commercial and communal debt.
- Crop pests, disease and bird attacks.
- Decreasing levels of assistance from international aid agencies.

A Nutritional Causal Analysis (NCA) investigation was conducted among Baidoa agro-pastoralists to determine the key factors contributing to acute malnutrition in these communities, given the constantly Critical levels of malnutrition in the area. Key NCA findings are highlighted in this report and key recommendations made to influence future programming.

Key Findings

1. Lack of basic nutrition knowledge e.g. on balanced diets, resulting in poor dietary diversity.
2. Low agricultural produce leading to poor household food security. This is largely due to prolonged, extreme insecurity which has limited the typical size of farms cultivated and access to farming land.
3. Shift to casual work for the agro-pastoral communities as a result of prolonged and extreme insecurity in most villages surrounding Baidoa town.
4. Men chewing khat is significant in the communities studied and it impacts on family nutritional status. This is because family farm produce is often sold by these fathers to buy khat (rather than consumed by the family) and because the fathers who chew khat regularly do not typically contribute to family income.
5. Suboptimal Infant and Young Child Feeding (IYCF) and care practices:
6. Inadequate child spacing (generally 1 child per year), which negatively affects breastfeeding (breastfeeding is stopped as soon as the mother becomes pregnant again) and the care of siblings.
7. The weak psycho-social situation of many mothers who commonly complain of exhaustion and not having the time and energy to care for their children well, especially when fathers are absent (physically or socially).
8. Poor childcare and absentee mothers e.g. children left unattended when their mother is seeking work, which typically lessens opportunities to breastfeed.
9. Inappropriate breastfeeding practices e.g. the dominant practice of giving honey and water to newborn infants, not practicing exclusive breastfeeding or the early initiation of breastfeeding. These are worsened by mothers' heavy workloads and premature subsequent pregnancies.

10. Inadequate complementary feeding practices, little food diversity combined with premature cessation of breastfeeding.
 11. Poor health-seeking behaviour. Families first approach traditional healers and religious leaders, which can result in dangerous delays in approaching health centres.
 12. Some dominant social-cultural beliefs and practices, e.g. food taboos for pregnant women like not being able to eat mutton and honey due to the fear of miscarriage or that eating eggs, fruits and vegetables causes the foetus to overgrow in the womb, thus making delivery difficult.
 13. Pregnant women under-eating due to the fear of giving birth to a big baby and related ruptures, especially in the aftermath of FGM.
 14. Insufficient income - these communities are being pushed into a cash economy at a time of rampant insecurity which negatively impacts on household food production and lessens self-sufficiency.
 15. Poor environmental health conditions, in particular inadequate safe drinking water and limited access to latrines.
 16. Low levels of education. None of the caregivers interviewed in the NCA research had attended formal school, though the majority of them had attended Madras for religious teachings.
 17. Lack of adequate humanitarian assistance. In this context food rations, farm inputs (seeds and tools) and veterinary services were mentioned.
- social change communication programmes.
3. Work closely with Community Health Workers (CHWs), Traditional Birth Attendants (TBAs) and others who are regularly consulted by local communities when official health services remain largely inaccessible. Upgrade their knowledge, skills and referral mechanisms (to official services) as feasible.
 4. Explore opportunities to support local communities with farming resources such as quality seeds, basic farm tools and training on appropriate, low-input, sustainable agricultural practices.
 5. Improve availability of and access to veterinary services and appropriate livestock drugs.
 6. Further research is needed into the impact of fathers chewing khat regularly on family nutritional status of their families.
 7. Explore opportunities to strengthen father engagement in IYCF and other programmes linked to the health of their families.
 8. To support the above, explore opportunities to effectively engage community and religious leaders in IYCF promotion efforts.
 9. Explore local opportunities to strengthen women's support networks and to establish effective mentorship schemes.

Key Recommendations

1. Improve caregivers' basic knowledge about nutrition and health through IYCF, one to one counselling of mothers and other promotion efforts.
2. Establish appropriate long-term behavioural and



Context

1.1 Background

The majority of Somalia's agro-pastoralist groups live along or between the Juba and Shabelle river valleys. Cattle are the dominant livestock species reared and sorghum the primary crop cultivated. Within this group there is diversity in how cropping and livestock are combined by particular communities. Cropping is a good source of food, particularly sorghum which provides carbohydrate. On the other hand, livestock is a good source of milk and meat which provide protein. Both crops and livestock can be sold to get money for purchase or exchange for other foods. Proximity to markets is also important, especially in light of the poor state and significant on-going deterioration of road conditions. The major criteria determining the wealth status and coping potential of agro-pastoralists is the size of land cultivated and the number of animals owned by a particular household (Sage 2002).

Baidoa District is located in Bay region in the southwest of Somalia. The main livelihood is agro-pastoralism. The agro-pastoralists in Baidoa are in two main areas, one which has high sorghum production potential and one with low production potential (FSNAU 2015). The available reports indicate that in the last five years, Baidoa's agro-pastoralist population has mainly been assessed as part of the Bay agro-pastoral areas, with the exception of a Save the Children survey in January 2014 which covered Baidoa district. Bay agro-pastoral surveys have been considered in this review as they provide a broad over view of Baidoa agro-pastoralist areas. This livelihood strategy is dependent on rain-fed agriculture with sorghum being the main cereal cultivated, followed by maize, cowpeas, sesame and groundnuts. Cattle are the main type of livestock, alongside sheep, goats and camels.

In general, agro-pastoral households are considered among the most food-insecure populations during drought periods. As elsewhere, their vulnerability is due to a combination of natural and man-made factors. Agro-pastoralist populations in southern Somalia primarily come from clans that are marginalised politically and militarily. They have been among the greatest victims of violence since the collapse of the Said Barre regime in 1991 (Besteman and Cassanelli, 1996). Combined with poor rains and harvests, the resulting asset losses (both food and livestock) and displacement have resulted in large scale deficits and heightened vulnerabilities.

1.2 Introduction to the Community Studied

Baidoa District covers one of the largest areas of the Bay agro-pastoral community. The district is generally considered to have good agricultural productivity with good soil fertility, high annual rainfall levels ranging from 500 mm to 600 mm and an altitude of 100-500m above sea level. During a normal year this area receives some of the highest rainfall levels in Somalia. It is also the single largest cereal producer in the country and essentially comprises Somalia's 'Sorghum Basket' (FSNAU 2009). Baidoa District has a population of approximately 247,670, of which the agro-pastoralist population was 173,370 in 2005 (UNDP, 2005).

Agriculture is purely rain-fed and sorghum is the main cereal grown, followed by maize, cowpeas, sesame and groundnuts. Crop yields during the reference year averaged 0.5-0.6 metric tons per hectare. Baidoa, Qansahdhere and Dinsoor Districts are some the higher producing areas. Vegetation mainly consists of drought-resistant bushes, acacia trees and seasonal plants which are suitable for livestock grazing. Cattle are reared more than other species (sheep, goat and camel) and different wealth groups within the community have varied livestock holdings.

1.3 Nutrition Situation

Baidoa's agro-pastoralists are one of few population groups in southern Somalia that have persistently recorded extremely high levels of acute malnutrition in the last five years. Out of the eleven nutrition surveys conducted between 2010 and July 2015 covering the Baidoa agro-pastoral zone, three recorded Very Critical (famine IPC phase 5) levels of acute malnutrition with a Global Acute Malnutrition (GAM) prevalence of ≥ 30 , eight had GAM levels of 15-22% considered as Critical and only in the July 2015 survey was a Serious GAM prevalence of 14% reported. The highest level of acute malnutrition recorded among this population group is a GAM prevalence of 58.3% in August 2011 and Severe Acute Malnutrition (SAM) prevalence of 29.8% reported

in July 2014. These are alarming as the highest levels of acute malnutrition ever been recorded in Somalia over the last fifteen years. Overall, reports reviewed show a Median GAM prevalence of 19.6% and SAM prevalence of 5.5%. This reflects the persistence of Critical levels of acute malnutrition among Baidoa agro-pastoralists based on WHO classification in the last five years. It is also worth noting that Bay agro-pastoral population has the highest stunting level in Somalia, of >40%, reflecting a chronic malnutrition problem.

These extremely high levels of acute malnutrition have been linked to multiple factors which include: recurrent food insecurity, lack of a varied diet, chronically high levels of morbidity, poor access to health, sanitation and water services. The vulnerability to food insecurity was highlighted in 2011 following two consecutive seasons of crop failure the population did not produce enough food for household consumption (staple food and milk) or for sale, to generate income to purchase other food or non-food items. Diet consumed among the agro-pastoralists lacks variety and is mainly cereal-based.

Chronically high levels of morbidity have also been directly linked to elevated acute malnutrition. As many as 68.3% of children were reported as sick two weeks prior to the assessments conducted among agro-pastoralists in Baidoa. Overall, the median prevalence of children reported to have been suffering from one or more childhood illness in the last five years is 29.1%. Fever, diarrhoea and acute respiratory diseases are the most prevalent illnesses reported. Cholera and Acute Watery Diarrhoea (AWD) outbreaks are regularly reported. Chronic issues such as to suboptimal IYCF, limited access to health facilities, or safe water and sanitation facilities and low coverage of health and nutrition services such as vitamin A supplementation, have also contributed to high levels of acute malnutrition. (FSNAU Gu 2011, 2013 & Gu 2015)

Micronutrient status: There has not been a comprehensive micronutrient study conducted among the agro-pastoral population in Baidoa district for the last five years. However, data from the Somalia

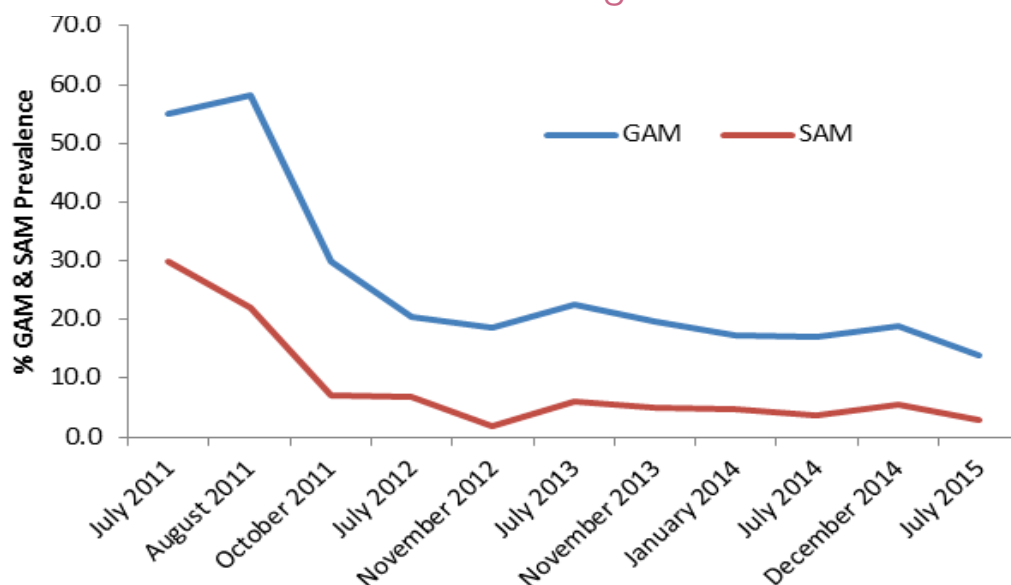
National Micronutrient Study done in 2009 by FSNAU and partners in sampled villages from Baidoa shows a general picture of the micronutrient status in the district. Based on this report, prevalence of visible goitre among children aged 6-11 years in South and Central Somalia is 0.3%, anaemia prevalence was 36.5%, iron deficiency 22.9% and vitamin A deficiency 40.3%. In addition, the micronutrient status among women of reproductive age was as follows: vitamin A supplementation coverage 22.8%, visible goitre 1.4%, anaemia 53.8%, iron deficiency 43.3% and vitamin A deficiency 58.9%. In addition, a review of Vitamin A supplementation, a proxy indicator of vitamin A status, shows very low coverage with a median coverage of 8.3% recorded from 11 surveys conducted by FSNAU and partners in the last five years. The FSNAU survey for July 2015 recorded Vitamin A supplementation coverage of 7.4%. A survey conducted by SCI in Baidoa in January 2014, recorded slightly higher coverage of vitamin A supplementation at 37.3% and 46.2% among children aged 6-11 and 12-59 months respectively. Overall, these results highlight a picture of poor micronutrient status.

IYCF: Information from a SCI January 2014 survey highlighted the following on IYCF.

- 31.8% of mothers' practiced early initiation of breastfeeding.
- 45.7% of mothers' practised exclusive breastfeeding for the first 6 months.
- 68.4% continued to breastfeed their babies up to one year.
- The early introduction of semi solid, solid and soft foods was high at 83.9%.
- Those meeting minimum meal frequency was average at 51.4%.
- The minimum diet diversity was 64.8%.
- 52.3% of the children meet the minimum acceptable diet.

These results show a significant proportion of children are poorly fed. Reviewed reports consistently link high levels of acute malnutrition to poor IYCF.

Figure 1: Trend of GAM and SAM Baidoa Agro-Pastoral 2010 - 2015



1.4 Food Security

A review of the available food security assessment reports from FSNAU and partners reveal the vulnerability of Baidoa agro-pastoralists to food insecurity in the last five years. Baidoa agro-pastoral areas are one of the few areas in southern Somalia that experienced famine in 2011. As shown in the summary table below, in the last five years, emergency food insecurity has been experienced twice (post Gu 2010 and Deyr 2011), Crisis has been reported three times (post Gu 2011, Gu & Deyr 2012) while in the remaining five seasons, including recent post Gu 2015, Stressed levels of food insecurity have been reported. Food security in Baidoa is determined by the cereal harvest which is the main source of food and income and as stated above yield is greatly dependent on seasonal rainfall performance.

The Bay agro-pastoral high potential and low potential areas are distinguished by average cereal yield, average amount of rainfall, occurrence of drought and the role of agricultural land and livestock holding in determining the wealth groups. The Bay agro-pastoral high potential zone has higher rainfall, experiences less drought and its population are more resilient with higher cereal yields. This results in the population normally having food stocks between seasons. Ownership of agricultural land determines the wealth group in this livelihood zone (FSNAU livelihood profile 2009). On the other hand, the Bay agro-pastoral low potential zone is vulnerable to food insecurity due to recurrent drought. Livestock holdings are the major determinant of wealth.

Typically, poor agro-pastoralist households in Baidoa obtain 60–70% of their annual food requirements from crop and livestock production while market food purchases account for 30–40% of food. Poor agro-pastoralist households earn about 50% of their annual cash income from employment (agricultural and construction labour, herding and petty trade) and self-employment (sale of bush products and charcoal). In addition, 25-35% of income comes from the sale of livestock and livestock products (milk, ghee, hides/skins) and crop production sales. Remittances and gifts account for 15-25% of income sources (FSNAU post-Gu 2014). More than 60% of the poor agro-pastoralist's income is spent on food. This renders them highly vulnerable to food insecurity in the context of rain failure due to lack

of own production and loss of agricultural labour on the farms of others. Their vulnerability is further enhanced by their small livestock herds leaving them with few for sale to cater for food and non-food needs.

Seasonal rainfall performance and the resultant impact on cereal and livestock production is the key determining factor of food security status among Baidoa's agro-pastoralists. For example, the main factors that contributed to significant deterioration in food security resulting in famine in Gu 2011 included two consecutive seasons with poor rainfall (Deyr 2010 and Gu 2011) which resulted in crop failure (estimated at only 19% of average production), poor pasture, browse and water conditions which caused deterioration in livestock body conditions, drop in livestock prices and limited milk sales. These were further complicated by high cereal prices (because of low cereal supply), restricted humanitarian assistance, limited labour opportunities and social support.

On the other hand, the improvement of food security post-Gu 2013 was largely attributable to the impact of normal to above normal Gu 2013 seasonal rains and the subsequent near average crop production, increased farm labour opportunities, improved rangeland and enhanced livestock body conditions, high livestock prices and strengthened purchasing power (FSNAU Post Gu 2013). This was further enhanced by increased humanitarian access which boosted the provision of essential services including food, nutrition and health services.

1.5 Education

Access to formal schools is limited for all wealth groups, but almost all access Koranic education.¹ Typically, 1-2 children per household will attend Koranic schools, depending on the wealth group (FSNAU, 2009).

1.6 Health and WASH

Health services remain limited for most of the agro-pastoral population, with only a few health posts/Maternal and Child Health (MCH) clinics available. Basic drugs are always in short supply and although there is a hospital in Baidoa town, it has insufficient staff and equipment. Problems of endemic disease, waterborne

Table 1: Trend of Food Security Baidoa Agro-Pastoral 2010 - 2015

Months	July 2010	December 2010	July 2011	December 2011	July 2012	December 2012	July 2013	December 2013	July 2014	December 2014	July 2015
IPC Food Security Phase	Crisis 3	Emergency 4	Famine 5	Emergency 4	Crisis 3	Crisis 3	Stressed 2	Stressed 2	Stressed 2	Stressed 2	Stressed 2

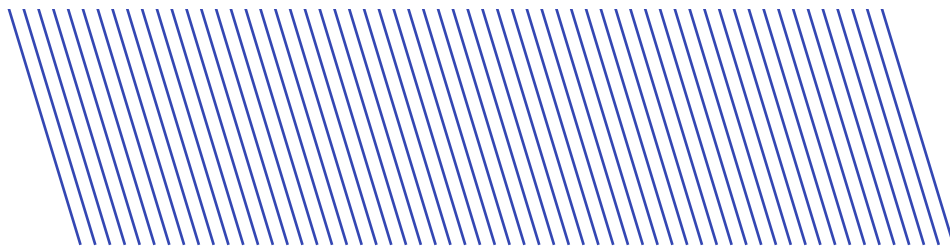
¹ Only a large villages have formal schools.

diseases, lack of proper childcare and lack of basic safe water are all major concerns (FSNAU, 2009).

FSNAU survey reports did not collect or report quantitative WASH data during the review period. The available SCI report (January 2014) noted the following WASH indicators:

- 53.9% of households have access to some kind of latrine.
- 3.1% of households use soap to wash.
- 8.4% of households are treating drinking water.

These figures indicate widespread sanitation and hygiene improvements needed among Baidoa's agro-pastoralists. According to FSNAU's livelihood baseline profile (2009), the main water sources for Baidoa's agro-pastoralists are unprotected water catchments and shallow wells. The use of these sources together with poor sanitation exposes the population to the risk of frequent waterborne diseases. This is an underlying contributory factor to malnutrition.



2. Study Findings and Analysis

2.1 Typical Livelihood Characteristics

The estimated age of mothers and fathers who participated in the NCA study was between 15 and 45 years old. The majority of mothers seem to be less than 30 years old, with older mothers being 50 years and above. Regarding levels of education, the study recorded that 100% of participants (mothers and fathers) had received no formal education at all (including primary). This is attributed to insecurity and the lack of schools in the area.

All mothers and fathers described themselves as field labourers, small scale farmers and livestock keepers. All reported their main sources of food being from food purchases, agricultural produce and humanitarian aid. Sorghum is their staple food and main crop grown. Main sources of income include casual labour and the sale of farming produce, livestock and livestock products like milk. During a Focus Group Discussion (FGD) with mothers one participant stated "I am a single mother without a stable income, the father of my children is dead and I don't have a good job. I do casual work, sometimes I get some income and sometimes I don't. What I get is not enough for me and my children" (the mother of a malnourished child). The income received by parents is mostly used to buy other food items including sorghum,

maize, rice, sugar, cooking oil, beans, milk, meat and pasta, in that order of priority. Other items bought include medicine and clothes.

Relating to wealth distribution, the study revealed that the majority of community members in Baidoa agro-pastoralist communities are poor (approximately 90%), while very few are considered middle income (approximately 10%). No community members were reported to be better off .

During FGDs, the NCA study respondents ranked the sources of food, main sources of income and how income is spent using proportional piling, as shown in table 2 below.

Table 2: Sources of food, income and income expenditure

Sources of food	Percentage (%)	Main Source of income	Percentage (%)	How income is spent	Percentage (%)
Purchases	70 - 80	Casual labour	70-80	Food	70
Agricultural produce	15 - 30	Sale of farm produce	5-10	Human medicine	15
Humanitarian Aid	0 – 5	Sale of livestock	0-5	Animal medicine	15
Sale of livestock products like milk	5-15			Clothes	10

2.2 Historical Timeline of Events

The following table gives a broad overview of the political, social and economic situation and their impact in nutrition.

Year	Month	Event	Event
2011	June to September	Severe drought (Tariinbow)	Low farm production Depletion of food reserves Lack of staple food such as sorghum Death of livestock (the backbone of this population) Hunger faced by children Hunger and displacement (internal and to neighbouring countries) Most of the people become refugees in neighbouring countries like Ethiopia and Kenya
2012			
2013	February - March	Acute Watery Diarrhoea (AWD) outbreaks	Shortage of water and unclean water Children suffering from diarrhoea and vomiting Dehydration Children became very weak Poor consumption by children due to loss of appetite Finally, children became malnourished
2014	March - April	Common cold (oof wareen), which may include spitting blood	Fever Bleeding from the nose and mouth Coughing Weakness Lack of appetite among children causing malnutrition
	June- August	Measles outbreak	Increased rate of fever among children Poor feeding among children due to loss of appetite Children affected by respiratory infections Eyes of the measles affected person become closed and red All the above caused malnutrition Deafness and death

2.3 Seasonal Factors Influencing Malnutrition

Table 3: The seasonal trends and factors impacting on acute malnutrition in Bay Region

H = High; M=Medium; L = low; U = unknown	Months of the year (January to December)											
	J	F	M	A	M	J	J	A	S	O	N	D
Acute malnutrition												
Prevalence of acute malnutrition	M	M	M	L	H	H	M	L	L	M	H	H
Peak of admissions in nutrition centres	L	L	M	M	H	H	M	L	L	M	H	H
Water resources												
Rainy season	L	L	M	H	H	M	M	U	M	M	H	H
Underground water availability	L	M	M	H	H	M	L	M	M	H	H	H
Ground water availability	L	U	M	H	H	M	L	M	L	H	H	H
Other sources (borehole, berkads)	U	U	U	U	U	U	U	U	U	U	U	U
Harvests												
Hunger season	M	M	M	L	H	H	L	H	H	L	H	H
Harvest (staple food)	H	L	L	M	U	L	H	M	L	U	H	H
Harvest wild fruits	H	H	H	U	L	H	H	H	H	L	H	H
Harvest vegetables	M	L	U	H	H	H	L	M	U	L	H	H
Milk availability	U	U	U	M	H	H	M	M	L	H	H	H
Other	H	H	H	L	L	L	M	H	H	L	H	H
Household economy												
Food market prices	L	M	L	H	H	H	M	L	L	H	H	M
Terms of trade (livestock/grain)	H	M	U	L	M	L	M	H	M	U	L	H
Farm employment opportunities	U	U	U	U	U	U	U	U	U	U	U	U
Temporary job opportunities	L	M	H	H	L	M	U	L	H	H	M	L
Movement and family organization												
Moving to farming villages	L	M	L	H	H	U	L	M	L	H	H	H
Livestock transhumance (seasonal movement of people with their livestock)	H	H	H	M	M	L	U	M	H	H	H	H
Farming labour	H	L	M	U	L	M	H	M	L	M	M	H
Health												
Diarrhoea	H	H	H	L	L	H	H	H	H	M	M	H
Malaria	H	H	H	U	L	H	H	H	H	U	M	H
Acute Respiratory Infections (ARIs)	M	L	U	H	H	H	L	M	M	H	H	L
Social												
Social events	L	H	H	M	U	M	H	L	M	U	L	H
Peak of birth	U	U	U	U	U	U	U	U	U	U	U	U

2.4 Local Definitions and Understanding of Malnutrition

The initial FGDs with community members explored local perceptions and understandings of malnutrition. Most FGD respondents related malnutrition to both inadequate food intake and to disease. They said that malnutrition means weakness, thinness and being hungry due to insufficient intake of food.

“Malnutrition occurs when a child becomes thin, sick and loses weight due to lack of food and proper breastfeeding” (FGD, Buulo Jadid village).²

“Malnutrition is when a baby lacks food to feed” (a father).
“If the baby gets good enough breastfeeds there will be no malnutrition” (a father).

“Malnutrition is a situation when a child is affected by diarrhoea, being hungry and weak” (FGD with mothers of malnourished children).

“Malnutrition is when a child becomes thin and skinny, when a baby lacks food to feed” (Fathers’ FGD).

The various signs and symptoms of malnutrition mentioned included that a malnourished child falls sick frequently, is thin and skinny, feeds poorly, does not defecate and cries a lot. Respondents further pointed out that a child with malnutrition suffers from hair loss, develops a distended stomach, oedema and has poor feeding practices. *“A malnourished child can’t sleep well”* (an older mother). *“A child is malnourished when he/she becomes weak and doesn’t have energy”* (a father). *“A malnourished child becomes very weak due to loss of appetite”* (mother of a malnourished child). *“Malnutrition is evident when you feel tired very fast...it is when you can see signs of swelling around the eyes”* (FGD participant, Buulo Jadid).

2.5 Key Factors Contributing to Acute Malnutrition

Respondents were asked to give their opinion about the causes of malnutrition among children under five years old in the community. According to mothers, fathers, older mothers and mothers with malnourished children, the main causes of malnutrition include the following: Ignorance or lack of education, lack of sufficient food, unemployment, absence of a health facility / MCH clinic in the area, lack

of a stable administration, displacement and prolonged drought.

“If the community receive more awareness and a health facility there will be no malnutrition” (Fathers FGD, Buulo Jadid village).

“If there is education, and if it rains well and there is livestock production, there will be no malnutrition” (A mothers’ FGD, Buulo Jadid village).

Others added that there is inadequate humanitarian support and that some cultural practices such as FGM, early marriage and feeding practices contribute to high malnutrition levels. These issues are discussed in more detail below.

2.5.1 Lack of basic nutrition knowledge

Lack of knowledge was mentioned by respondents in almost all FGDs and most Key Informal Interviews (KIIs) in Baidoa District. The NCA confirmed that the majority of the caregivers lack knowledge on the kind of foods to feed their infants and children.

“The caregiver who also cooks food for the family is ignorant. This causes malnutrition in children under five” (older mother). *“Caregivers don’t give the infants food like liver and kidneys. This may make children malnourished”* (a father, Buulo Jadid village). *“Most caregivers in this village do not have knowledge on how to properly care for and feed their children nutritious foods”* (a father).

For different reasons including inadequate knowledge, many caregivers give infants sugar mixed with water and honey during the first 24 hours after birth. Some children are also fed extremely limited diets; *“Malnutrition is caused by feeding the children only sorghum without any complement”* (a father). During the discussion the main reasons given for infants to be given sugar or honey mixed with water was because mothers did not have enough milk to breastfeed the baby. Also they felt that sugar and honey made the infant strong while others thought that a baby has to *“test the sweet things of this world”*.

Many respondents revealed that mothers often do not know how to prepare food for infants and children. Furthermore, only one or two meals are reportedly given in a day.

2.5.2 Lack of nutrition education

There is little awareness about basic nutrition partly due to the lack of forums where mothers can learn together and share information on related issues. There is no health facility or informal school that mothers can attend to discuss common issues of concern. When asked where they get their advice on childcare and feeding, mothers in a FGD said *“we seek advice from older mothers, Traditional Birth Attendants (TBAs), from our father’s in-law and from Quranic teachers”*. They also mentioned neighbours, older sisters and husbands in this respect. They describe older

² This is interesting as it shows that at least some community members are aware of the importance of breastfeeding to the health and nutrition of their children. Such community “resources” (including positive deviants) highlight potential local resources and strengths which should be built on in efforts to address these critical issues constructively.

women as “consultants, advisors and facilitators during delivery” (FGD, Buulo Jadid village). These are interesting findings in terms of local resources to be used to strengthen knowledge and awareness in general, which service providers need to be aware of. There is an assumption that people caregivers seek advice from know more than they do themselves but this is not necessarily correct, they may have inaccurate knowledge. When asked about the kind of advice given it was stated that “they point us to cultural practices and beliefs such as not to breastfeed from both breasts and not to give young children certain foods such as liver and kidney. They also tell young ladies to wear something on her hand for protection from the evil eye”³ (caregivers).

Limited awareness on appropriate IYCF was mentioned by participants in all NCA FGDs. It is therefore seen as a major contributor to the high rates of malnutrition among agro-pastoralist communities. It cannot however be assumed that mothers of malnourished children, including illiterate mothers, do not want to know more. *“The caregiver herself doesn’t have the knowledge on nutrient rich foods like eggs, meat, liver, fruits and vegetables and she is the one who cooks the food for the family. This is due to ignorance which causes malnutrition in children under five”* (an older woman). This mother knows that a child needs to eat a diverse diet to remain healthy. Further research would be helpful to better understand the relationship between the nutritional knowledge of particular mothers and the nutritional status of their children.

2.5.3 Lack of formal education

According to NCA debrief discussions, there is a generation of adults across Somalia, including Baidoa, who have never been able to attend formal school due to prolonged conflict and insecurity. Currently, children from villages where the NCA research was carried out are not able to attend school because there are no schools in any of the four villages studied. The nearest primary school is in Baidoa town, at least six kilometres away, which makes it inaccessible. Consequently, no local women have attended school in recent years.

Mothers are the main providers of care during the child’s first years of life. The care the mother provides depends to a large extent on her knowledge and understanding of basic aspects of nutrition and healthcare. It is widely understood that a mother’s level of formal education influences her childcare practices and the health and nutrition of her family. For example, educated mothers may make earlier and more effective use of health services where they exist.

Asked about the steps they take to treat a sick child, young mothers said they first pour cold water onto the child. If he does not get better, they consult a traditional healer who prescribes treatment. If the child continues to be unwell, the mother calls for prayers from a Quranic teacher. Only if this still does not work will she consider taking the child to hospital. By then, it is often too late for the child concerned.

One father noted that “lack of education among caregivers means the caregiver does not have the knowledge on nutrition such as proper childcare and feeding practices of children”. Others said “the caregiver is not given the knowledge on nutrition such as proper childcare and feeding practices of the children” (old mothers).

Notwithstanding the need for formal education, nutrition education is a short term intervention that could have a major impact on nutrition among children in Baidoa. This need for such education among women should therefore be considered urgently.

2.5.4 Food security

Food security is related to the availability of food and household and individual access to it. It is also related to food utilization and stability, as discussed below.

Food availability

Food availability relates to the supply of food through production, distribution or exchange. The inhabitants of Baidoa are agro-pastoralists who keep livestock as well as growing food crops. Baidoa is known for its large scale sorghum production. Assessed communities indicated that the main source of sorghum is large scale farming for sales. KIIs indicated that poor agro-pastoralists typically own very small pieces of land and use poor crop and livestock production techniques, including poor quality seeds, and little or no farm equipment. This results in low crop production which is insufficient to feed a family. Alongside sorghum, maize is also grown and these form the staple diet locally. Livestock is kept on a small scale basis and the milk from cows mainly sold to enable the purchase of other food and non-food items such as cooking oil, sugar, clothes, human and animal medicines.

The NCA study established that all inhabitants of the villages visited describe themselves as small scale farmers who typically engage in subsistence farming. Based on the proportional ranking exercise, the assessed communities indicated that 70% to 80% of their food is accessed through purchases from the market, while approximately 15% to 30% is generated from own production of crops, livestock and/ or livestock products. 0% to 5% comes from humanitarian aid. These findings differ from FSNAU studies which highlight own production as the main source of food among agro-pastoralists. The assessed communities attributed these differences to notable insecurity which has reduced subsistence farming activities in the past year. The majority of the assessed communities now engage in casual labour in Baidoa town and use money earned to purchase food for their household.

Inadequate access to food

Food access is affected by the ability to produce or purchase food and food allocation. Most respondents indicated that they cannot access enough food because

3 The evil eye is believed to lead to deterioration of health, making people lose their appetite.

they lack employment opportunities. Having abandoned farming due to insecurity they typically rely on casual work on the large farms in the area. This situation is cause for concern as one would expect the sale of crop/livestock products, or of livestock, to be a significant source of income for agro-pastoralist communities. The money earned from casual work is not enough to purchase the food needed by families. Farm labour, in particular, pays poorly.

Another issue raised relating to food access was who earns the money and who controls its use. *“The head of the household is the husband. He gives the caregiver insufficient money, or sometimes nothing. Especially those fathers who chew khat use what they earn to buy khat and don’t care about nutrition”* (a father). This situation forces many caregivers, especially mothers, to look for casual labour to secure enough food for their children.

February and March are typically the driest months in Baidoa, accompanied by low income. Community members migrate for water and pasture, especially men who leave the women and children behind. Others move to IDP camps so they can access humanitarian assistance. The main reasons for migration are believed to be extreme need, exceptional debts, lack of savings and lack of employment. All of these causes can be largely attributed to low income which appears a root cause underlying many other risk factors.

“Since the majority of the people in this village are casual workers, sometimes it happens that both the mother and father leave the house to look for casual work and leave the children alone. Then the children start to play in dirty places causing diseases like diarrhoea and cholera” (a mother).

The little income caregivers get they use to buy maize, sorghum, sugar and cooking oil. Very little or none of it is used to buy proteins and vegetables. No fruit is purchased, based on the study findings. *“Because of financial problems the parents can’t afford to buy and give the baby nutritious foods”* (interview with a male circumciser). Malnutrition is often not a case of food scarcity but an inability to access available food.

Food preparation and hygiene

The quality of food is affected by how hygienically it is prepared, processed, cooked and served at household level. Nutrition and food hygiene awareness can help to ensure the necessary steps are taken at these times. A FGD with fathers in Buulo Jadid Village respondents complained that *“the women in Buulo Jadid prepare food so poorly that we [household members and children] do not enjoy eating it”* (a Quranic teacher, Buulo Jadid). This was confirmed in subsequent FGDs in Baidoa. The NCA researchers felt that lack of basic food preparation skills and hygiene in the handling of food remains a major concern and cause of malnutrition. FGD participants pleaded with the research team saying *“Our women have very poor cookery skills, they only cook Njera and boil sorghum every single day. To help us, please teach them how to cook food properly”* (fathers). Local cooking demonstrations of hygienic preparation of nutritious food could be explored in

this context. The study findings show that most households depend on grain, cereals, pulses and legumes, with sorghum and maize being the staple foods.

Food stability

Stability refers to the ability to obtain food over time. Food insecurity can be seasonal or chronic. For the agro-pastoralists, food insecurity seems to be chronic due to constant conflict, drought or floods.

2.5.5 Suboptimal YCF and care practices

Child spacing

In South Central Somalia, low rates of exclusive breastfeeding and of breastfeeding in general contribute to and are affected by a lack of birth spacing. These issues combined with early childbearing ages for girls contribute to low birth weights and affect household resources and the ability of caregivers to provide adequate care. *“Non-spacing of births, where the mother gets pregnant during the first year after birth, keeps the baby away from breastmilk”* (a mother, Bulla Jadid village).

“The caregiver stops breastfeeding the infant if she gets pregnant before the breastfeeding child reaches 6 months old. This is because it is believed that the breastfeeding child would be using the breastmilk meant for the child in the womb, thus affecting the nutrition of the child in the womb” (a father). This belief and the resulting negative practice (stopping breastfeeding very early) seem common across communities in South Central Somalia. It highlights the need for long term social and behavioural change initiatives to tackle deeply and widely held beliefs and practices that negatively impact on nutrition and health.

The NCA Study in Baidoa revealed that a large proportion of participants got pregnant between 15 and 18 years of age. *“The parents don’t respect the rights of girls because they are married at an early age and often forced to be with an old man without her consent”* (a father). As well as profound consequences for the physical and psychological well-being of such girls, these practices impact negatively on the nutrition of the families and communities concerned.

There was no reported use of contraception among couples, especially mothers, in Baidoa District. Those who practise family planning use “natural methods” where the man works away from home, or takes care of livestock away from home, for some time (two years or so) and so avoids meeting his wife.

The psycho-social situation of mothers

Poor psychosocial care of children is generally considered to result from caregivers’ workloads, inadequate family income or income management and poor maternal health and well-being. Poor psychosocial care remains an important contributory factor to inadequate nutrition and fluctuates throughout the year as a result of seasonal changes and the related workload of primary carers. The study showed that many children are left supervised by

their older siblings during the day, or left alone.

An older mother shared details of a typical mother's workload. "The daily workload includes cleaning the compound, cooking and helping her mother, fetching water, caring for the husband and caring for the children" (an older woman, Bulla Jadid). This results in most mothers being weak, tired and worried. This situation has long been exacerbated by war and conflict between clans and Al Shaabab and famine. "*Most of the mothers work hard in order to increase the income of the family, are weak and tired, they feel worried at times about conflict, war and famine*" (a mother, Bulla Jadid village). Another respondent said "*Mothers work most of the time on farms and looking after animals... Most mothers are weak and also malnourished and can't even support themselves. They are tired of the daily work of family, farm or animals and feel incapable*" (respondent Bulla Jadid). Other participants noted that until the mothers feel stronger and receive more support, their children will inevitably suffer. "*Since mothers spend most of their time on farm work and at the same time don't get enough food themselves, they tend to have little or no milk production, hence place little priority on breastfeeding their babies*" (FGD, Bulla Jadid village).

The NCA study found that most community members feel content when they have all basic needs met including food, shelter, clothes and sufficient money. Similar sentiments were also expressed by fathers. "*The mother feels happy when she has a sufficient amount of income to buy the basic needs of her family such as food, clothes particularly for her children. She feels worried and afraid when her child becomes very sick thinking that the child might die*" (a father).

Childcare practices and heavy workloads

The study showed that like elsewhere, the primary caregivers of young children in Baidoa are generally mothers. Very few mothers in Baidoa suckle their newborns immediately after birth, and typically start after 24-36 hours. In the first 24 to 36 hours of life, the study indicated that mothers typically give their babies sugary water, honey mixed with water and/or a small quantity of cow, goat or camel milk. This is consistent with SCI baseline data which estimates 31% of mothers suckle their newborns in the first 24-36 hours. Once breastfeeding starts this trend continues and almost no babies are exclusively breastfed. Once again this highlights the need for long-term social and behavioural change initiatives to tackle deeply rooted socio-cultural beliefs and practices which impact negatively on the health and nutritional status of infants, children, families and communities.

FGDs and KIs showed that it is commonly believed that mothers do not have enough breastmilk to exclusively breastfeed their infants three to eight times a day. A large proportion of respondents also give water to their infants. Mothers believe that when babies are thirsty breastmilk is not enough.

The heavy workload of mothers was also seen to contribute

to poor child care practices (stated in almost all FGDs). "*When the father does not work and the mother decides to go for casual labour in order to get something to feed her children, in her absence there is nobody who can take care of her children*" (older mother). It is clear that for malnutrition to be effectively overcome in this context, a wide range of actors need to be engaged through more integrated, multi-sectoral approaches.

Inappropriate breastfeeding and IYCF

The NCA study sought to investigate practices of initiating breastfeeding by asking when, after birth, the baby was first put to the breast. This indicator helps to understand the first contact between a mother and her child, as well as the attachment reflex between them.

The study showed that most mothers wait up to twenty-four hours before they put their baby to the breast. The main reasons given were that they did not have breastmilk immediately following birth and that they needed to rest after a long and exhausting delivery. "*Infants are given powdered sorghum mixed with water in the first hour [after birth]*" (an older mother). "*Sugar or honey mixed with water is given to the infant. Nothing else is given to the infant until 24 hours after birth when they give breast milk, the mother has no breast milk at this time*" (an older mother).

Another respondent said "*Sometimes the breast would be given after three days because mothers believe the baby cannot digest colostrum*" (respondent, Bulla Jadid village). In trying to explain why young mothers don't generally give breastmilk to their infants, it was stated "*an old mother may give the breast while the new mother can't afford to, because her breast is hard and she may feel pain*" (an older mother, Bulla Jadid village).

Similar findings which negatively impact on breastfeeding and IYCF were found across all four villages studied in Bay Region. Young mothers in Baidoa commonly referred to not having enough breast milk to feed their infants properly. It appears that mothers in this area lack even basic knowledge about the critical significance of breastfeeding and optimal IYCF practices to the health of their infants, children and families. They also lack knowledge about effective ways of initiating breastfeeding for newborns. As above, much work remains to be done on ways of raising awareness levels to strengthen related knowledge and practice, amongst key stakeholders including mothers, fathers, grandmothers, community leaders and others. At the same time, wider efforts are urgently required to help make living environments more conducive to improved (optimal) IYCF across South Central Somalia.

In isolated instances breastfeeding is not being done at all. Some associated the practice with losing their children. "*Whenever I give birth and breastfeed the child dies. Three of my children died but the fourth child I didn't breastfeed and they survived and for the rest of the children I did the*

same and they all survived' (A mother with malnourished children). Clearly such dangerous and factually inaccurate beliefs need addressing in sensitive and appropriate ways. They are not helped by many factors, including the lack of formal education in the communities studied.

Poor complementary feeding

The transition from exclusive breastfeeding to complementary feeding is a crucial period for any infant as inappropriate feeding is a common cause of malnutrition. Global WHO recommendations advise initiating complementary feeding at around 6 months of age, when breastmilk is no longer sufficient to maintain optimal infant growth. Caregivers need to give special attention to balanced meals and meal frequency and better understand how to feed their infants appropriate diets.

The NCA study found that introducing complementary foods to children in communities studied generally starts much earlier than the recommended age. *"It is common practice to introduce solid foods before 6 months of age and give the infants sugar mixed with water within the first hour after birth, believing the mother's breast does not have milk"* (a father). Another father said *"When the baby reaches 3 months, the mother introduces solid foods to her baby."*

Bottle feeding is very common among caregivers in Baidoa and the cleanliness of bottles used remains a key challenge, as elsewhere where basic facilities are absent and hygiene is poor. Bottle feeding contributes to diseases like diarrhoea among infants and children in the communities studied. *"The caregiver introduces solid food before six months of age and also bottle feeding with bottles which are not properly cleaned by the caregiver"* (a community leader).

Furthermore, across the four villages studied the kinds of complementary foods fed to children do not represent a balanced diet. *"The parents can only get sorghum and maize which is not complemented with protein, fruits and vegetables"* (a female circumciser, Bulla Jadid village). Animal products are sold to raise money to purchase other foods like sugar and fats. Research is needed to explore this issue further in particular contexts, including the availability of healthy foods to ensure a balanced diet, accessibility to them and other factors which influence their use or non-use.

2.5.6 Caregivers' heavy workloads

As reported above, caregivers' heavy workloads are an important underlying factor relating to childcare and ultimately poor nutrition. Given the challenging realities of most mothers' lives in Baidoa agro-pastoral communities, minimal time and chronic tiredness undermine optimal childcare. As a result, child health and psychosocial needs are negatively affected, alongside dietary needs.

Low income is the main reason women cite for their short rest periods after childbirth. Mothers typically have to

go back to their work in the fields soon after giving birth to avoid gaps in family income. As mothers are usually tasked with water collection and other household chores, they quickly have to resume these daily activities and are unable to take proper care of their children. Daily schedules show that mothers wake up early to prepare breakfast, clean the house, collect water and then go to the field to work for most of the day. Once home, they have to wash clothes and collect firewood. *"They [women] do most of the household chores and can't find enough food to recover their energy"* (a father).

Heavy workloads, often away from the family base, adversely affect breastfeeding. This was confirmed by all FGDs conducted. *"Because mothers engage in casual labour they put their infant to the breast [only] 2 to 3 times daily"* (an older mother, Bulla Jadid village).

While reducing the workloads of primary carers in the community (primarily mothers) is not feasible in the short term, the issue of strengthening sources of support accessible to primary caregivers and their children is one that demands further consideration. Without such efforts the health, nutritional status and general well-being of children is unlikely to improve significantly.

2.5.7 Poor health seeking behaviour

Poor health seeking behaviour is one of the main underlying causes of disease which heightens vulnerability to malnutrition. The study showed that mothers do not typically consult anyone during the early stages of their pregnancies. However, at later stages they consult their mothers and traditional healers and herbalists. Rarely do they go for antenatal care (ANC) or consult health professionals. Most women explained that no consultations were required during their pregnancies as they were not feeling sick. This demonstrates an alarming lack of awareness on the importance of antenatal care. The usual reason given for not accessing services is that facilities are too far away.

Many community members cannot access health facilities because of the distance and high transport costs. *"Mothers can't even afford the transport cost since the nearest health facility is about 10 km away from the village"* (a mother). Another said *"some pregnant women don't have enough income, this is especially the case when the husband dies and she is the breadwinner of the family"* (a mother).

The study findings also show a lack of knowledge about potentially accessible health services, with caregivers claiming not to know the locations of relatively close health and nutrition facilities. A large proportion believe that public health services are expensive. One mother noted that *"Mothers are ignorant about the importance of visiting the health and nutrition facilities"*. Reasons shared for not accessing health facilities include distance, cost of transport, the complexity of reaching services and waiting times experienced once at the centre. For these and other reasons, consultations with TBAs are preferred. *"Older women encourage mothers to stay at home during labour and to give birth at home with a TBA"* (a father). Another

old woman said “*they can’t even afford the transport cost [to health facilities] since the nearest health facility is about 10 km away from the village*”. Another factor contributing to non-use of available services is limited knowledge about the importance of visiting health facilities. In general, community members don’t believe in health facilities but opt instead and for traditional medicine. “*They don’t believe in health centres, tablets and syrups, only in traditional herbalists*” (mothers).

On the other hand, immunization services are viewed more favourably. Immunization coverage is a good proxy indicator for access to health services. The NCA found that immunization, currently carried out by mobile teams, is viewed positively by the communities studied who see it as a good way to protect their children’s health. This is one potential avenue for raising awareness on nutrition and IYCF which warrants further exploration.

2.5.8 Some dominant socio-cultural beliefs

Socio-cultural beliefs influencing health and nutrition behaviour, including critical breastfeeding attitudes and practice, were explored and triangulated with existing literature.

The study findings reflected that the majority of caregivers first consult traditional healers in case of illnesses experienced by themselves or their children. Spiritual leaders are then usually called to recite the Quran, as they believe that God can intervene. In general, caregivers and children only go to health facilities as a last resort and when they are very sick. If the above are typical healthcare seeking routes then traditional healers, TBAs and spiritual and religious leaders could be an important asset and potential avenue for influencing health seeking behaviour. How such influential community persons could be engaged with constructively to help raise awareness about health and nutrition and to help strengthen local attitudes and practices demands further attention.

Traditionally, pregnant women are not allowed food containing salt, lemon or sugar because they are believed to cause high blood pressure, anaemia and oedema. These and other dominant cultural beliefs affect the nutritional status of mothers. The study noted the significant impact of tradition on food consumed by particular groups. For example, “*for pregnant women lamb/mutton and honey are not allowed because they can cause premature birth or miscarriage. While increased intake of eggs, fruits and vegetables causes the foetus to overgrow in the womb, thus making delivery difficult. Chill pepper is not allowed because it can cause the child to be born without hair on the head*” (mother of malnourished child).

In the communities studied, most mothers believe in using only one breast while they breastfeed. Some communities believe that it is a bad omen to breastfeed using both breasts. It is also common not to put the new-born to the breast for up to 36 hours after giving birth.

Many traditional remedies are commonly used. For

example, when a child has diarrhoea, teeth are normally removed by a traditional healer known as *ikow*. *Sanshub* is also performed which means pouring ghee into the nose of the child concerned. When children are sick, these communities typically tie a root (*tiiro/erjeeq*) on the neck of the baby for the child to be cured. Health and nutrition workers need to distinguish between harmful traditional practices and those whose value might appear questionable to educated outsiders, but which do no harm. Factors which perpetuate dominant, questionable beliefs and practices need further exploration to find constructive ways forward which are not seen as threatening or judgemental by communities concerned. This will likely necessitate working closely with, and gaining legitimacy among, local religious and community leaders and persons of influence, like grandmothers.

FGM is another dominant socio-cultural practise among these communities which adversely affects health and nutritional status, especially of young girls and those forced to marry at early ages. FGM is widely known to have profoundly negative physical, psychological, emotional and social consequences for those concerned. Excessive bleeding often fuels anaemia and it inevitably makes for extremely painful married lives and childbirth. The impact of FGM on nutritional status is less known and documented. This is an issue which warrants further attention and advocacy including efforts to liaise more closely with a wider range of key actors not generally engaged in nutrition initiatives such as those in social protection.

The non-spacing of child births is another dominant practice to be tackled, in the absence of contraceptives. “*A mother stops breast feeding immediately she realises that she is pregnant, even when the child is below one year*” (a father). This results in frequent cycles of pregnancy and mothers becoming pregnant too soon, before their bodies have recovered adequately from previous births and before they have breastfed their infants for long enough.

2.5.9 Poor dietary diversity

Study findings show that most households depend on grain, cereals, pulses and legumes, the basis of a vegetarian diet. Sorghum is their main food. The main pathways identified to poor dietary diversity are seasonality and market unavailability. Dominant socio-cultural beliefs also affect dietary diversity for particular groups in the community.

2.5.10 Poor environmental health

It is well known that poor water and sanitation and weak hygiene practices negatively impact on nutrition, particularly for infants and children who are exposed in unhealthy environments. Exposure to pathogen elements causes sickness including diarrheal diseases, increasing a child’s vulnerability in general.

In Baidoa, homestead environments were reported to be unhealthy as a result of babies’ faeces not being properly disposed of and the lack of latrines. Most mothers dispose of babies’ faeces outside the compound in a nearby bush

or in a latrine if they can access one.

Although few community members appear to use soap, which they cannot afford to buy, most caregivers wash their hands before and after eating food and cleaning their babies. Some caregivers use ash and sand, while most use only water to wash their hands.

Use of unclean water, especially by children, was also reported in Baidoa. Children drink unsafe water which negatively impacts on their health and nutritional status. *“The children drink unclean water and they are not taught how to wash their hands properly”. Another said “when the children drink unclean water they are affected by waterborne diseases”* (an older mother).

The lack of appropriate WASH facilities is clearly a problem, alongside inadequate awareness and knowledge about the risks of poor hygiene and of drinking contaminated water.

2.5.11 Inadequate humanitarian assistance

Community members from the four villages studied complained of not being considered for humanitarian assistance by either local or international organisations. They assume they are not receiving support because they practise farming and pastoralism. *“We didn’t [recently] get any humanitarian assistance nor health and nutrition support, we received such support 3 years ago”* (a mother of a malnourished child). Another mother complained that *“the residents of this village are practicing pastoralism and farming. Due to this they do not receive any sort of humanitarian assistance”*. Community members from all villages studied appealed for assistance with food and agricultural materials to support their farming.

2.5.12 Conflict and war

The study revealed that Bay region and Baidoa in particular remain very insecure with ongoing war and conflict between clans, mainly over land. Baidoa is believed to be a main Al Shabaab base in Somalia, with negative consequences for local families. *“If fighting begins between Al Shabaab and the government it causes destruction of property and loss of life”* (a father, Bulla Jadid village). *“Conflict and war cause families to be displaced, resulting in lack of food, water and medicine”* (a father, Boonky village).

2.5.13 Drought

In Baidoa drought is a recurring phenomenon leading to extremely dry land and low agricultural production which fuels a general lack of food and poor nutrition. *“The people of this village are agro-pastoralists and sometimes they don’t receive rain as required, or face unreliable rainfall which causes the animals and crops to die, thus causing persistent malnutrition”*. *“When there is drought animals might die, this means no milk or meat and food insecurity which can lead to malnutrition”* (respondents from Boonky village). *“Low rainfall leads to low yield from the farms and decreases the number of animals, which causes the family to have a low income”* (a father, Salama Idaale village).

To cope with the situation, agro-pastoralists rely on humanitarian aid for food supplies and make use of wild fruits. See Table 3, seasonal factors influencing malnutrition, which indicates that the harvesting of wild fruits is high for most months of the year, including January to March, June to September and November and December. This corresponds to the stated hunger season which is high in May and June, August and September, November and December and is medium from January to March. Reliance on humanitarian aid and wild fruits are distress coping strategies which cannot be relied upon to provide optimal nutritional requirements.

2.5.14 Low agricultural produce

Poor agricultural knowledge and challenging physical conditions are known to contribute to limited food availability and income levels. The study revealed that much produce from local farms is sold to buy other food and support daily living expenses. It was also reported that husbands sometimes sell everything and use the money for khat and smoking.

The study found that continually declining agricultural produce threatens the nutritional status of Baidoa’s communities and of children in particular. *“The harvest and production in the villages are sometimes good and promising and sometimes poor, leading to malnutrition in the family”* (a mother, Bulla Jadid village). *“Cultivation of the farms is getting bad day after day, if we get good rain there is floods and insects and other seasons there is drought and famine”* (a father, Bulla Jadid village). Some respondents complained of low agricultural produce being caused by laziness among men or husbands who do not want to work and instead migrate to IDP camps for assistance. Respondents were keen to be assisted with improved seeds, basic farm equipment, veterinary services and legitimate livestock drugs.



3. Discussion and Conclusions

Core drivers undermining agro-pastoralist livelihoods in Baidoa and fuelling acute malnutrition include insecurity and drought in the context of dependence on rain-fed agriculture, alongside inadequate humanitarian support. In Baidoa as elsewhere, local knowledge about their seasonal calendar remains important and links with community preparedness for upcoming challenges.

Inadequate knowledge about nutrition is a key factor identified as contributing to acute malnutrition. It was very clear from the FGDs and KIs that most caregivers lack basic knowledge on nutrient rich foods, how to prepare food for their infants and children and the number of meals an infant and child is supposed to eat. Other studies have also highlighted these knowledge gaps (see FSNAU, 2009).

The NCA study found that insufficient income drives caregivers to look for casual labour to increase their purchasing power. Women were found to be most affected, as most agricultural labour is carried out by women, including women with infants and young children. Consequently, they are forced to leave their children either unattended or with siblings who generally do not care for them well. The study highlighted a lack of responsibility displayed by many men and fathers, who provide little income for their families and at the same time use household income to purchase khat and smoke when away from home. One researcher found examples of men refusing to work and instead opting to migrate to IDP camps to receive humanitarian assistance. Findings from other studies on Baidoa agro-pastoralist communities (Sage, 2002 and FSNAU, 2009) similarly note that whilst men are traditionally seen as the head of the family, they typically play a minimal role in ensuring their children's food needs are met. This burden generally falls on the mothers.

The NCA study confirmed that neither caregivers nor children in the villages studied have ever attended school. This was due to the distance to schools and it being unsafe to travel such distances. Children of school-going age are left to care for their younger siblings or to undertake casual labour with their parents.

Poor household food security is a key factor contributing to acute malnutrition among agro-pastoralists in Baidoa, despite the region being known as the food basket of Somalia. This concurs with the study done by FSNAU

(2014) which pointed out that the main reason for food insecurity is conflict and related access constraints. These factors also challenge food security and nutrition needs assessments and the delivery of humanitarian aid. Other key reasons for poor food security include low purchasing power, lack of land and livestock and lack of basic knowledge.

Poor IYCF practices are also a key contributory factor to acute malnutrition. This includes poor child spacing practices, weak psycho-social situations of many mothers, poor child care practices, inappropriate breastfeeding and poor complementary feeding practices. Added to these are caregivers' heavy workloads, poor health seeking behaviour and the impact of some dominant socio-cultural beliefs that adversely affect health and nutrition. Poor dietary diversity characterises most households, with infants and children typically fed only sorghum in the absence of appropriate complementary foods.

Baidoa agro-pastoralist communities generally experience poor environmental health conditions including unclean water, poor sanitation and hygiene. The main water sources include communal water catchments, boreholes, a few springs and shallow wells (FSNAU 2009). Poor sanitation is evident from the way caregivers dispose of baby faeces, throwing it into nearby bushes. Children drink unclean water and do not wash their hands properly. Strengthening the WASH facilities and practices of these communities is an urgent priority. Low agricultural production is another key contributor to acute malnutrition, influenced by seasons and changes in climate, lack of basic farming knowledge, lack of tools and materials including fertilizers.

All of the above show that a wide range of measures are needed to effectively tackle acute malnutrition among Baidoa's agro-pastoral communities. Multi-sectoral approaches are required at different levels and key actors need to work together to ensure complementarity. This includes the areas of WASH, health and nutrition, access to basic services, education, food security, income generation and women's empowerment. To change dominant socio-cultural beliefs and practices which adversely affect nutrition and health, including FGM, long term social and behavioural change initiatives need to be implemented. The study findings highlight the importance of empowering women to improve their

income earning potential and ensure greater access to knowledge and support. The issue of disengaged fathers warrants further attention and appropriate action. Significant progress on the issues above is needed to address levels of acute malnutrition amongst Baidoa's agro-pastoralist communities.

Conclusions

In conclusion, in addition to the above challenges commonly experienced, the historical timeline of events generated by communities studied highlights a number of issues that have greatly affected agro-pastoralist communities in Baidoa. Household and community recovery from long-standing historical injustices, conflict, war and displacement have been very slow or non-existent. Although local understanding of the typical seasonal calendar of events is crucial to enabling effective community preparedness and response it is inevitably undermined by the range of challenges discussed above.

Key Findings

1. Lack of basic knowledge on nutrition and balanced diets resulting in poor dietary diversity.
2. Low agricultural productivity leading to poor household food security, largely as a result of prolonged, extreme insecurity which has limited the typical size of farms cultivated and access to farming land.
3. Shift to casual work among agro-pastoral communities as a result of prolonged and extreme insecurity in most villages surrounding Baidoa town.
4. Men chewing khat is significant in the communities studied. It impacts on family nutritional status, both because family farm produce is often sold by these fathers to buy khat (rather than consumed by the family) and because the fathers who chew khat regularly do not typically contribute to family income.
5. Suboptimal IYCF and care practices:
 - Inadequate child spacing (generally 1 child per year) which negatively affects breastfeeding (as breastfeeding stops when the mother becomes pregnant) and the care of siblings.
 - The weak psycho-social situation of many mothers who commonly complain of exhaustion and not having the time and energy to care for their children well, especially when fathers are absent (physically or socially).
6. Poor health-seeking behaviour. Families first approach traditional healers and religious leaders, which can result in dangerous delays in approaching health centres.
7. Dominant negative social-cultural beliefs and practices. These include food taboos for pregnant women like not being able to eat mutton and honey due to fear of miscarriage and fears that eggs, fruits and vegetables will cause the foetus to overgrow in the womb complicating delivery.
8. Pregnant women under-eating due to the fear of having to give birth to a big baby and related ruptures, especially in the aftermath of FGM.
9. Insufficient income - communities are being pushed into a cash economy at a time of rampant insecurity which negatively impacts on household food production and lessens self-sufficiency.
10. Poor environmental health conditions, in particular inadequate safe drinking water and limited access to latrines.
11. Low levels of education. None of the caregivers interviewed in the NCA research had attended formal school, though the majority of them had attended Madras for religious teachings.
12. Lack of adequate humanitarian assistance. In this context food rations, farm inputs (seeds and tools) and veterinary services were mentioned.



4. Recommendations

Key Recommendations

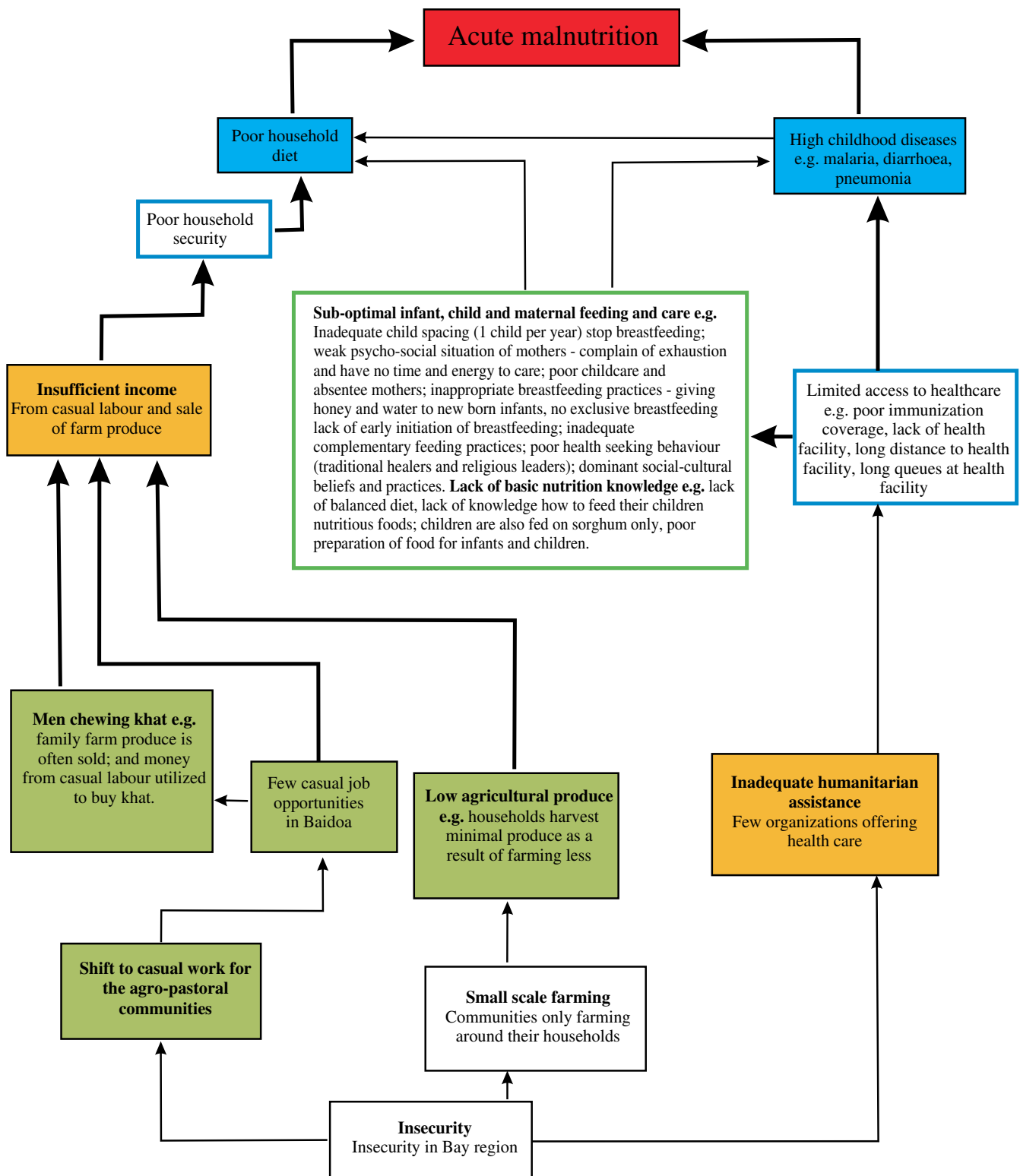
1. Enhance nutrition and health promotion, targeting mothers and other caregivers with messages on the importance of exclusive breastfeeding, improved child-feeding practices, appropriate health-seeking behaviour and improved hygiene and sanitation practices.
2. Establish appropriate long-term behavioural and social change communication programmes to support the above.
3. Work closely with CHWs, TBAs and others regularly consulted by local communities when official health services remain largely inaccessible. Upgrade their knowledge, skills and referral mechanisms (to official services) as feasible.
4. Explore opportunities to support local communities with farming resources such as quality seeds, basic farm tools and training on appropriate, low-input, sustainable agricultural practices.
5. Improve availability of and access to veterinary services and appropriate livestock drugs.
6. Explore opportunities to strengthen father engagement in IYCF and other programmes linked to the health of their families.
7. To support the above, explore opportunities to effectively engage community and religious leaders in IYCF promotion efforts and encourage them to use innovative approaches.
8. Explore local opportunities to strengthen women's support networks and establish effective mentorship schemes.
9. Explore the potential to offer mobile health, nutrition and livestock health services to Dollow pastoralists.

Recommendations for Further Research

1. Further research is required to establish how best to work with men to help improve the nutritional status of the community, especially that of infants and children.
2. Research the possibility of engaging religious and other leaders in the promotion of nutrition awareness in their communities.
3. Conduct a study on the impact of education and basic nutrition awareness on the nutritional status of children and families.
4. Conduct further research into the impact of fathers chewing khat regularly on family nutritional status.

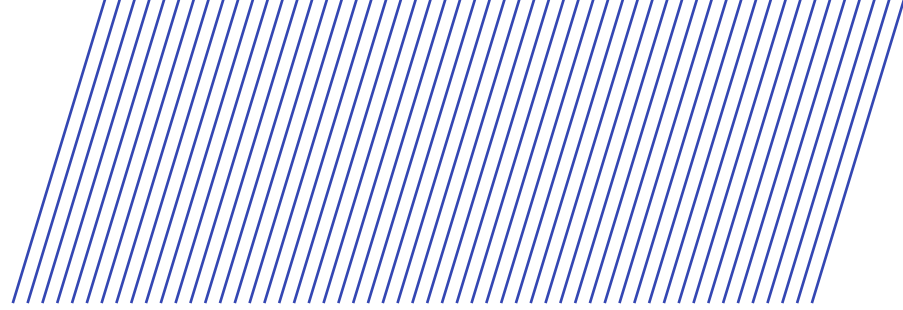
5. Causal Pathway - Baidoa

Agro-Pastoral Livelihood Zone Communities



Findings, Key Recommendations,
Challenges Experienced, NCA
Study Limitations, Lessons
Learned, Conclusion





NCA Study Findings, Recommendations, Learning and Conclusions

NCA Study Summary Findings
Key Study Recommendations
Recommendations for Further Research
Challenges Experienced
NCA Study Limitations
Lessons Learned
Conclusion

Key References and List of Appendices



Summary Findings

The NCA study has confirmed the negative impact that prolonged insecurity in much of South Central Somalia has on nutritional status. It has led to significant loss of life and livelihoods including land, crops and livestock for rural communities. It has adversely impacted on casual labor opportunities and business investments among Mogadishu urban and IDP settlements, and had an even worse impact in other areas studied. With the exception of the Dollow IDPs, Mogadishu IDPs and Urban communities studied, humanitarian services across the NCA study areas remain significantly constrained by insecurity and limited access, with organizations having to base their operations in more secure, relatively accessible areas. According to NCA study participants, this widely limits the access of many communities to even basic humanitarian services including health, nutrition, WASH and resilience programmes, as well as to income generation opportunities. At the same time, perceptions of the chance to receive at least some health care, income generation support and formal education, remain pull factors for Mogadishu and Dollow IDPs. Apart from their overt physical losses, IDP communities studied live in constant fear of further losses.

Climatic factors, mainly recurrent drought and floods, have also contributed to the loss of livestock, crop and business undertakings across much of South Central Somalia, which further challenges community resilience in areas studied. Based on the NCA study findings, in Beletweyne riverine communities for example, about 25% of people have been displaced from their original land and are currently hosted by others. In Mogadishu and Dollow, those displaced following the 2011 famine and drought, and others who have migrated since, continue to depend on host families or have settled in IDP camps.

Seasonal factors fuel regular cycles of the “hungry season”, reflected in peaks in incidence of Acute Watery Diarrhoea (AWD) and Acute Respiratory Tract Infections (ARI). These directly affect nutrition status across all livelihoods. On the other hand, malaria peaks in the wet season and constitutes the main cause of under-five

deaths at Stabilization Centers in some areas. In addition, in Mogadishu the seasonal “sea port closure” (July to September), when ships are unable to dock due to strong monsoon winds, reduces casual job opportunities which at other times constitute a lifeline for some urban poor and IDP families. Sea port closure also impacts on the price of imported food and commodities across the six livelihoods, further limiting access by poor households and increasing their vulnerability to malnutrition.

Another common feature of communities studied is a dire lack of formal education (no schools in most locations) and the consequent alarming levels of illiteracy, combined with a limited skills base and inadequate awareness of issues critical to health and nutrition. Some dominant socio-cultural beliefs and practices continue to guide decision making and practice, including premature marriage for many girls (typically from 13 to 16 years old in rural livelihood communities and from 15 to 17 years old in most urban livelihoods). Given the lack of child spacing, pre-mature childbirth and child rearing pose serious challenges to the health, nutrition and related psychological status of girls in particular, and of their babies and young children. Other socio-cultural practices which negatively impact on nutrition include Female Genital Mutilation¹ as well as beliefs impacting on the diet of pregnant women and infants in particular². All these factors contribute to traumatic deliveries, heightened susceptibility to weakness, illnesses and psychological problems amongst girls and women, who are often least able to access humanitarian support. Violence and rape against women is a major concern in Mogadishu IDP settlements in particular, resulting in girls opting for open defecation rather than visiting latrines where they are more vulnerable to attack in the dark.

Poor Infant and Young Child Feeding (IYCF) and care practices, combined with weak hygiene and sanitation in the communities studied and the widespread lack of even basic WASH facilities, predispose infants and young children in particular to dangerous cycles of vulnerability, disease and malnutrition. In many instances, the research confirmed that dominant open

¹ This directly impacts on the nutritional status and well-being of pregnant girls as FGM magnifies their fears of having to give birth to large babies and of tearing in the process. Consequently many pregnant girls, across communities studied in the NCA, do not eat adequately while they are expecting. This issue was openly shared with the research teams in many of the communities studied.

² For example widespread dominant beliefs which mitigate against optimal IYCF, including that mothers do not have enough breastmilk for their new-borns who need honey or sugar mixed with water as well as breastmilk, and that women should stop breastfeeding as soon as they become pregnant again (often within a few months of their last childbirth).

defecation systems continue to contaminate household exteriors and water points, contributing to a poor public health environment. Many mothers in poor communities are forced to seek what little, irregular income they can to feed their children. This is especially true of young mothers forcefully married off by their families at very young ages, who often find themselves divorced and fully responsible for several children within a few years. These demands on their time make optimal IYCF notably challenging. Most NCA communities reported minimal access to basic health and nutrition services, making optimal IYCF yet more challenging while awareness levels remain low and formal education almost non-existent.

At the same time, across all NCA locations and communities, access to income is significantly linked with higher household nutritional status.

While the above factors which influence malnutrition cut across the six population groups studied, some livelihood specific examples follow. In Mogadishu IDP and urban communities, the exit of many humanitarian agencies from Mogadishu since 2013 has had a significant impact, reportedly due both to lost casual labour opportunities and the lack of humanitarian services to fill gaps in basic needs, which these communities had come to depend on. Multi-faceted discrimination, widely faced by minority communities in Mogadishu, has a double blow by hampering both access to basic services and income generation opportunities.

In Beletweyne, lack of access to ample crop harvests and food stocks remain core factors underpinning acute malnutrition. Own crop production provides over 50% of household food, while sales of food stock provide over 50% of income. Challenges related to crop production, i.e. limited access to land, seeds, basic equipment and appropriate farming techniques, continue to affect access to food and income, not helped by inadequate access to basic health care, clean water and education.

In Dollow pastoralist communities, poor health status and challenges ensuring the security of livestock remain key. Similarly, among Baidoa agro-pastoralists, low agricultural production and prolonged insecurity remain core drivers of malnutrition.

Key Similarities and Differences across Studies

The study has identified many factors that significantly impact on nutritional status across most or all communities researched, as well as some key differences. The most significant similarities and differences are outlined below.

Similarities between most or all communities studied in the NCA

1. Albeit to different degrees, all communities live in contexts of insecurity which continue to fuel multiple vulnerabilities, displacements and population flux.
2. All experience the impact of select, dominant socio-cultural beliefs and practices on nutritional status, particularly that of infants and children. These widely include girls' early marriage ages and premature pregnancies, IYCF-related challenges (minimal exclusive breastfeeding, inadequate and premature complementary feeding, weak child care practices etc.) and lack of child spacing.
3. Political minorities across communities commonly face widespread discrimination which affects access to all humanitarian services and to income generation opportunities. They also experience limited social support and commonly express feelings of hopelessness.
4. All communities express challenges in accessing basic humanitarian services (although this was slightly better in Mogadishu Urban). In general, services are rarely located locally and require considerable time and/or money (transport) to access. Even basic water, sanitation, health and nutrition facilities remain largely absent according to study respondents.
5. All experience poor environmental health conditions, with limited access to clean water and latrines.
6. All experience limited household food security, although the factors that influence this vary across livelihood groups.
7. Rural communities commonly express lack of access to support for their livestock and/ or farming ventures, including to veterinary services and drugs.
8. Access to income is important across the assessed groups. It was the most significant factor captured in the NCA wealth ranking exercises and mitigates against food security challenges and acute malnutrition in all communities studied.
9. Minority clan members are most affected by acute malnutrition. Although vulnerable groups include poor families from other clans, their precarious

nutrition situation is somewhat mitigated through greater social support from their relatives. This is not true of minority clan members.

10. The lives of girls and women remain notably challenging across all NCA communities and livelihood zones, with poor psycho-social care seen to be the norm. Early marriages and child-bearing, the consequences of FGM, rising divorce rates and inadequate support in general fuel this situation.
11. Consuming adequate fruit and vegetables remains rare across all livelihood groups.

Key differences between communities studied

1. Mogadishu IDPs who face gaps and challenges in accessing humanitarian services and do not have other livelihoods, are particularly vulnerable to malnutrition.
2. Beletweyne communities seek crop production assistance, livestock stocking and humanitarian assistance.
3. In urban areas (and, increasingly, their outskirts as witnessed among Dollow pastoralists and Baidoa agro-pastoralists), income generation and job creation opportunities, as well as educational status, remain important factors.
4. Mogadishu IDPs express a strong need for humanitarian assistance in addition to income.
5. While poor dietary diversity is found across all livelihoods, the form this takes inevitably differs. For example, pastoralist communities depend mostly on milk and meat while Baidoa agro-pastoralist and Dollow IDP communities depend mainly on sorghum, maize, pasta or rice.
6. Pastoralist communities request assistance with water, veterinary care and drugs for their livestock.
7. Weak environmental health (water, sanitation and hygiene) is notably evident among IDPs in Dollow and Mogadishu. They strongly expressed their need

for further humanitarian assistance, as well as for opportunities to earn or supplement their income.

8. Baidoa Agro-pastoralists need more empowerment in terms of basic knowledge on nutrition (a good diet, balanced diet, food preparation, various types of nutritious foods). They also need more of crop production assistance as well in terms of agricultural inputs and animal health such as animal drugs.

Somalis from minority clans remain vulnerable for two main reasons. In a country where the clan system is effectively the governing system and clan loyalty surpasses all other, it is difficult for minority, marginalized clan members to have a voice, especially when they are not considered a “full” clan. Hence they lack political representation and are not considered eligible for senior government posts. Due to the widespread lack of education and skills base in minority community members, few are recruited into formal labour, including by humanitarian agencies, which could provide an alternative (albeit not ideal) route to secure some representation and voice. To date, however, Somali minority clan members lack a voice both politically and economically, which fuels vulnerability at every level.

This vulnerability is confirmed by their relatively poor health and nutrition status, only worsened by dominant socio-cultural beliefs and practices that adversely impact on nutrition and remain dominant to date. Whereas all research subjects spoke of the dangers and consequences of practices like FGM, early marriage for girls, the heavy workload of women and their weak psycho-socio status, these communities seemed able to do less to alleviate their problems.

Unlike in other communities studied, the social support system amongst Somali minority clan community members remains limited, with extreme poverty being a major influencing factor. Networking is less effective than amongst members of other clans, mainly due to extreme needs which mean these families are forced to find their own ways of surviving. This fuels a vicious circle of on-going unmet need and vulnerability to shocks and acute malnutrition, putting community members in a long-term precarious position which demands urgent attention.



Key Study Recommendations

1. Strengthen the livelihood security of these population groups: Provide agricultural farming support to increase field cultivation and harvests in Beletweyne riverine livelihood zone and Baidoa agro-pastoralists; Ensure livestock health care among Dollow pastoralists and Baidoa agro-pastoralists; strengthen entrepreneurial skills and income generation opportunities among Mogadishu communities, especially IDPs. Consider the impact of seasonal factors in relation to the timing of programmes.
2. Strengthen links with Resilience and Income Generation programmes in particular, to foster increased access to income and strengthened community resilience. Efforts need to prioritize the poor and most vulnerable community members, whatever their clan.
3. Increase access to basic health and nutrition services, particularly for girls, women, infants and children.
4. Address urgent gaps in the provision of safe water, hygiene and sanitation. Address practices of open defecation, inadequate hand-washing, weak personal and environmental hygiene, through the provision of basic WASH facilities and related social and behavioural change initiatives.
5. Encourage and support the formation of social support groups for members to share information and address critical issues, e.g. Mother Support Groups and Father Support Groups for IYCF. Provide support, skills and counseling training to these groups as feasible.
6. Enhance the security and protection of women and children. Work closely with the Protection Cluster, other key actors and local leaders to help ensure greater protection for girls, women and children and to address the severe psycho-social issues that adversely affect girls and women in particular. Violence against women documented in the NCA includes the negative impact on nutrition faced by FGM survivors, including fears of delivering large babies, as well as by young girls who are forced to marry too young and who consequently suffer from premature child bearing and child rearing, which heightens their vulnerability to anaemia, disease and malnutrition.
7. Consider ways to effectively monitor and manage humanitarian efforts to ensure targeting of the most vulnerable groups, so those most in need are reached and impact is strengthened. This need was highlighted by reports of wide discrimination against particular groups (clans) within communities studied, alongside specific favouritism.
8. Long-term social and behavioural change programmes are needed to raise awareness and catalyze change on some dominant socio-cultural beliefs and practices that negatively affect the health and nutritional status of girls, women, infants and children in particular. These include widespread FGM, early/ premature and forced marriage, lack of child spacing and the belief that girls don't need to be educated.
9. The NCA findings highlight the urgent need to advocate and foster more holistic and integrated health, nutrition, WASH and other programmes. Stand-alone initiatives have long been known to have a limited impact on acute malnutrition in Somalia. Nutrition actors are encouraged to work more closely with other sectors and Clusters, to strengthen mutual referrals and foster more cross-sectoral approaches better placed to meet the multiple needs of vulnerable communities and to prevent acute malnutrition.
10. Increase access to formal education among vulnerable groups within communities, girls in particular.
11. Consider complementary ways of raising awareness on basic health, nutrition and WASH issues, through immediate and longer-term social and behavioural change communication initiatives.
12. Actively seek to identify and build on local strengths and assets, human resources in particular, in all related programming. Somali communities are known internationally for their exceptional entrepreneurial skills and their strong social support networks. These and other community strengths could help catalyze and sustain urgently needed change.

13. Strengthen capacity to undertake in-depth, qualitative, action-oriented research, at all levels. The notable lack of qualitative researchers and of social and behavioural change experts in the nutrition field largely accounts for the dearth of such research and evidence, which are particularly relevant to prevention and IYCF initiatives that remain urgently needed across South Central Somalia. Lessons could be learned from Community Led Total Sanitation (CLTS) initiatives currently gaining momentum in WASH programmes.
14. Explore opportunities to strengthen access to income generation activities for the poor. Vocational skills training opportunities, as well as long term efforts to strengthen access to formal education, could facilitate the process.
15. Strengthen links with the Somali government where they are present, without which the impact of civil society and international actors will remain limited. Efforts to strengthen the health and nutrition of Somali communities need to form a core part of wider multi- and bilateral agency initiatives (including the UN), to support the Somali government to improve the lives of Somali communities.
16. In the nutrition field, communication for social and behavioural change experts should be brought in to complement technical experts and help catalyze and sustain much needed change in long and deeply held negative socio-cultural beliefs and norms. As elsewhere in the world this cannot happen in the short term. It demands the active engagement of a wider range of professionals, field staff, managers and policy makers, with concrete experience of related programming. Nutrition team members need to be widened in scope in the above ways.
17. Put in place mechanisms to strengthen and widen the nutrition workforce in Somalia, as per above suggestion. In the absence of this critical aspects of nutrition, especially those relating to IYCF which is in turn impacted on by significant gender discrimination which affects mothers (young mothers in particular³), are unlikely to improve significantly. This touches on issues of human rights and social protection and cuts across sectors, with significant implications for key actors across South Central Somalia.

³ Which the NCA showed to be of frightening proportion in the communities researched



Recommendations for Further Research

Specific recommendations have been included at the end of each specific NCA Report (Sections II to VII). Below we outline those stemming from the study as a whole.

1. Ways of strengthening monitoring, reporting and the cross-checking of data at field levels, including through appropriate Third Party Monitor systems, as feasible.
2. Research into factors that would facilitate and support urgently needed change in select socio-cultural norms that adversely affect the health and nutrition of Somali communities and of girls, women and children in particular.
3. Ways in which key actors in fields of Nutrition, Health, WASH, Resilience, Social Protection, Food Security and Livelihoods can strengthen their collaboration and coordination in South Central Somalia contexts. In particular, to ensure they work to complement each other and, collectively have a greater positive impact on the lives of vulnerable Somali communities.
4. Research to consider potential training, skills support and financial support opportunities for marginalized communities in SCZ, who remain among the poorest Somali communities.
5. To study the relative impact of (i) the formal education of girls and mothers, and (ii) specific nutrition and health education and knowledge, on children's nutrition in SC Somalia locations, especially in contexts where families lack sufficient food (see for example Bhutta et al, 2008 & Imdad et al, 2011).
6. Allegations of human trafficking of Mogadishu IDPs, in order to seize their farms in their absence, warrant further research.
7. Overwhelmingly, most research subjects reported minimal (if any) humanitarian services in their areas, while the widely used Cluster 4W matrices suggest otherwise. This raises serious questions about which services exist in reality and who exactly they are (or are not) accessible to, in particular locations. Which factors impact on the access of particular groups within communities to available services? For other intended beneficiaries, why are current services not reaching them? What factors continue to influence (in)accessibility to particular groups? The issue demands further research and action.
8. Asset sharing is a key coping mechanism for many Somali households and communities. Further research is needed to investigate the extent to which household inability to share assets and to access social support mechanisms, common amongst the most vulnerable, impact on health and nutritional status.
9. Mapping the local strengths and assets of particular Somali communities, that can be proactively drawn on in efforts to upgrade the nutrition and health of communities concerned.
10. Widely disseminating positive case stories and lessons learned relating to the above, e.g. where religious and other community leaders (formal and informal) have become catalysts of positive change, what factors have influenced their meaningful engagement? What factors sustain it? How can other communities learn from the experience?
11. Develop and disseminate case stories and case studies of positive practice (positive deviance) regarding family health and nutritional status in challenging environments. For example, where fathers take more responsibility, where religious and community leaders are positively engaged in health and nutrition promotion.



Challenges Experienced in the NCA Research

South Central Somalia-related Challenges

1. SNS programmes operate largely in areas with little or no government presence, with the exception of Banadir. Consequently, significant insecurity affected, for example, the potential to base lead NCA researchers in areas including Baidoa and Beletwayne. This was confounded by communication problems (local networks) which made liaising with the respective research coordinators difficult at the time.
2. For security reasons, lead researchers could not conduct field visits beyond their base (either Mogadishu or Dollow compounds). Information was validated through triangulation as far as possible (FGD, KII, photographs, daily feedback, literature review and discussions), but this is far from ideal and challenges quality assurance.
3. Constant security-related road closures in Mogadishu postponed several events and prevented field researcher travel on three days. Time lost was made up for by conducting two FGDs daily, morning and afternoon (rather than one daily), each of approximately two-and-a-half-hour duration.
4. The notable levels of unmet need and vulnerability experienced by many SC Somali communities, including those involved in the NCA research, influenced unforeseen expectations of financial payment or other material reward for participation in the study. This was true of some community members and some local leaders. Apart from the fact that the NCA budget did not allow for such financial payments, ethical questions are raised about the related practice of some humanitarian actors which fuels such expectations and questionable participation⁴.
5. It was not possible to meet and interview some key stakeholders in the field, including some senior officials, all of which limited the triangulation of emerging data.
6. The opportunity to verify data is extremely reduced in highly insecure environments, particularly where multiple interests are at stake and people have learned to “play the game” to their advantage. This presents particular challenges in research contexts.
7. Gaining credibility and ensuring the legitimacy of the qualitative research teams, which always takes time and effort, was considerably affected by the above factors. Extreme levels of insecurity serve to heighten suspicion, skepticism towards “outsiders”⁵ and the development of relationships built on trust. At the same time, no in-depth qualitative research of quality can take place unless at least a minimal degree of trust is established. These factors explain some of the delays in meeting initially agreed NCA field research deadlines. They also help explain challenges faced in Dollow, where SNS does not operate and local field teams were not available to facilitate research team access.
8. Insecurity inevitably hampers the monitoring and supervision of field research teams, with implications for quality assurance at all levels. The absence of a lead NCA researcher in Baidoa and Beletwayne, for example, challenged support and supervisory mechanisms. Weak connectivity in some NCA locations, especially Beletwayne and Baidoa, significantly impacted on the potential for the lead researchers stationed elsewhere (in Mogadishu and Dollow) to effectively support the Beletwayne and Baidoa NCA research coordinators.

⁴ This is not to downplay local questions about what those involved, who make time to participate in such studies, can expect from a particular study (NCA or other), which are understandable. Research teams should be prepared for such questions, especially in very needy, research-fatigued contexts which have witnessed a series of studies which seem to make little difference to their lives.

⁵ This includes Somalis from other locations and/or clans, often seen as “outsiders” when away from their home locations.

9. Insecurity makes transport notably challenging and expensive, with things often changing rapidly and unpredictably. It can make access impossible at the last minute, with implications for initial plans, timeframes and budgets. Getting all NCA research team members from three locations to one central point for training, briefing and study purposes, proved challenging. In Dollow, for example, claims that the Elberde research teams (as originally planned) could not get to Dollow for reasons of heightened insecurity and lack of safety at the time, meant last minute changes of plan. In several instances, extreme road insecurity meant that NCA teams had to be flown to the necessary location. Consequently, the NCA timeline was repeatedly revised to accommodate unforeseen challenges, all of which inevitably prolonged the study and increased the budget.
10. Actors in the field are not immune from politics, which inevitably affects development and research initiatives, as the NCA study experienced. Under great time pressure, the implications for those managing such a study, including security aspects, are not to be underestimated.
11. In sum, the NCA field logistics in South Central Somalia could not have been more complex, time consuming or demanding, for all involved.

Limited Qualitative Research Capacity

1. Qualitative Research experience and expertise remains rare in Somalia and among Somali speakers, for many reasons. This had implications for the whole study, from senior to field levels. It made the research notably challenging to undertake, manage and see through to a degree of quality. The NCA study has highlighted the urgent need to strengthen qualitative research skills and competencies and increase the limited number of qualitative researchers in Somalia. This is particularly true in the nutrition field, where “research” is typically assumed to mean standard nutrition surveys. It accounts for notable gaps in the evidence base on numerous issues critical to nutrition, in particular those relating to socio-cultural beliefs and practices which impact significantly on Maternal, Infant and Young Child Feeding and care in particular.
2. This was the first significant NCA study conducted in Somalia and neither the consultants nor SNS managers had prior experience of the Link NCA methodology. The whole process was a learning experience with challenges arising addressed on the go, in particularly complex South Central Somalia contexts. This made for extreme challenges and exhaustion at times.
3. Limitations of the NCA study combined with the

dearth of Somali speaking qualitative researchers, meant a limited pool of field researchers to draw from for the six studies, particularly when combined with security-related access issues which complicate all work and studies in South Central Somalia.

4. Communities researched were in general surprised by the time they were asked to contribute to the study, being far more used to “quick 10 minute surveys”. Some research participants reported, understandably, that they are tired of giving out information without getting anything in return, and used the time being requested of them for FGDs (an average of 2-3 hours) to argue for immediate material benefits. This has an added significance when some research subjects can barely afford one meal a day, which understandably fueled researcher discomfort.
5. Limited qualitative research expertise and experience made the whole study very challenging and time consuming. It has demanded an enormous amount of work and time from NCA Advisory Group members, without which the study could not have been completed.

NCA Methodology Challenges

The Link NCA methodology provides a valuable framework but inevitably takes time to understand and digest before use.

1. Research team roles had to be adjusted on the basis of experience in situ. For example, translators were initially to be stationed at a fixed base, but this was changed to enable them to accompany the research teams and obtain firsthand information to complement the transcriptions they were responsible for. In other instances, FGD facilitator roles had to be changed to ensure the necessary fit with local dialects.
2. The NCA Historical Timeline of Events proved difficult to fill as people often did not remember key dates and time periods. This is likely to be a particular challenge in communities with very low literacy levels, as was the case in this study. Consequently, in this study, events were grouped per year rather than by date or month.
3. In-depth FGDs and KIIs are time consuming, especially for communities busy trying to keep their families alive and healthy in notably difficult circumstances. Both the NCA researchers and communities involved commented on the extent of time and energy demanded by such in-depth, qualitative approaches which they are not accustomed to.

Challenges particular to the SNS NCA Study

1. Extreme time pressure from the start of the process, especially given the complex realities prevalent in South Central Somalia today, significantly challenged every stage of the study. While all researchers work under time pressure, it was extreme in this case due to the many challenges outlined above, which are far from typical of most research contexts. Given that the SNS NCA research involved six separate studies in different South Central Somalia locations, it is admirable that the study was completed within eight months⁶.
2. The lack of SNS presence in Dollow/ Gedo region made it trickier to establish trust with those communities, in the very short time available for the NCA field research. This contrasted with other NCA locations where the presence of SNS partners helped to establish a degree of trust and legitimacy amongst local leaders and communities relatively quickly. Given the high levels of insecurity across SCZ, this issue is particularly pertinent to such research. It inevitably impacts on the degree and quality of information shared with outside researchers.

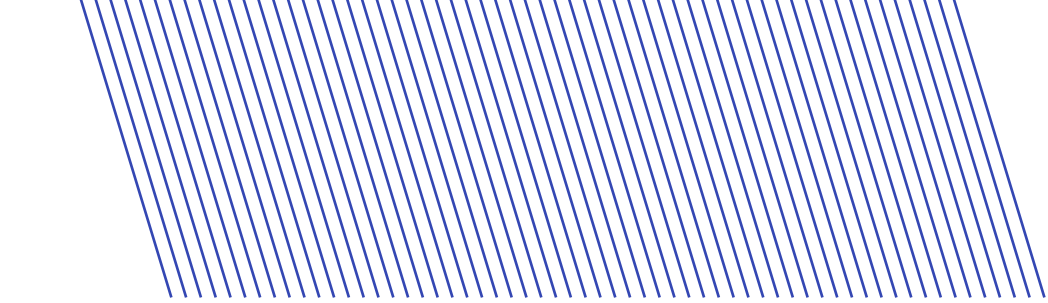
In sum, all the above mentioned challenges serve to alert key actors and other potential researchers to the realities of undertaking such a study in highly insecure, unpredictable and complex environments of extreme need, like those commonly found in South Central Somalia. There are major implications for the time and budget required, as well as for flexibility and managing expectations at all levels. We have documented the challenges faced during the NCA study as comprehensively and honestly as possible, in the interest of helping other researchers and commissioners of research in comparable contexts become more aware of the challenges they will likely face and which will inevitably impact on the ultimate quality of the research.

Questions are raised about whether all the risks, time (including time taken away from other priorities) and budget that has proved necessary have been worth it. While it remains pre-mature to answer this question, it needs to be considered.

Study Limitations

1. The NCA research has opened the lid on a wide range of issues and factors which influence the nutritional status of particular Somali communities, and of specific groups within those communities. Some are well-known and others less so. While this is to be welcomed, many initial findings are likely to raise more questions than they will answer.
2. The research has merely scratched the surface of some fundamental and deeply rooted issues, beliefs and practices. Had the NCA circumstances not been so extreme, it is likely that understanding about some of these fundamental concerns could have been deepened during the research and more evidence gathered. As it is, understanding will have to be progressed in future studies. The recommendations for future research should help to take this forward.
3. Unlike some NCA studies which include both quantitative and qualitative elements, this research was purely qualitative by design. Although there were good reasons for this as outlined in Section I of the report, the expectations of some stakeholders may not be met.
4. Limited Qualitative Research capacity and experience impacted on every stage of the NCA. The implications in terms of levels of support, time and budget required, are not to be underestimated.
5. For reasons already outlined, in particular the fact that this research involved six separate NCA studies in different locations, the initial time frame and budget allocated were significantly lower than necessary. They failed to take account of the realities of undertaking such research in the South Central Somalia locations where SNS operates. Time pressure has inevitably limited the study in different ways⁶.

⁶ According to the ACF Link NCA guidance material, one Link NCA Study demands at least four months of full time work. In this research, six NCA studies were conducted in six different livelihoods locations and full research completed within 8 months.



Lessons Learned on Conducting an NCA Study

1. Those commissioning and supporting such research in notably insecure, complex and challenging contexts like South Central Somalia, particularly in rural areas where there is little or no government presence, need to manage expectations accordingly at all levels
2. The above point has significant implications when setting research time frames, budgets and ensuring the necessary professional support, as the SNS experience has highlighted.
3. Link NCA resources and tools are useful, but demand time to be adequately understood and well contextualized.
4. In the absence of a body of experienced and able, in-country qualitative researchers who have previously undertaken in-depth research and produced qualitative research reports of quality, a Link NCA Study (or similar) may be overly ambitious.
5. The study could not have been carried out, or completed, without the active guidance, oversight and supporting role played by NCA Advisory Group members throughout the duration of the research. While enormously time consuming, this proved critical to ensuring a degree of rigor, timely follow up of challenges and fostering quality assurance.
6. Having respected gate keepers who can help gain community trust and secure the legitimacy of research teams amongst local communities is hugely important. It is even more critical in highly insecure and fragile environments. As the study witnessed, close liaison with SNS Consortium agencies facilitated entry and the organization of FGDs and KII in NCA study villages. It gave the research teams in those areas a degree of legitimacy locally, which was not experienced by all NCA research teams.
7. As above, in such contexts the security and safety of field teams is ensured by working closely with local leaders and gate keepers. SNS team presence in Mogadishu and Beletweyne was important, as the staff are known and the NCA research teams were consequently well received by the communities being assessed.
8. The study highlighted the need to remain open to unpredictable and unfolding circumstances, until the last minute. As was seen in relation to the Gedo and Baidoa NCA studies, changes often have to be made last minute and key decisions taken quickly, possibly without consulting research managers located elsewhere. This reality has significant implications in terms of study communities and research subjects, as well as pre-planned time frames and budgets, as witnessed. It is fair to say that for such reasons, higher level managers can expect to have less control of research in highly insecure, unpredictable and volatile environments.
9. Significant time and energy needs to be provided in location in initial planning phases, to source and recruit appropriate researchers (with the necessary skills, expertise and competencies), who also understand the study context and substance adequately. In insecure and volatile environments, where access is notably constrained, the implications are significant. At later stages, more time and money may be required to enable lead researchers to spend longer in the field undertaking preliminary analysis with field research teams.
10. In contexts like those where the NCA study took place, field research can be very stressful both for the lead researchers and their families. Support with stress management, for lead researchers working in SC Somalia, would be helpful.
11. Remote management of research teams and supervisors is extremely demanding for all concerned. It requires extra patience, honesty, time and energy, which takes a toll on all involved. It also demands greater expenditure on communication, in challenging contexts.
12. Daily debriefs with field research teams and lead researchers in particular, are highly recommended

in relation to assuring quality.

13. Adequate time and support for lead researchers in the early stages, particularly when developing research hypotheses to guide the NCA planning and field work, is essential. The selection of diverse participants to inform the development of NCA study hypotheses is critical; if only the “usual suspects” are invited and engaged, the likelihood of conducting a limited study and learning more of the same is very high. In retrospect, this stage was not adequately informed by a thorough literature review, nor was it given the appropriate attention by those involved in the SNS study, which came to have significant implications.
14. Ensure clarity on all logistics and the respective roles, responsibilities and sources of support all research team members can expect at particular stages.
15. Allow adequate time to develop, interrogate and refine, as necessary, all draft research guides and tools, in appropriate languages. Research field team training needs to allow time for this.
16. Ensure that lead researchers are well prepared to brief key stakeholders at the start of such a study and to answer questions appropriately.
17. Four months for one NCA study is a fair recommendation⁷. However, completing six similar studies over eight months in total, without increasing the number of lead researchers to cater for the added work, challenged the NCA field work, analysis and report production.

Conclusion

The NCA Study has largely achieved its objectives and successfully identified key factors fuelling acute malnutrition in the specific communities studied. A visual causal pathway, which outlines the key drivers of acute malnutrition and establishes the links between the various key factors, has been produced for each NCA study. It is anticipated and hoped that key stakeholders on the ground in respective NCA Study locations will use their experience and expertise to adapt and add value to the initial causal pathways over time, as the NCA findings are interrogated further at field levels. Recommendations generated from the assessed communities and triangulated by secondary data and debrief meetings and discussions to date, indicate that the researched communities desperately seek more secure livelihoods and will do what they can to help achieve these.

This final section of the NCA Report highlights that before committing to an NCA study, serious consideration needs to go into whether existing research capacity, professional support, time and budget for the intended study is adequate, i.e. whether the planned study is feasible or not in the intended context. The South Central Somalia NCA Research reported here includes many findings and recommendations of value, some well and long-known and, hopefully, some relatively new, less widely-known and documented. However, the “proof is in the pudding” and the ultimate value of the NCA will only be known when key actors including SNS members, WFP, the MOH, UNICEF and others, have further interrogated used the NCA findings and recommendations of relevance to inform their efforts to strengthen the nutritional status of Somali communities. This is the next challenge facing all those involved.

At the same time, the NCA study has proved notably costly in terms of levels of capacity required, the excessive amount of support required at field and Nairobi levels, the time and, ultimately, budget necessary. It has also been costly in terms of ensuring the safety of all field researchers and taking time away from other priorities, particularly within SNS. In this context it is worth noting that the ACF Link NCA global team, which supports studies across the globe, is currently raising similar questions - particularly in relation to conducting such research in contexts comparable to South Central Somalia where prolonged insecurity, significant instability and extreme, unmet needs remain the norm. It is fair to say that neither the lead researchers nor NCA Advisory Group members involved had previously experienced challenges on the scale and to the degree faced during the South Central Somalia NCA Study.

The lead NCA researchers, members of the NCA Advisory Group and others involved look forward to receiving feedback on the report and, especially, to hearing how different actors are using the NCA study findings to strengthen their programmes and impact in Somalia.

⁷: i.e. the minimum time period recommended for an in-depth NCA Study. See www.linknca.org



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