





Baseline Report Tanzania

GROW ENRICH Global programme to improve maternal and child health and nutrition in East Africa through strengthening health and nutrition systems and operationalising gender-sensitive health and nutrition rights strategies in Kenya, Somalia and Tanzania

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World Vision Tanzania







Table of contents

Table of contents	i
List of tables	iii
List of figures	iv
Affirmation	.v
Acknowledgement	vi
Acronyms	/ii
Executive summaryv	iii
Baseline background and contextv	iii
Baseline methodologyv	iii
Key findingsv	iii
Recommendationsx	iii
1. Introduction	5
2. Baseline objectives and scope	6
3. Methodology	6
3.1 Design, population, and sampling	6
3.2 Methods and tools for data collection	7
3.2.1 Documentary review	7
3.2.2 Ouantitative data collection	8
3.2.3 Qualitative Data Collection	8
3.2.4 Incorporating GESI-Assessment	9
3.2.5 CSO capacity assessment	9
3.3 Summary of data collection methodology	9
3 4 Methods and tools for data analysis	9
3.5 Quality assurance in data collection and analysis	20
4 Limitations and risk management	···
5. Compliance with standards and data protection	21
5.1 Standards	21
5.2 Data Protection	2
6 Findings analysis and conclusions	2
6.1 Findings and Analysis	2
6.1.1 Participant background characteristics	2
6.1.2 Overall Outcome. Indicator 1: % increase of funding for health and nutrition service	es
from KEN TZA national budgets & Puntland regional budgets	24
6 1 3 Overall Outcome Indicator 2.% of children under five years of age with a reduction	in
wasting	24
6.1.4 Overall Outcome Indicator 3: % of children under 5 years with a reduction in stunting	י י זפו
2	.e
6.1.5 Outcome Module 1. Indicator 1: # action plan per country, including monitorir	יס. זפ
frameworks aligned to African Regional Nutrition Strategy 2015-2025 (ARNS)	
6.1.6 Outcome Module 1. Indicator 3: % Increase of funding provided annually by sul	 b-
national governments for local health and nutrition facilities in target districts	27
6.1.7 Outcome Module 1. Indicator 4: % increase of key government officials at national ar	nd
sub-national levels who understand and actively advocate (participate) for the application)n
of basic nutrition and health rights as enshrined in international and local laws	29







6.1.8 Output 1.1, Indicator: # of government institutions that have integrated national and
sub-national gender-responsive health and nutrition policies and protocols into their
agriculture, nutrition, nealth and sanitation sector plans
breastfed (EBF)
6.1.10 Outcome Module 2, Indicator 2 % of women aged 15-49 who used at least 4
antenatal examinations (ANC)
6.1.11 Output 2.1, Indicator 1: # of health facilities in target districts providing gender-
sensitive primary care in nutrition and health and SRHR
6.1.12 Output 2.1, Indicator 2: # of increased yearly nutrition & SRHR consultations in H&N
facilities in project areas
6.1.13 Output 2.2, Indicator 1: # of number of community-based organizations/groups with
the capacity to prevent, monitor and address malnutrition from a gender perspective34
6.1.14 Outcome Module 3, Indicator 1: % of children aged 6-23 months receiving minimum
acceptable diet
6.1.15 Output 3.1 Indicator 1# of HH growing nutrient-rich crops
6.1.16 Output 3.2, Indicator 2: % of HH with acceptable Household Dietary Diversity Score
(HDDS)
6.1.17 Output 3.2, Indicator 1: % and # of families with adequate knowledge and skills in
nutrition in the first 1000 days as per MIYCF minimum criteria
6.1.18 Output 3.2, Indicator 2: # and percent of primary caregivers with improved
knowledge and practice in IYCF practices41
6.1.19 Output 4.1 Indicator 1% increase in local CSO capacity assessment score
6.2 GESI-Assessment
6.2.1 Access to, ownership of, and use of assets, resources, opportunities, services, benefits,
and infrastructure45
6.2.2 Decision-making on assets, resources, opportunities, services, and benefits at all
levels47
6.2.3 Participation-ability to participate and/or engage in societal affairs and systems of
power that influence and determine development and well-being outcomes
6.2.4 Systems-systems that promote equity and inclusion, and create an enabling
environment for equal engagement49
6.2.5 Well-being creates a sense of worth, confidence, dignity, safety, and health free of all
forms of inequalities and discrimination50
7. Conclusions
7.1 General conclusion
7.2 Conclusion about GESI
8. Recommendations
References
Appendices Error! Bookmark not defined.







List of tables

Table 1: The key baseline indicators summary	xi
Table 2: Sample size and stakeholders for FGDs and KIIs	17
Table 3: Participant background characteristics by district of residence (N=465)	23
Table 4: Bio-fortified foods and crop production	37
Table 5: Household dietary diversity	39
Table 6: Percentage distribution of knowledge and practice on IYCF, overall a	nd by
district (n=465)	42
Table 7: Gender equality Social inclusion Assessment (GESI) participants' character	istics
	45







List of figures

Figure 1: Prevalence of anthropometric indicators, overall and by district (n=360)	25
Figure 2: Prevalence of anthropometric indicators by child's age and sex (n=360)	26
Figure 3: Prevalence of exclusive breastfeeding by district and child's sex (n=106)	30
Figure 4: Prevalence of ≥4 ANC visits by district (n=405)	32
Figure 5: Percentage distribution of minimum acceptable diet (MAD), overall and by	
district (n=275)	36
Figure 6: Percentage distribution of MDD and number of times child ate solid,	
semisolid, or soft foods yesterday, overall and by district (n=275).	41







Affirmation

Except as acknowledged by the references in this baseline report to other authors and publications, the information and guidance contained herein consist of our work undertaken on the baseline survey assignment to improve the quality and utilization of GROW ENRICH project baseline findings by World Vision staff and partners. Also, the primary quantitative and qualitative data collected throughout remain the property of the communities and households described in this document.

Prof. Rachel Manongi and Innocent Mboya

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Acronyms

ANC	Antenatal Care
СНМТ	Council Health Management Team
CHW	Community Health Worker
CSO	Civil Society Organizations
DC	District Council
EBF	Exclusive Breastfeeding
FEFO	Iron and Folic Acid
FGD	Focus Group Discussion
GESI	Gender Equality and Social Inclusion
IYCF	Infant and Young Child Feeding
IQR	Interquartile Range
KII	Key Informant Interviews
M&E	Monitoring and Evaluation
RHMT	Regional Health Management Team
SRHR	Sexual Reproductive Health and Rights
TZS	Tanzanian Shillings
WEO	Ward Executive Officer
WASH	Water, Sanitation, and Hygiene
WRA	Women of Reproductive Age
WVT	World Vision Tanzania
WYCF	Women and Youth Careline Foundation







Executive summary

Baseline background and context

Assessing the current status of child and maternal nutrition status before project implementation is a key foundation for informing targeted interventions, promoting equity, and improving health outcomes. The baseline survey of the GROW ENRICH project aimed to establish outcome and output baseline values to measure project effectiveness throughout the project's life to completion. Specifically, the objectives were to; 1) assess the current status of child and maternal nutrition status in the project areas, including accessibility and utilization of essential healthcare services by the target population and other key socio-economic factors 2) set and /or interpret baseline values (benchmarks) for each key project indicator at the outcome and output level according to the log frame; and 3) set targets against which project progress along the impact chain can be monitored and evaluated over time.

Baseline methodology

The baseline survey employed a cross-sectional study design using a mixed methods approach, which is both a quantitative and qualitative approach of data collection in Shinyanga DC and Kishapu DC. The quantitative aspect included a random sample of 465 mother-child pairs (i.e., children under five years of age) using a structured questionnaire at the household level, capturing questions on child anthropometric indicators, bio-fortification, antenatal, birth, and postnatal care, knowledge on nutrition and IYCF practices, diet for children 6-23 months of age, and the household dietary diversity. The qualitative component involved FGDs and KIIs with Women of Reproductive Age (WRA) 15-49 years/primary caregivers with children under five (which constituted children 0-5.9 months and those 6-23 months separately). Interviews with WRA of younger children (0-23 months) were a target of questions related to Exclusive breastfeeding (EBF) and complementary feeding, particularly questions on the minimum acceptable diet (6-23 months).

The qualitative study population collected data from in-laws, community leaders, members of district health teams including community development officers, Health-facility staff, CHWs, pregnant and lactating women, district health teams, agricultural and irrigation officers, district nutrition focal person, religious leaders, and other stakeholders who were identified as key stakeholders in the region. The GESI assessment using FGDs (including questions on gender issues and disability at the community level) was conducted separately for men, women, and youths (female and males); and a review of CSO partners in Shinyanga. Data were cleaned and analysed using STATA software, where descriptive statistics summarized quantitative data and thematic analysis was used for qualitative data.

Key findings

The baseline household survey was conducted among 465 households, 77.4% from Shinyanga DC, and 22.6% from Kishapu DC. Most of the children 59.8% were aged 6-23.9 months 22.6% aged 0-5.9 months, 53.5% were males, and 90.3% of the interviewed adults were the biological parents of the index child. Sixty percent of households were male-headed households. A summary of key findings by the project indicators is provided below.

Overall Outcome, Indicator 1: % increase of funding for health and nutrition services from KEN, TZA national budgets & Puntland regional budgets: In Tanzania, prioritization of nutrition in the national plans has gone along with increased resources through national budgets for both specific and nutrition-sensitive interventions. The total cumulative cost stipulated in the second







National Multisectoral Nutrition Action Plan (NMNAP II) for the year 2024/25 is TZS 104,867,379,443 (USD 39,133,150).

Overall Outcome, Indicator 2: % of children under five years of age with reduction in wasting: Overall, the prevalence of general acute malnutrition (GAM) was 3.6% (95%Cl 1.8, 7.2). The corresponding prevalence of moderate and severe acute malnutrition was 2.5% (95%Cl 1.0- 5.9) and 1.1% (95%Cl 0.3- 3.5), respectively. Prevalence of GAM did not differ significantly by the child's age and sex (p>0.05) and was similar to the 3.5% national estimate, but much higher than 1.3% in the Shinyanga region in the 2022 TDHS (MoH et. al., 2022). Children with any form of disability had a significantly higher prevalence of GAM (10.9%, n=6/55) than 2.3% (7/305) in those without any form of disability (p=0.003)

Overall Outcome, Indicator 3: % of children under 5 years with a reduction in stunting: The prevalence of stunting in children aged 6-59 months was 30.3% (95%CI 23.8, 37.6), and was comparable to the national (30%) and regional (27.5%) estimates in the 2022 TDHS (MoH et. al., 2022). The prevalence differed significantly by sex (p=0.03), with male children having a higher prevalence (35.1%) than females (24.7%). The prevalence of stunting among children with any form of disability: (34.6%) was not significantly different from 29.5% among those with no disability (p=0.45).

Outcome Module 1, Indicator 1: # action plan per country, including monitoring frameworks, aligned to African Regional Nutrition Strategy 2015-2025 (ARNS): The government of Tanzania uses the National Multisectoral Nutrition Action Plan (NMNAP II) 2021/22 – 2025/26, which is aligned with objectives of several national, regional, and global initiatives, such as the East African Development Vision 2050; SADC Regional Food and Nutrition Strategy 2021; The Scaling-Up Nutrition (SUN) Movement launched in 2012; Sustainable Development Goals (SDGs) 2030; and the African Union Agenda 2063 (PMO 2022).

Outcome Module 1, Indicator 3: % **Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts:** Shinyanga region allocated a total of TZS 879,838,010/= for both health and nutrition services in the year 2023/24 while Tsh. 16,678,800/= was allocated for nutrition only.

Outcome Module 1, Indicator 4: % increase of key government officials at national and sub-national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws: There are a total of seven government officials a who understand and actively advocate for the application of basic nutrition and health rights in the region. These seven individuals constitute the regional and district health coordinators, i.e., two at the regional level (Regional Medical Officer & Regional Nutrition Officer); three in Shinganga DC (District Nutrition Officer, Social welfare officer, and District Medical Officer), and two in Kishapu DC (District Nutrition Officer and District Medical Officer).

Output 1.1, Indicator: # of government institutions that have integrated national and sub-national gender-responsive health and nutrition policies and protocols into their agriculture nutrition, health and sanitation sector plans: All eight government departments in the region use two approved policies; The Term of reference (TOR) 2018-Muongozo wa Uendeshaji wa Vikao vya Tathmini ya Mikataba ya Lishe Nchini (guiding the evaluation of all nutritional contracts in the country/region); and the National Multisectoral Nutrition Action Plan (NMNAP) 2021/22-2025/26.

Outcome Module 2, Indicator 1: % of children<6 months who are exclusively breastfed (EBF): The prevalence of EBF among children < 6 months was 72.6% (95%CI 63.5, 80.2) and did not differ







significantly by child's sex (p=0.89). The prevalence in this baseline assessment was higher than the national (64%) in the 2022 TDHS (MoH et. al., 2022).

Outcome Module 2, Indicator 2: % of women aged 15-49 who used at least 4 antenatal examinations (ANC): Most (81.2%, 95%CI 75.5, 85.8) of the women of reproductive age (15-49 years) who ever attended ANC for their most recent birth attended for four or more times. The proportion is significantly higher than that reported in the 2022 TDHS, 65% nationally and about 45% in the Shinganya region (MoH et. al., 2022).

Output 2.1 Indicator 1: # of health facilities in target districts providing gender-sensitive primary care in nutrition and health and SRHR: a total of 60/71 (84.5%) in Kishapu DC and all 49 health facilities in Shinyanga DC provided gender-sensitive primary care in nutrition and health and SRHR.

Output 2.1, Indicator 2: # of increased yearly nutrition & SRHR consultations in H&N facilities in project areas: In 2023, there were 313,080 SRHR consultations and 279,117 nutrition consultations in the project's catchment area (i.e., Shinyanga and Kishapu DCs combined).

Output 2.2, Indicator 1: # of number of community-based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective: The baseline evaluation assessed one CSO, Kivulini Women's Rights Organization, available in the project's catchment area.

Outcome Module 3: Indicator 1: % of children aged 6-23 months receiving minimum acceptable diet (MAD): Overall, MAD was achieved by only 13.1% (95%CI 9.5, 17.8, n=36/275) of children aged 6-23 months in the households. The proportion was slightly higher in girls (16.4%) than in boys (10.5%) those not statistically significant (p=0.15). However, the proportion is slightly higher than the 7.9% reported in the 2022 TDHS (MoH et. al., 2022).

Output 3.1 Indicator 1# of HH growing nutrient-rich crops: the proportion of households growing nutrient-rich crops at baseline was 31.8% (95%CI 23.9, 41.0), n=148/465.

Output 3.1, Indicator 2: % of HH with acceptable HH Dietary Diversity Score (HDDS): Overall, 3.4% (95%CI 1.5, 7.5) of the households had high HDDS (i.e., consumed \geq 9 food groups). There were no statistically significant differences in the HDDS by the child's gender and having any form of disability. However, the proportion was higher in males (4%) than females (2.8%), p-value=0.50, and those with any disability (4.6%) than those who did not (3.3%), p=0.05.

Output 3.2, Indicator 1: % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria: overall, of all children aged 6-23 months at baseline, 22.9% (95%CI 18.4, 28.1, n=63/275), achieved the minimum dietary diversity (MDD) of \geq 5 food groups. This proportion is higher than the national (18.8%) and regional (7.1%) estimates in the 2022 TDHS. Also, the minimum meal frequency (MMF) of \geq 4 times was achieved by only 8.4% (95%CI5.3,12.9) of these children, and the proportion was much smaller than the national (33%) and regional (15.4%) estimates (MoH et. al., 2022). There were no significant differences in the proportion of MDD and MFF by the child's sex and disability status (p>0.05). On the other hand, nearly 90% of biological mothers of the index child at baseline consumed iron and folic acid (FEFO) supplementation in their last pregnancy.

Output 3.2, Indicator 2: # and percent of primary caregivers with improved knowledge and practice in IYCF practices: The proportion of primary caregivers with improved knowledge and practices in IYCF at baseline evaluation was 47.7% (95% 39.4, 56.2).







Output 4.1 Indicator 1% increase in local CSO capacity assessment score: Based on the WV CSO capacity assessment, Kivulini had a general score of 85.1%, demonstrating a maturity stage. However, despite being in the maturity stage, some areas need improvement including identity & Constituency (75%), Governance and Leadership (80%), Strategy Systems & Structure (80.2%), Managing Our Resources (87.5%), and External Relations (81.3%).

The key baseline indicator values, baseline assumption, and target values are summarized in **Table 1** below.

	Table 1: The	key baseline	indicators summar	'y
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Indicator	Baseline assumption (Design Phase)	Baseline Value Tanzania	Target Values at the Design Phase
Overall Outcome: Indicator 1 % increase of funding for health and nutrition services from KEN, TZA national budgets & Puntland regional budgets	-	Total cost for MNAP II for the year 2024/25: TZS 104,867,379,443 (USD 39,133,150)	TBD after baseline
Overall Outcome: Indicator 2 % of children under five years of age with reduction in wasting	Tanzania: 3.5% (TDHS 2022)	GAM: 3.6% (95%Cl 1.8, 7.2) Boys: 5.2%, Girls: 1.8% With disability: 10.9% vs. 2.3% without MAM: 2.5% (95%Cl 1.0- 5.9) SAM: 1.1% (95%Cl 0.3- 3.5)	
Overall Outcome: Indicator 3: % of children 6-59 months with reduction in stunting	Tanzania: 34%	30.3% (95%Cl 23.8, 37.6) Boys: 35.1%, Girls: 24.7% With disability: 34.6% vs. 29.5% without	Tanzania: 32%
Outcome Module 1:Indicator 1: # action plan per country, including monitoring frameworks, aligned to African Regional Nutrition Strategy 2015-2025 (ARNS)		N/A	The indicator is process and output in nature and will be reported through routine monitoring
Outcome Module 1: Indicator 2 # of Progress Reports and Accountability Mechanism submitted by project mid-term		N/A	The indicator is process and output in nature and will be reported through routine monitoring
Outcome Module 1 Indicator 3 % Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts	-	879,838,010 TZS (For the year 2023/24 in Shinyanga region)	TBD
Outcome Module 1 Indicator 4% increase of key government officials at national and sub- national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws	-	Total =7 2-Regional 3-Shinganga DC 2-Kishapu DC	TBD







Indicator	Baseline assumption (Design Phase)	Baseline Value Tanzania	Target Values at the Design Phase
Output 1.1 Indicator 1 # of government Institutions that have integrated national and sub-national gender-responsive health and nutrition policies and protocols into their agriculture nutrition, health and sanitation sector plans		N/A	The indicator is process and output in nature and will be reported through routine monitoring and project reports
Output 1.2 Indicator 1: # of regional conferences/regionally convened nutrition events completed and as a result, an integrated action plan delivered to national and sub-national government partners		N/A	The indicator is process and output in nature and will be reported through routine monitoring and project reports
Outcome Module 2 Indicator 1: % of children< 6 months who are exclusively breastfed	Tanzania: 59%	72.6% (95%CI 63.5, 80.2)	TBD
Outcome Module 2 Indicator 2: % of women aged 15-49 who used at least 4 antenatal examinations (ANC)	Tanzania: 51% DHS 2015)	81.2% (95%CI 75.5, 85.8)	10% by project end
Output 2.1 Indicator 1: # of health facilities in target districts providing gender- sensitive primary care in nutrition and health and SRHR	-	Total 109 :Kishapu DC: 60/71 (84.5%) Shinyanga DC: 49/49 (100%)	TBD
Output 2.1 Indicator 2: # of increase yearly nutrition & SRHR consultations in H&N facilities in project areas	-	Total SRHR consultations , 142,901 Total Nutrition consultations Shinyanga region in 2023: 2279,117	
Output 2.2 Indicator 1 # of number of community-based organizations/groups with capacity to prevent, monitor and address malnutrition from a gender perspective	-	Five	TBD
Output 2.3 Indicator 1 # of districts with H&N planning/knowledge done by trained district health managers		N/A	The indicator is process and output in nature and will be reported through routine monitoring and project reports
Outcome Module 3: Indicator 1 % of children in target districts aged 6-23 months receiving minimum acceptable diet (MAD)	Tanzania: 9% DHS 2015	13.1% (95%CI 9.5, 17.8), n=36/275 Boys: 10.5% vs. Girls: 16.4% With disability (5%) vs. 14.5% without.	TBD
Output 3.1 Indicator 1# of HH growing nutrient-rich crops		31.8 (95%Cl 23.9, 41.0), n=148/465	
Output 3.1 Indicator 2% of HH in target districts with	-	3.4% (95%Cl 1.5, 7.5), n=16/465 Boys: 4% & Girls: 2.8%	-







Indicator	Baseline assumption (Design Phase)	Baseline Value Tanzania	Target Values at the Design Phase
acceptable HH Dietary Diversity Score (HDDS)		Any disability: 4.6% vs. 3.3% without	
Output 3.2 Indicator % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria	icator % and # of lequate skills in nutrition D days as per m criteria $MDD (\geq 5 \text{ food groups}): 22.9\% (95\%CI 18.4, 28.1), (n=63/275)$ $MMF (\geq 4 \text{ times}): 8.4\% (95\%CI5.3, 12.9), (n=23/275)$ $89.5\% (376/420) \text{ of mothers} consumed FEFO supplements} in their last pregnancy.$		-TBD
Output 3.2 Indicator 2 # and percent of primary caregivers with improved knowledge and practice in IYCF practices	-	47.7% (95% 39.4, 56.2) n=222/465	-
Outcome Module 4 :Indicator 1 # of local CSOs officially members of 1 national or regional advocacy working group		N/A	The indicator is process and output in nature and will be reported through routine monitoring and project reports
Outcome Module 4 :Indicator 2# of advocacy events (co)organized by local CSO		N/A	The indicator is process and output in nature and will be reported through routine monitoring and project reports
Output 4.1 Indicator 1% increase in local CSO capacity assessment score		85.1%	TBD

Recommendations

In conclusion, in this baseline survey, 30.3% of children 6-59 months are stunted, 3.6% are wasted, and 72.6% of infants 0-6 months are exclusively breastfed. Also, 81.2% of mothers had \geq 4 ANC visits. Only 422.9% % of children 6-23 months achieved MDD (\geq 5 food groups), 8.4% had \geq 4 MFF, and 13.1% achieved MAD. At the household level, 443.43% had high HDDS (\geq 9 food groups). Overall, knowledge of infant and young child feeding practices (IYCF) was high, but households lacked knowledge on biofortification, where only 31.8% grew bio-fortified foods. The officials reported receiving training in nutrition and health but have budgetary constraints. Given these, below are the recommendations:

- Promote community-based educational and nutritional interventions to reduce stunting and wasting. Strengthen CHWs to detect cases of stunting and wasting and provide them with clear instructions on how to refer such cases. Build the capacity of healthcare providers, CHWs, and educators to provide high-quality growth monitoring, to deliver effective nutrition education and counselling services in the communities and at the health facilities.
- Implement community-based awareness campaigns to educate women and their families on the importance of early optimal child feeding, ANC utilisation and the benefits of timely careseeking during pregnancy, which are crucial in collaboration with CHWs, local leaders, local







NGOs, and other influential community members (e.g., in-laws). Promote interventions to address barriers to accessing ANC services such as transportation challenges, and cultural beliefs. Strengthening the capacity of health facilities and providers to deliver the full package of recommended ANC services and education about optimal child-feeding practices.

- Empower women to make decisions such as on reproductive health and nutrition, by creating a supportive and respectful environment at home and in the community.
- At the household level, increase awareness and education campaigns about the benefits of bio-fortified foods while strengthening collaborations with agricultural and nutrition sectors at district and ward levels, local NGOs, and healthcare providers to integrate nutrition counselling into their agenda. To achieve community ownership, involve the community in planning for nutrition initiatives in their communities.
- WVT should collaborate with other stakeholders including CSOs and community members to raise their voices demanding an increase in the nutrition budget in their area. Also, districts to enforce the existing policy to local government authorities (LGAs) to allocate at least 10% of their source to health financing and explore other means to fund nutritional programmes at the district level.







1. Introduction

GROW ENRICH is a Global program aiming to contribute to the reduction of maternal and child mortality in select regions of Kenya, Somalia, and Tanzania. GROW ENRICH seeks to achieve this goal by addressing the root causes of malnutrition and gender inequality in the three target countries through a multi-level approach at micro, meso, and macro levels through strengthening health and nutrition systems and operationalizing gender-sensitive health and nutrition rights strategies. In Tanzania, the project is implemented by World Vision Tanzania and the local implementing partner, Kivulini Women's Rights Organization, in the Shinyanga region, particularly Shinyanga and Kishapu district councils (DC) in 41 villages.

The Terms of Reference (ToR) guided the baseline design, the questionnaires, and the study populations. The questionnaires were reviewed and prepared to capture the GROW ENRICH indicators assessing nutrition status in the project area. Several methods were employed to collect the required data. These included documentary reviews, caregiver household surveys, focus group discussions, GESI and KIIs with key stakeholders, and documentation of case studies.

Assessing the current status of child and maternal nutrition status before project implementation is a key foundation for informing targeted interventions, promoting equity, and improving health outcomes. The initial information covering women's accessibility and utilization of essential healthcare services, alongside socio-economic and demographic factors, will serve as the foundation for evidence-based decision-making, ultimately contributing to the well-being of not only the mothers and their children but entire communities and the achievement of global health goals.

The GROW ENRICH Project will build on proven strategies for implementing key health and nutrition interventions through strengthening local health and nutrition systems, targeted advocacy, and building the capacity of civil society and state actors at sub-national, national, and regional/ continental levels. The project will increase access to basic nutrition, Sexual Reproductive Health and Rights (SRHR), and health services. The Kivulini CSO were involved during the training, piloting and data collection activities providing additional local expertise.

The first step taken was to understand the TOR, which required the Consultant to undertake the baseline survey for the GROW ENRICH project to establish baseline values to measure project effectiveness throughout the life of the GROW ENRICH project completion. This report contains the methodology, findings and discussions, and conclusion and recommendations from the baseline survey conducted in Shinyanga DC and Kishapu DC, Shinyanga region, Tanzania.







2. Baseline objectives and scope

To establish outcome and output baseline values to measure project effectiveness throughout the life of the GROW ENRICH project completion.

The specific objectives are to:

- 1. Assess the current status of child and maternal nutrition status in the project areas, including accessibility and utilization of essential healthcare services by the target population and other key socio-economic factors.
- 2. Set and /interpret baseline values (benchmarks) for each key project indicator at the outcome and output level according to the log frame.
- 3. Set targets against which project progress along the impact chain can be monitored and evaluated over time.

3. Methodology

3.1 Design, population, and sampling

The baseline survey employed a cross-sectional study design using a mixed methods approach, which is both quantitative and qualitative approaches of data collection in Kishapu DC (3 wards) and Shinyanga DC (6 wards). Detailed information about the baseline methodology is available in Appendix VI. Briefly, the quantitative study population of the baseline survey was Women of Reproductive Age (WRA) aged 15-49 years/primary caregivers and children under five (i.e., 0-59 months, which also constituted children 0-5.9 months and 6-23 months). A two-stage cluster sampling design was used to select the study participants. Within districts, we selected a random sample of six (6) wards in Shinganga DC and three (3) wards in Kishapu DC. Within wards, a random sample of 21 villages/streets was selected, from which the primary sampling units (PSU) constituted a corresponding number of sub-villages/hamlets. Given a sample of 21 households per cluster, a total of 441 pairs of mothers/women of reproductive age (15-49 years) and children under five years (including those aged 0-5.9 months and 6-23 months) were selected for inclusion (i.e., 441 women and 441 total children under-five). In total, the study recruited a random sample of 465 households proportional to the size of each DC (Shinyanga [n=360] and Kishapu [n=105]), selected using systematic random sampling from each PSU (villages/streets). An extra 24 households were used to compensate for measurement errors on child anthropometrics and adult weight. At the household level, all women with children under five were invited to participate in the survey. Where there was more than one eligible woman in the







household, a simple random sampling was used to select one; and where the mother has more than one child under the age of five, the youngest will be selected.

The qualitative study population included focus Group Discussions (FGD) and Key Informant Interviews (KII) with community leaders, members of district health teams, community development officers, agricultural and irrigation officers, CHWs, district nutrition focal person health facility staff and religious leaders. The FGD constituted Women of reproductive ages, pregnant and lactating women, For the assessment of Gender Equality and Social Inclusion (GESI), the baseline survey involved adult men and women, and female and male youth as detailed in the inception report. The sample size for the qualitative design constituted a purposeful sample of stakeholders, who could provide meaningful information, to take part in the FGD and KII as summarized below in **Table 2**.

Table 2: Sample size and stakeholders for FGDs and KIIs

Fo	ocus group Discussions (FGD)	Key Informant interviews (KIIs)
•	Number of individuals per FGD: 6-10 members.	KII participants
٠	FGD participants:	1. In-laws
	I. WRA, pregnant and lactating mothers, caregivers; focus	2. District community
	on children 0-23 months.	development officer.
	2. WRA 15-49 years; general focus on access to health	3. District nutrition focal person.
	services, SRH etc.	4. District agriculture and
	3. Farmers who are interested in growing nutrient-	irrigation officer
	enriched (bio-fortified) food and seed multiplication.	5. Religious leaders.
	4. GESI FGDs (including questions on gender issues and	6. WEO/VEO/hamlet leaders,
	disability at community level): Men, Women, Youths	7. Health-facility staff.
	/Female, and Youths /male.	8. Community health workers
	5. CSO partners in Shinyanga and Kishapu DCs.	9. Gender Desk.

3.2 Methods and tools for data collection

3.2.1 Documentary review

A documentary review of GROW ENRICH project documents and similar programmes being implemented by WVT informed the development of qualitative and quantitative data collection tools and collected relevant secondary data to compare and triangulate with the results obtained in the baseline survey. The reviewed documents include:

- 1. GROW ENRICH Project proposal.
- 2. GROW ENRICH Project Logical framework matrix.
- 3. GROW ENRICH Project Monitoring and Evaluation (M&E) plan.
- 4. GESI-Assessment: tools and documents detailing this component.
- 5. Tanzania Demographic and Health Survey and Malaria Indicator Survey 2022 Final Report (MoH et al., 2022).







- 6. Tanzania National Nutrition Survey using SMART Methodology (TNNS) 2018 (MoHCDGEC et al., 2018).
- 7. National Multisectoral Nutrition Action Plan (NMNAP) 2021/22 2025/26

3.2.2 Quantitative data collection

The quantitative survey utilized a household questionnaire (**Appendix IV**) administered by trained research assistants using KoboToolbox software within the WVT server/data management platform. The questionnaire gathered information on, among others, household characteristics, (including demographic and socio-economic), food security, household power imbalances, dietary diversity, and nutritional status of the mother and the child under five, including the anthropometric parameters. The baseline survey utilized a similar Tanzania Demographic and Health Survey (TDHS) methodology for anthropometric assessment¹, where weight and height measurements were recorded for children aged 0–59 months, in addition, to adult weight. SECA Model 874 scales with a digital display number were used to measure weight, while height and length were measured using SECA measuring boards. Children younger than 24 months were measured lying down (recumbent length), while older children were measured standing (height). Two measurements were taken for each mother/caretaker and child under five to ensure accurate reporting of measurements.

3.2.3 Qualitative Data Collection

We collected qualitative data through FGDs, KIIs, GESI assessment (separate FGDs), and two case studies. Data collection tools included FGD and KII guides (**Appendix V**), the CSO Capacity Assessment tool, and case report forms. The FGD and KII participants are listed in **Table 2**. Using FGD guides, the baseline survey gathered information among WRA and mothers with children 0-23 months; and WRA 15-49 years with a general focus on access to health services, including ANC utilization, childhood nutrition, and sexual and reproductive health. A separate FGD guide collected data among farmers interested in growing nutrient-enriched (bio-fortified) food and seed multiplication. For the GESI assessment, the baseline survey utilized the GESI FGDs (including questions on gender issues and disability at the community level) separately for men, women, and youths (female and males); and a review of CSO partners in Shinyanga.

For KIIs, the baseline survey purposefully selected and interviewed people who are familiar with the project area to collect primary information/data at the district, division, ward, and village levels using the KII guide. The aim was to gather a deeper understanding of key concepts/insights

¹ Ministry of Finance and Planning, Tanzania National Bureau of Statistics and President's Office - Finance and Planning, Office of the Chief Government Statistician, Zanzibar. The 2022 Population and Housing Census: Age and Sex Distribution Report. Tanzania, December 2022





World Vision

and issues related to health, nutrition, social inclusion, and gender in the target communities. The discussions provided more detailed maternal, infant, and young child nutrition, management of acute malnutrition, and agriculture. The primary KII participants are summarized in **Table 2**. The baseline survey documented case studies of a particular person, or situation within the project area to complement the qualitative data. These cases were identified during the FGDs and later an appointment for a detailed in-depth interview with the selected participants was made.

3.2.4 Incorporating GESI-Assessment

GESI Assessments were incorporated into the qualitative baseline survey methodology, which covered: Access to, ownership of, and use of assets, resources, opportunities, services, benefits, and infrastructure; Decision-making on assets, resources, opportunities, services, and benefits at all levels; Participation-ability to participate and or engage in societal affairs and systems of power that influence and determine development and well-being outcomes; Systems-systems that promote equity and inclusion, and create an enabling environment for equal engagement, and Well-being creating a sense of worth, confidence, dignity, safety, and health free of all forms of inequalities and discrimination.

3.2.5 CSO capacity assessment

The baseline survey utilized the CSO Capacity assessment tool specially designed and adopted from World Vision to assess the capacity of local CSO partners selected in collaboration with WVT.

3.3 Summary of data collection methodology

The summary of baseline data collection methodology of the GROW ENRICH programme is attached below.



3.4 Methods and tools for data analysis

The collected quantitative data were imported from KoboToolbox software, cleaned, and analyzed using Stata (Version 17.0) software. Anthropometric data were analysed using the *"zscore06"* package in Stata software and validated using the ENA for SMART software². Data were summarized using descriptive statistics as briefly highlighted in section 3.3 above, per each

² SMART Methodology (2024). ENA (Emergency Nutrition Assessment) software. Accessed from <u>https://smartmethodology.org/survey-planning-tools/smart-emergency-nutrition-assessment/</u>. Date accessed 24 April 2024







baseline indicator. Specifically, means/medians and standard deviations/interquartile range (SD/IQR) summarized numeric data while frequencies and percentages/proportions will summarize categorical data. The point estimates, particularly percentages, are reported with their corresponding 95% confidence intervals. For the main outcome and output indicators, quantitative data analysis collected in the household survey questionnaire was disaggregated by district, and anthropometric indicators by the child's age (0-5.9 months, 6-23.9 months, and 24-59.9 months) and child's sex (males vs. females). The quantitative results were triangulated with the secondary data and the qualitative findings during report writing to make relevant conclusions, recommendations, and learning.

A thematic analysis approach was used for qualitative data analysis, which entails a process of identifying, coding, and categorizing patterns in the data. The QDA Miner Lite Software was used for the analysis of qualitative data from the GESI assessment. The analysis started by getting familiar with the data by reading the transcriptions several times to obtain a sense of the information collected. After familiarization with transcripts, both the team leader (lead consultant) and another researcher familiar with the topic manually coded the text independently. Relationships between/among coded data were explored and clusters of related codes were compared, re-grouped, and merged to conceptualize an overall picture or narrative of the findings. The results were interpreted based on patterns and trends of information gathered and then triangulated with quantitative data.

3.5 Quality assurance in data collection and analysis

Several measures were taken to make sure that the quantitative and qualitative data collected by research assistants were accurate and of the required quality. Firstly, on each data collection day, supervisors, and research assistants together with the consultancy team held a debriefing session whereby each supervisor met with his/her team to go through the collected data in the tablets to check for completeness and accuracy using the checkpoints pre-designed in the data collection tools.

The quantitative data in the tablets were synchronized to the KoboToolbox Server, which was later retrieved to check for accuracy and completeness. All inconsistencies, such as incorrect weight of the adult or child, necessitated the research assistants to revisit the target enumeration area for re-assessment. The next steps entailed data cleaning concerning baseline indicators and other collected information. A few abnormal anthropometric values were imputed with the average/mean to resolve the observed inconsistencies during the analysis stage. In the qualitative component, the experienced facilitators moderated the FGDs while







experienced note-takers noted down all the discussions and after each FGD and KII, both the facilitators and the note-takers expanded the notes immediately and summarized key issues raised before conducting the next FGD or KII under the supervision of the supervisor. Triangulation of the baseline findings between different data collection methods further enhanced the validity of the final baseline results.

4. Limitations and risk management

The baseline survey had several limitations. The 24-hour recall relies on participants' ability to accurately remember and report the foods and beverages they consumed the previous day. However, this method is prone to recall bias, where participants may not accurately remember or report their food consumption (Fisher et. Al., 2008). Participants may forget or omit certain food items or may include foods consumed outside the 24-hour recall period leading to an underestimation or overestimation of their dietary diversity. Also, this baseline survey may be prone to social-desirability bias where participants may provide answers they perceive as more socially acceptable or desirable, rather than accurately reporting the actual foods they consumed. This bias can be influenced by perceived norms and expectations. To address all potential sources of bias, all research assistants were trained in probing mechanisms as detailed in the baseline survey tools to assist all respondents to understand the questions and provide an appropriate response. The tools were also tested during a pilot test activity before actual data collection, hence enabled the research assistants were understood by respondents. This was imperative to potential for reduce recall bias.

5. Compliance with standards and data protection

5.1 Standards

Ethics approval was obtained from the National Institute for Medical Research and permission from the President's Office, Regional Administration, Local Government (PORALG) authorities, and the Regional Administrative Secretary of the Shinyanga region. Permissions were also obtained from Shinyanga DC and Kishapu DC in addition to the selected wards, villages, and hamlets before the data collection exercise. Informed consent was sought from the prospective respondents. Participant's right to withdraw from the study at any time was explained. There was no cost to the participants to participate in the study. All research team members were required to sign a Confidentiality Agreement before interacting with the participants. The baseline evaluation also adhered to the WV Research Ethics on safeguarding vulnerable children







and adults. All research assistants signed an agreement committing to adhering to the WV Team's (WVT) Child and Adult Safeguarding Behavior Protocol.

5.2 Data Protection

Data were collected electronically using tables with the KoboToolbox software within the WVT servers. Electronic data collection using tablets allows for ensuring completeness and quality data, hence minimizing errors and missing data issues. The system also allows for multiple layers of forms/data protection using randomly generated Keys, which protect device-to-device form transfer and secure the data when downloading from the server to any computer. There is also an additional layer of protection using specific login details for the tablets and limiting server access to only the PIs and the project's data managers. The baseline evaluation team ensured that the data were treated as confidential and stored in a secure location. The consultant worked collaboratively with the WVT data to ensure a smooth data transfer process for the analysis and submission of original and cleaned data files.

6. Findings, analysis, and conclusions

6.1 Findings and Analysis

6.1.1 Participant background characteristics

The baseline survey of the GROW ENRICH programme was conducted among 465 households, 77.4% from Shinyanga DC and 22.6% from Kishapu DC. Most of the children 59.8% (95%CI 54.6, 64.8) were aged 6-23.9 months, and 22.6% (95%CI 18.5, 27.2) were aged 0-5.9 months. More than half of all children 53.5% (95%CI 47.8, 59.2) were males, and 90.3% (95%CI 87.1, 92.8) of the interviewed adults were the biological parents of the index child. About half 49.2% (95%CI 44.7, 53.8) of all adults were aged 20-29 years, and 42.4% (95%CI 38.3, 46.5) were aged 30 years or older. Most, of the participants in this baseline survey, came from male-headed households; 59.8% (95%CI 55.4, 64.0) being the child's father and 9.4% (95%CI 14.8, 25.0) the child's grandfather. Most of the households, 89.9% (95%CI 83.2, 94.1) were visited during the harvest season. The average household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment area was 7.5 people per household size in the project catchment are







shown in **Table 3.** The high fertility in this population was also mentioned by the District Gender Development officer in the KIIs:

"Most women in this area are giving birth without spacing their children. This affects the health of the mother and the children too as the family cannot afford nutritious food for those siblings who were borne one after the other." [DGD_SHY_DC].

Table 3: Participant background characteristics by district of residence (N=465)

			District	n (%)
Characteristics	Total		Shinvanga DC	Kishapu DC
	n	% (95% CI)	360 (77.4)	105 (22.6)
Child age (months)		· ·	· · ·	· ·
0-5.9 months	105	22.6 (18.5, 27.2)	87 (24.2)	18 (17.1)
6-23.9 months age	278	59.8 (54.6, 64.8)	213 (59.2)	65 (61.9)
24-59.9 months age	82	17.6 (12.8, 23.8)	60 (16.7)	22 (21.0)
Child's sex			. ,	
Male	249	53.5 (47.8, 59.2)	186 (51.7)	63 (60.0)
Female	216	46.5 (40.8, 52.2)	174 (48.3)	42 (40.0)
Relation to the child				
Biological mother	420	90.3 (87.1, 92.8)	329 (91.4)	91 (86.7)
Grandma, father, aunt	45	9.7 (7.2, 12.9)	31 (8.6)	14 (13.3)
Religion				
Christian	332	71.4 (61.5, 79.6)	258 (71.7)	74 (70.5)
Muslim	24	5.2 (3.0, 8.6)	18 (5.0)	6 (5.7)
No religion	109	23.4 (15.2, 34.3)	84 (23.3)	25 (23.8)
Age (years)				
<20	39	8.4 (5.8, 12.0)	30 (8.3)	9 (8.6)
20-29	229	49.2 (44.7, 53.8)	184 (51.1)	45 (42.9)
30+	197	42.4 (38.3, 46.5)	146 (40.6)	51 (48.6)
Marital status				
Married	321	69 (59.9, 76.9)	246 (68.3)	75 (71.4)
In union	84	18.1 (11.8, 26.6)	65 (18.1)	19 (18.1)
Not in union	60	12.9 (10.3, 16.1)	49 (13.6)	11 (10.5)
Education				
None	76	16.3 (13.1, 20.2)	59 (16.4)	17 (16.2)
Primary	321	69 (63.8, 73.8)	248 (68.9)	73 (69.5)
Secondary or higher	68	14.6 (10.0, 20.8)	53 (14.7)	15 (14.3)
Ability to read and write				
Able to read only	23	4.9 (2.9, 8.2)	16 (4.4)	7 (6.7)
Able to read and write	327	70.3 (64.6, 75.5)	253 (70.3)	74 (70.5)
Don't know/no answer	115	24.7 (20.2, 29.9)	91 (25.3)	24 (22.9)
Household head				
Child's mother	28	6 (3.9, 9.1)	23 (6.4)	5 (4.8)
Child's father	278	59.8 (55.4, 64.0)	218 (60.6)	60 (57.1)
Child's grandmother	66	14.2 (11.5, 17.3)	52 (14.4)	14 (13.3)
Child's grandfather	90	19.4 (14.8, 25.0)	64 (17.8)	26 (24.8)
Child's aunt	3	0.6 (0.2, 2.0)	3 (0.8)	0 (0.0)
Number of people in the household				
<7	232	49.9 (43.2, 56.6)	187 (51.9)	45 (42.9)
7+	233	50.1 (43.4, 56.8)	173 (48.1)	60 (57.1)
Adult males 15+ years in the household				
None	21	4.5 (2.9, 7.1)	17 (4.7)	4 (3.8)
One	249	53.5 (47.2, 59.8)	193 (53.6)	56 (53.3)
Two or more	195	41.9 (35.7, 48.4)	150 (41.7)	45 (42.9)
Adult females 15+ years in the household				
None	6	1.3 (0.5, 3.6)	6 (1.7)	0 (0.0)
One	221	47.5 (42.4, 52.7)	169 (46.9)	52 (49.5)
Two or more	238	51.2 (46.3, 56.0)	185 (51.4)	53 (50.5)
Male children <5 years in the household				







Characteristics		Total	District, n (%)	
		TOLAI	Shinyanga DC	Kishapu DC
	n	% (95% CI)	360 (77.4)	105 (22.6)
None	134	28.8 (24.9, 33.1)	112 (31.1)	22 (21.0)
One	215	46.2 (41.7, 50.8)	158 (43.9)	57 (54.3)
Two or more	116	24.9 (21.1, 29.2)	90 (25.0)	26 (24.8)
Female children <5 years in the household				
None	137	29.5 (23.2, 36.5)	96 (26.7)	41 (39.0)
One	212	45.6 (40.1, 51.2)	173 (48.1)	39 (37.1)
Two or more	116	24.9 (20.0, 30.7)	91 (25.3)	25 (23.8)
Male children 5-15 years in the household				
None	216	46.5 (41.2, 51.8)	170 (47.2)	46 (43.8)
One	135	29 (25.1, 33.3)	106 (29.4)	29 (27.6)
Two or more	114	24.5 (19.9, 29.8)	84 (23.3)	30 (28.6)
Female children 5-15 years in the household				
None	223	48 (43.2, 52.8)	179 (49.7)	44 (41.9)
One	158	34 (29.6, 38.7)	118 (32.8)	40 (38.1)
Two or more	84	18.1 (14.2, 22.7)	63 (17.5)	21 (20.0)
Season				
Pre-harvest	7	1.5 (0.4, 5.2)	2 (0.6)	5 (4.8)
Post-harvest	35	7.5 (3.6, 15.2)	31 (8.6)	4 (3.8)
Harvest	418	89.9 (83.2, 94.1)	322 (89.4)	96 (91.4)
Farm preparation	5	1.1 (0.1, 7.7)	5 (1.4)	0 (0.0)

In the qualitative component, in total, we conducted 21 types of FGDs (a total of 7 in Kishapu and 14 in Shinyanga DC) and approximately 26 KIIs (9 from Kishapu DC and 16 from Shinyanga DC which includes one CSO (**Table 10 in Appendix I**).

6.1.2 Overall Outcome, Indicator 1: % increase of funding for health and nutrition services from KEN, TZA national budgets & Puntland regional budgets

Indicator	Tanzanian Budget 2024/25	Target
% increase in funding for health and nutrition services from national & County budgets	Total cost for MNAP II for the year 2024/25: TZS 104,867,379,443 (USD 39,133,150)	

The government of Tanzania coordinated the implementation of the National Multisectoral Nutrition Action Plan (NMNAP) 2016–2021, which indicated that the intended nutrition targets were on track primarily due to increased accountability, commitment, and political will at all levels. To show the commitment, the government has developed five-year NMNAP-II strategic plans which reflect continued commitment to address malnutrition by the government. Prioritization of nutrition in the national plans has gone along with increased resources through national budgets for both specific and nutrition-sensitive interventions. The total cost of the NMNAP II in the year 2024/2025 is TZS 104,867,379,443 (USD 39,133,150) (PMO, 2022).



6.1.3 Overall Outcome, Indicator 2: % of children under five years of age with a reduction in wasting







Indicator	Baseline survey value	Target Values at Design Phase	TDHS 2022
% of children under five years of age with a reduction in wasting	3.6% (95%Cl 1.8- 7.2, n=13/360) Boys: 5.2%, Girls: 1.8% With disability: 10.9% vs. 2.3% without	<5%	3.3%

The overall prevalence of wasting (global acute malnutrition, GAM) was 3.6% (95%Cl 1.8-7.2, n=13/360) (**Figure 1**)Error! Reference source not found.. Furthermore, the prevalence of moderate acute malnutrition (MAM) was 2.5% (95%Cl 1.0, 5.9) while that of severe acute malnutrition (SAM) was 1.1% (95%Cl 0.3, 3.5). The prevalence of GAM did not differ significantly by the child's age and sex (p>0.05), but is higher than 3.3% in Tanzania, but lower than for the Shinyanga region (1.3%) reported in the recent 2022 TDHS (MoH et. al., 2022). Prevalence of wasting was higher in males 5.2% (95% Cl 2.5, 10.3, n=10/194) than in females (1.8%, 95%Cl 0.6, 5.5, n=3/166), p=0.11 (

Figure 2 and **Table 2** in **Appendix I**). Children with any form of disability had a significantly higher prevalence of GAM (10.9%, n=6/55) than 2.3% (7/305) in those without any form of disability (p=0.003) (Error! Reference source not found.**Table 2** in **Appendix I**).

On the other hand, the prevalence of overweight was 6.4% (95%Cl 4.1, 9.8) and underweight 10.0% (95%Cl 6.4, 15.3). The prevalence of wasting/thinness and overweight were similar across child age groups; (3.6% and 3.7% for wasting and 6.5% vs. 6.1% for overweight) in children 6 to 23.9 months vs. 24 to 59 months, respectively.



Figure 1: Prevalence of anthropometric indicators, overall and by district (n=360)











6.1.4 Overall Outcome Indicator 3: % of children under 5 years with a reduction in stunting

Indicator	Baseline survey value	Target Values at design Phase	TDHS 2022
% of children under 5 years with a reduction in stunting	30.3% (32%	30%

The overall prevalence of stunting was 30.3% (95%Cl 23.8, 37.6, n=110/390), **Figure 1**. The prevalence of stunting (30.3%Error! Reference source not found.) was significantly (p=0.03) h igher in males (35.1%, 95%Cl 24.9, 46.8) than in females (24.7%, 95%Cl 17.6, 33.5) (

Figure 2Error! Reference source not found. and **Table 2** in the appendix I). The corresponding national estimates show that overall, 30% of children under age 5 are stunted (MoH et. al., 2022). Stunting was also more common among older children; 36.6% (95%CI 25.2, 49.7) among those aged 24 to 59 months vs. 28.4% (95%CI 22.4, 35.3) among younger children 6 to 23 months, though this difference was not statistically significant (

Figure 2Error! Reference source not found. and **Table 2** in the **appendix I**). The prevalence of stunting among children with any form of disability: (34.6%) was not significantly different from 29.5% among those with no disability (p=0.45).

During the validation meeting, participants agreed with the result of Kishapu DC having a high prevalence of stunting and wasting due to its semi-desert environment while Shinyanga DC was mentioned to have a favourable environment for growing food rich in protein e.g. groundnut. In the validation meeting held with participants from the project area; the reason for stunting more on male children than girls was that male children from two years and above in the project area would go to herd animals while female children mostly stay at home to do household chores hence has time to eat. A higher prevalence of stunting in older children (24-59 months) may be







explained by inadequate quality or quantity of food given to children during the weaning period (Mtonga & Nyaruhucha, 2022) or inadequate dietary diversity at the household level.

6.1.5 Outcome Module 1, Indicator 1: # action plan per country, including monitoring frameworks, aligned to African Regional Nutrition Strategy 2015-2025 (ARNS)

The government of Tanzania uses the National Multisectoral Nutrition Action Plan (NMNAP II) 2021/22 – 2025/26, which is aligned with objectives of several national, regional, and global initiatives, such as the East African Development Vision 2050; SADC Regional Food and Nutrition Strategy 2021; The Scaling-Up Nutrition (SUN) Movement launched in 2012; Sustainable Development Goals (SDGs) 2030; and the African Union Agenda 2063 (PMO 2022). As stipulated in this document, "NMNAP II focuses on strengthening further and scaling up successful interventions of NMNAP by critically addressing the identified gaps and by strengthening the enabling environment for multisectoral nutrition actions. The action plan also addresses the importance of engaging the private sector to strengthen nutrition across the related sectors."

6.1.6 Outcome Module 1, Indicator 3: % Increase of funding provided annually by sub-national governments for local health and nutrition facilities in target districts

According to results from secondary data obtained during the documentary review in the baseline study, within the Shinyanga region, a total of TZS 879,838,010/= was reported to be allocated for both health and nutrition in the year 2023/24 and TZS 16,678,800/= was allocated for nutrition only.

The regional budget for Nutrition is low (TZS. 16,678,000) compared to the district level (TZS. 90,324,594 Kishapu DC, and TZS. 93,805,044.44 Shinyanga DC). This is because the region has a separate budget for nutrition activities managed at the regional level, and the districts also have their budget allocated depending on their income and requirements. The budget allocation depends on the unit's need and requirement, i.e., region, district, and HF, and each unit manages its budget.

Partners contribution: There is no budget allocated directly to the region or the districts to support nutrition activities from partners. However, most partners only share their planned activities to support the health and nutrition sectors within the region or districts where they operate, but they do not share any budget.

However, the allocated budget for districts and health facilities was reported insufficient, and some health facilities do not allocate a specific budget for nutrition only.









Financing the NMNAP II will require intensive efforts from the Government of Tanzania, Development Partners, Civil Society Organizations, and the private sector. However, the major contributor to these nutrition priorities will be the Government of Tanzania. Also, to show its commitment, the government has requested the councils that there should be a budgetary allocation in each council of TZS 1,000/= per year for each child under 5. However, this amount which is contributed annually per child is perceived by key stakeholders involved below:

"Low budget for health issues, for example now we allocate TZS. 1,000/-per child per year from Kishapu council "DCDO_KISHAPU DC

"The allocated budget for children under five on nutrition and health services is 1000 Tshs per under five child year which is not enough" [HCW_NIDO_SHY_WARD 1]

At the validation meeting, health workers proposed the budget be increased to 2000Tsh. However, the officials from the districts argued that the total funds they get are insufficient to assign 2000Tsh to each child on nutrition. They have other issues to take care of with the same funds they are collecting. They all agreed that the political will is there but not enough funds.

The nutrition budget allocated at all dispensaries and health centers in the district is low compared to the district nutrition budget because of the low source of funds collected at the facility and low basket fund. Even the collected income is used mostly for running all health services and requirements, Therefore, the facility might not have the opportunity to allocate a budget for nutrition services. There is a need to prioritize and promote health facilities to allocate a budget for nutrition and ensure increased sources of funds at the health facility levels. The national level allocates regional and district budgets and supports them to accommodate nutrition services.







6.1.7 Outcome Module 1, Indicator 4: % increase of key government officials at national and sub-national levels who understand and actively advocate (participate) for the application of basic nutrition and health rights as enshrined in international and local laws

	Kishapu DC	Shinyanga DC
:% increase of key government officials at	Regional level Two (2)	Three (3) professionals: District Nutrition
national and sub-national levels who	professionals: RMO &	Officer, Social welfare officer, and District
understand and actively advocate	Regional Nutrition Officer	Medical Officer
(participate) for the application of basic	Two (2) District Nutrition	
nutrition and health rights as enshrined in	Officers and a District	
international and local laws	Medical Officer	

Representatives from the Region Health Management team meet annually for nutrition-related advocacy meetings that are also attended by district representatives. Also, there are advocacy meetings conducted every quarter for nutrition and health issues as reported by Kishapu DC. According to secondary data collected, there are two (2) health and nutrition professionals in the region: the Regional Medical Officer and Regional Nutrition Officer who oversee the nutrition activities in the region.

6.1.8 Output 1.1, Indicator: # of government institutions that have integrated national and sub-national gender-responsive health and nutrition policies and protocols into their agriculture, nutrition, health and sanitation sector plans

The activities in the Shinyanga region, and across all eight (8) departments including Health (2), Nutrition (2), Agriculture (2), and Irrigation (2) in Shinyanga DC and Kishapu DC, are governed by two approved policies.

- Term of reference (TOR) 2018-*Muongozo wa uendeshaji wa vikao vya tathmini ya mikataba ya lishe Nchini* (guiding the evaluation of all nutritional contracts in the country/region)
- The National Multisectoral Nutrition Action Plan (NMNAP II) 2021/22 2025/26 (PMO, 2022).

6.1.9 Outcome Module 2, Indicator 1: % of children<6 months who are exclusively breastfed (EBF)

Indicator	Baseline Survey Value	Target Values at design Phase	TDHS 2022
% of children< 6 months who are exclusively breastfed	72.6% (95%CI 63.5, 80.2)	69%	64%

The overall prevalence of EBF was 72.6% (95%CI 63.5, 80.2) and it was slightly higher among male children 73.2% (95%CI 59.5, 83.6 n=41/56)) than females 72% (95%CI 59.9, 81.6 n=36/50), though not statistically significant (p=0.89) (**Figure 3**). Also, exclusive breastfeeding prevalence was not statistically different in children with any form of disability (81.8%) vs. 71.6% in those without disability (p=0.47). From the validation meeting, it was discussed that male children







grow slowly and hence breastfed more. Also, male children are valued more as future heirs. Breastfeeding in the project's catchment area is universal as all 106 mothers with children <6 months of age have ever breastfed their children and breastfed in the previous 24 hours preceding the survey. In Tanzania, 64% of children under age 6 months are exclusively breastfed vs. 76.2% in the Shinyanga region (MoH et. al., 2022). This means that the prevalence of EBF in the Shinyanga region is slightly higher than 72.6% among children in this baseline survey. Figure 3: Prevalence of exclusive breastfeeding by district and child's sex (n=106)



Regarding other EBF practices, 68.9% (95%CI 54.5, 80.4) of the mothers-initiated breastfeeding immediately/within 1hr after birth (64.8% in Shinyanga DC vs. 88.9% in Kishapu DC), 84.9% (95%CI 74.5, 91.5) of the children received skin-to-skin contact, and 21.7% (95%CI 14.2, 31.7) squeezed and throw away colostrum (for reasons such as being poisonous (n=9/23) or being advised by a family member (n=4/23). Also, 20.8% (95%CI 14.4, 28.9) of the mothers said the child was given anything other than breast milk in the first two days after birth, and of these, most (77.3%, 95%CI 55.0, 90.4) were given plain water (**Table 3 in Appendix I**).

While the benefits of EBF are well known to the participants, there are existing myths in the community that may discourage women from practicing EBF such as the one cited below:

"The community believes that the colostrum (mother to breastfeed within one hour after delivery is dirty and newborn is not breastfed by believing that the newborn will get sick with yellow fever." [HCW_SHY_WARD 1]







6.1.10 Outcome Module 2, Indicator 2 % of women aged 15-49 who used at least 4 antenatal

examinations (ANC)

Indicator	Baseline Value	Target Values at the Design Phase	TDHS 2022
% of women aged 15- 49 who used at least 4 antenatal examinations (ANC)	81.2% (95%CI 75.5, 85.8)	75%	65%

Attending \geq 4 ANC visits is crucial for the health of a mother and her child. During these visits, the health of the mother and the child is checked, and the mother is prepared for safe delivery by providing essential medical monitoring, screening, and counselling on nutrition and lifestyle. In the household survey, of the 405 women who ever attended ANC, 81.2% (95%CI 75.5, 85.8) attended four or more visits (80.3% in Shinyanga DC and 84.4% in Kishapu DC) (**Figure 4**). These estimates are much higher than the national estimate where 65% of WRA in Tanzania vs. 44.9% in the Shinyanga region received \geq 4 ANC visits as recommended (MoH et. al., 2022)³.

Shinyanga Region is one of the Safe Births Bundle of Care Project operating in the Western Zone in Tanzania (information obtained from Hydom International Conference 34th May 2024) (Ersdal et al., 2023), which might have had a positive implication to the coverage of ANC services in the region and districts. In some of the FGDs, reasons for the few women not attending these important visits were mentioned:

"When I was pregnant, I attended the clinic only twice because the village where I live is very far from the clinic - about ten kilometers, so I did not have the means to come and go back." [WRA _U2-SHY

WARD 1]

"...in fact, I attended the clinic about three times, but I gave birth at home, due to the long distance to the facility. After giving birth, I went to the hospital for a check-up." [WRA_U2-SHY WARD 1].

"Long distance to reach the facility to access the services among the pregnant women with children affects their health, nutrition, and social inclusions." [HCW_NIDO_SHY_WARD 1; WRA-U5_KISHAPU_DC; DNFP_SHYDC]

From the validation meeting, it was mentioned that the outreach activities are available but focussing on child vaccination and not ANC services.









Figure 4: Prevalence of \geq 4 ANC visits by district (n=405)

Regarding Iron and Folic Acid (FEFO) supplementation, of the 420 biological mothers in the baseline survey, 89.5% (95%CI 83.9, 93.3) had received FEFO in the recent pregnancy, of which 43.4% (95%CI 34.9, 52.2) took the supplement for \geq 4 months while pregnant. The majority 96.4%, (95%CI 93.1, 98.2), saw anyone for ANC, of which 81.2% (95%CI 75.5, 85.8) had attended \geq 4 ANC visits, and a quarter (25.4%, 95%CI 17.3, 35.7) attended first ANC between 1-2 months of pregnancy. The reason given during the validation meeting was the mother's failure to recognize early if she was pregnant. Of the women who sought ANC services, only 16.3% (95%CI 16.3, 23.7) received all eight (8) components. Among 207 (49.3%) women with TT immunization recorded in the ANC card 65.7% (95%CI 56.2, 74.1) received \leq 2 injections (Table 4 in Appendix I). The reasons for the few women receiving required ANC services mentioned during the validation meeting were a shortage of medicines and medical equipment and a shortage of health workers resulting in busy schedules among few available staff and therefore can neglect to offer other services to women.

Regarding **birth and postnatal care**, of all 420 biological mothers of the index child, 95.7% (95%CI 93.3, 97.3) gave birth at a health facility and most 77.6%, (95%CI 70.4, 83.5) were attended by a nurse (72% in Shinyanga DC vs. 61% in Kishapu DC). Nearly all (96.4%, 95%CI 93.6, 98.0) of the mothers reported that anyone checked their health while still at the health facility, while 97.7% (95%CI 95.5, 98.9) said the child was checked while at the facility. Of those who said the child was checked, 56.5% (95%CI 49.8, 63.0) were checked by a nurse/midwife and 35.4% (9%CI 29.2, 42.2) by a doctor (**Table 5** in **Appendix I**).







6.1.11 Output 2.1, Indicator 1: # of health facilities in target districts providing gendersensitive primary care in nutrition and health and SRHR

Within Kishapu DC there are a total of 71 health facilities in the district, of which 60 (84.5%) provide SRHR services. Within Shinyanga DC there are 49 facilities (43 government facilities and 6 private facilities), and they all provide SRHR services. However, prevention, detection, and management of reproductive cancers, especially cervical cancer and information, counselling, and services for subfertility and infertility are provided in less than 10 facilities in Shinyanga DC. In Kishapu DC, safe abortion services and prevention, detection and management of reproductive cancers, especially cervical cancer are also provided in less than 10 facilities. The document below summarizes the number of health facilities providing essential SRHR elements by district.



6.1.12 Output 2.1, Indicator 2: # of increased yearly nutrition & SRHR consultations in H&N facilities in project areas

Indicator	Baseline Values	Target
# of increased yearly nutrition & SRHR consultations in H&N facilities in project	Total SRHR consultations, 62339	TBD
areas	Total Nutrition consultations Shinyanga region in 2023: 80,254	

Findings suggest an increase in annual consultations for both SRHR and nutrition. In 2023, there were SRHR 62,339 consultations and 80254 nutrition consultations in Shinyanga and Kishapu project's catchment area . Women who reserved folic acid supplements and children who reserved vitamin A supplements were the indicators with many consultations. Regarding the SRHR consultation, antenatal care had a higher number of consultations. Additional information is contained in the embedded document below.



Issues discussed regarding the provision of SRHR were the government having no guide for reporting SRHR and SRHR being of less priority to some facilities. It is therefore recommended that; an advocacy meeting should be conducted with health officers and professionals from region, district and Ward/village levels, to advocate the strengthening, availability of guidelines and provision of SRHR services in all health facilities.







6.1.13 Output 2.2, Indicator 1: # of number of community-based organizations/groups with the capacity to prevent, monitor and address malnutrition from a gender perspective

The baseline evaluation assessed five CBOs through Key informant and secondary data reviews. CBO that specifically focus on nutrition interventions and are able to adopt a gendersensitive approach for nutritional needs of women and girls .It Kivulini Women's Rights Organization, available in the project's catchment area was assessed through capacity assessment tool Kivulini CSO capacity assessment results are summarized in section 6.1.19.. Kivulini is an implementing partner for World Vision Tanzania, which works with the GROW Project implemented in the Shinyanga region. The organization works on nutrition, genderbased violence and SRHR for adolescent girls, boys, and young mothers.

6.1.14 Outcome Module 3, Indicator 1: % of children aged 6-23 months receiving minimum acceptable diet

Indicator	Baseline survey value	Target Values at the Design Phase	TDHS 2022
% of children in target districts aged 6-23 months receiving minimum acceptable diet	13.1%	19%	9%

Overall, only 13.1% (95%CI 9.5, 17.8, n=36/275) of all children 6-23 months in the households achieved the acceptable diet (MAD) (12.3% in Shinyanga DC vs. 15.6% in Kishapu DC). (

Figure 5). The proportion was slightly higher in girls (16.4%) than in boys (10.5%) and in those without any form of disability (14.5%) vs those with disability (5%), though these associations were not statistically significant (p>0.05). The prevalence of MAD was higher than the national estimate (9%). From the validation meeting, it was mentioned that men sell food produced for consumption and it is a prestige for a family to have many children even though they can't take proper care of them, which both are likely to affect the diet of children in the household.

From the FGDs with WRA with children under 2 years, the majority of them mentioned lack of money to buy diverse types of food as the reason for not using appropriate food during complementary feeding as narrated below:







"The difficult situation of the family's economy; the mother may be aware of the best types of food, but she does not have the money to buy those foods." [WRA _U2-SHY WARD 1]

"Due to the very low family's economy, you lack money to buy food with nutrition. So, there is no way to get mixed food for the child." [WRA-U2-KISHAPU DC; WRA-U2-SHY-WARD2]

"...many families, the economy is very low, you find that families eat only one meal, now you find that the child eats any food without knowing whether there are enough nutrients or not..." [WRA _U2-SHY WARD 1].

This was also mentioned during the KIIs with different stakeholders (Father-in-law (FL), Ward Executive Officer (WEO)) as narrated below:

"Poor family's economy; the mother may be aware of the best types of food but lack the money to buy those foods." FL_SHY_WARD1; WEO_SHY_WARD 2]

Also, in most of the KIIs, they mentioned that mothers in laws are the one taking care of the young children as their mothers must work in the field, in this case, they are fed with what is available at home:

"The baby 6 and above months stays at home with their mothers-in-law and most of them do not take breastfeeding from their mother timely and their mother-in-law is providing food to children hence affecting child nutrition and health" HCW_WARD 1; DNFP_KISHAPU]

"The decision of the mother-in-law, there are times when the family does not provide sufficient cooperation regarding the advised diet. For example, the mother-in-law says why in the past we gave the children these foods and they were healthy." [WRA_U2-SHY WARD 1].







Figure 5: Percentage distribution of minimum acceptable diet (MAD), overall and by district (n=275).



6.1.15 Output 3.1 Indicator 1# of HH growing nutrient-rich crops

Indicator	Baseline survey value	Target Values at Design Phase	TDHS 2022
# of HH growing nutrient-rich crops	31.8%, 95%CI 23.9	-	-

Among all households in the baseline survey, 46.5% (95%CI 38.3, 54.8) have ever heard of biofortified crops (47% in Shinyanga DC vs. 43.8% in Kishapu DC) and 30.1% (95%CI 22.8, 38.6) said any member of the household had ever consumed meals prepared of bio-fortified crops. The commonly used bio-fortified crops were orange flesh sweet potatoes (93.6%, 95%CI 83.2, 97.7) and orange maize (19.3%, 95%CI 11.4, 30.8). The most common reason cited by those who never consumed bio-fortified foods is not knowing anything about them (74.3%, 95%CI 65.4, 81.6). Overall, less than a third (31.8%, 95%CI 23.9, 41.0, n=148/465) of all households grew biofortified foods (mostly orange flesh sweet potato (95.3%), and orange maize (20.9%). Most (92.6%, 95%CI 86.0, 96.2, n=137/148) of those who grew these foods consumed them. Knowledge of the benefits of consuming meals prepared using bio-fortified crops is low. For instance, only 19% of all respondents said they provide essential micronutrients to improve nutrition and health, and 13.5% said they are good, especially for children, and pregnant and breastfeeding women (**Table 4**).

During the FGDs and KIIs, few members knew about fortified food and its benefits as narrated in one of the farmer's FGDs.







"It helps improve the nutritional status of our children's meals." [Farmers_Kishapu]; this was supported by the Ward Executive officer (WEO) in the same area: "Regarding food enrichment, we have a machine in our community for food fortification from a stakeholder (SANKU) but there is a very small number of users in Mwakipoya ward as the community has not been trained on the importance of food fortification." [WEO_KISHAPU DC].

Perceived **myths surrounding the use of food fortification** were mentioned by District Community Development Officers (DCDO) and Faith leaders (FL):

"Fortified food is believed to cause health problems, like reducing male reproduction and it is not as strong as the traditional foods." [DCDO_KISHAPU DC]; [Farmers_Kishapu] "We believe that fortified food supplements destroy male power." [FL-KISHAPU-DC].

However, a lack of community awareness on the importance of fortified foods was mentioned to be the reason the community was not using fortified foods as narrated below by the District Nutrition Focal person (DNFP) and faith leader (FL).

"...people in our community are not aware of the importance of food fortification as they don't see the difference in consumption of food that has been fortified and that which is not fortified. Fortified foods are still taken very sparingly." [DNFP_SHYDC; FL_SHYDC_ WARD1].

"Usually, the Sukuma tribe practices storage and not fortification, for example, the Sukuma tribe dry sweet potatoes (michembe), mlenda, and cowpea leave (nsansa) through sunlight so they can last for a long time, unfortunately, the sun dissolves all nutrients in that food. "FL_SHY_SHYDC_ WARD1; FL-KISHAPU-DC

	Total		District, n (%)	
Characteristics			Shinyanga DC	Kishapu DC
	n	% (95% CI)	360 (77.4)	105 (22.6)
Ever heard of biofortified crops				
Yes	216	46.5 (38.3, 54.8)	170 (47.2)	46 (43.8)
No	241	51.8 (43.7, 59.8)	184 (51.1)	57 (54.3)
Do not know	8	1.7 (0.7, 4.2)	6 (1.7)	2 (1.9)
Any members of the household consume meals				
prepared of bio-fortified crop(s)				
Yes	140	30.1 (22.8, 38.6)	110 (30.6)	30 (28.6)
No	311	66.9 (58.4, 74.4)	240 (66.7)	71 (67.6)
Do not know	14	3 (1.4, 6.4)	10 (2.8)	4 (3.8)
Bio-fortified crop used to prepare the				
meal/consumed (n=140)*				
Orange Flesh Sweet Potato (OFSP)	131	93.6 (83.2, 97.7)	101 (28.1)	30 (28.6)
Orange Maize	27	19.3 (11.4, 30.8)	22 (6.1)	5 (4.8)

Table 4: Bio-fortified foods and crop production







			District, n (%)	
Characteristics		lotal	Shinyanga DC	Kishapu DC
	n	% (95% CI)	360 (77.4)	105 (22.6)
Other foods	1	0.7 (0.1, 5.3)	1 (0.3)	0 (0.0)
Reasons why not consume meals prepared of bio-				
fortified crop(s) (n=311)*				
Do not know anything about biofortified crops	231	74.3 (65.4, 81.6)	176 (48.9)	55 (52.4)
No one told me or helped me to grow				
biofortified crops	14	4.5 (2.0, 9.7)	13 (3.6)	1 (1.0)
I do not have land or enough land to grow				
biofortified crops	27	8.7 (4.5, 16.2)	27 (7.5)	0 (0.0)
Household members did not like it	1	0.3 (0.0, 2.6)	1 (0.3)	0 (0.0)
Other reasons	52	16.7 (10.2, 26.1)	37 (10.3)	15 (14.3)
Household grew bio-fortified crops in the past				
season				
Yes	148	31.8 (23.9, 41.0)	115 (31.9)	33 (31.4)
No	317	68.2 (59.0, 76.1)	245 (68.1)	72 (68.6)
Bio-fortified crops grown in the past season				
(n=148)*				
Orange Flesh Sweet Potato (OFSP)	141	95.3 (88.9, 98.1)	108 (30.0)	33 (31.4)
Orange Maize	31	20.9 (12.1, 33.8)	24 (6.7)	7 (6.7)
What was done with the produce				
Orange Flesh Sweet Potato (OFSP)				
Mainly consume	137	92.6 (86.0, 96.2)	105 (29.2)	32 (30.5)
Mainly sell	1	0.7 (0.1, 5.2)	0 (0.0)	1 (1.0)
About equally consume and sell	3	2 (0.7, 6.0)	3 (0.8)	0 (0.0)
We don't grow/NA	7	4.7 (1.9, 11.1)	7 (1.9)	0 (0.0)
Iron Beans				
Mainly consume	1	0.7 (0.1, 5.5)	1 (0.3)	0 (0.0)
Mainly sell	2	1.4 (0.3, 5.9)	2 (0.6)	0 (0.0)
We don't grow/NA	145	98 (93.4, 99.4)	112 (31.1)	33 (31.4)
Orange Maize				
Mainly consume	27	18.2 (10.3, 30.3)	21 (5.8)	6 (5.7)
Mainly sell	1	0.7 (0.1, 5.2)	0 (0.0)	1 (1.0)
About equally consume and sell	3	2 (0.4, 9.6)	3 (0.8)	0 (0.0)
We don't grow/NA	117	79.1 (66.2, 87.9)	91 (25.3)	26 (24.8)
Zinc Rice				
Mainly consume	1	0.7 (0.1, 5.5)	1 (0.3)	0 (0.0)
Mainly sell	3	2 (0.6, 6.4)	2 (0.6)	1 (1.0)
We don't grow/NA	144	97.3 (92.9, 99.0)	112 (31.1)	32 (30.5)
Other sources of biofortified crops eaten (other				
than what you grow in your plot) (n=148)*				
Gift from neighbor	22	14.9 (7.5, 27.3)	18 (5.0)	4 (3.8)
Purchased	38	25.7 (16.9, 37.0)	30 (8.3)	8 (7.6)
Food aid	2	1.4 (0.2, 10.6)	2 (0.6)	0 (0.0)
Other sources	21	14.2 (6.0, 29.9)	20 (5.6)	1 (1.0)
Benefits of consuming meals prepared using bio-				
fortified crops (n=465)*				
They provide essential micronutrients to				
improve nutrition and health.	89	19.1 (12.8, 27.7)	68 (18.9)	21 (20.0)
Biofortification is most beneficial to groups				
who are vulnerable to deficiencies	42	9 (5.2, 15.3)	31 (8.6)	11 (10.5)
Its greatest benefit is in contributing to the				
prevention of micronutrient deficit	42	9 (5.0, 15.7)	31 (8.6)	11 (10.5)
Biofortified crops are good, especially for				
children, pregnant and breast-feeding women	63	13.5 (8.5, 20.8)	47 (13.1)	16 (15.2)
Other benefits	19	4.1 (1.9, 8.5)	18 (5.0)	1 (1.0)

* These are multiple-response questions; hence the reported percentages will not tally to 100.







6.1.16 Output 3.2, Indicator 2: % of HH with acceptable Household Dietary Diversity Score (HDDS)

Indicator	Baseline survey value	Target Values at design Phase	TDHS 2022
% of HH in target districts with acceptable HH Dietary Diversity Score (HDDS)	3.4% (95%CI 1.5, 7.5),	-	-

Overall, 3.4% (95%CI 1.5, 7.5) of all households had high HDDS (consumed \geq 9 food groups), 4.2% in Shinyanga DC vs. 1%% in Kishapu DC. The median (interquartile range, IQR) was 4 (3, 6) food groups per household. The common food groups across districts in the baseline survey were cereals (98.1%, 95%CI 96.4, 99.0), white roots and tubers (75.5%, 95%CI 69.4, 80.7), and vegetables (91.4%, 95%CI 87.0, 94.4). (**Table 5**). There were no statistically significant differences in the HDDS by the child's gender and having any form of disability. However, the proportion was higher in males (4%) than females (2.8%), p-value=0.50, and those with any disability (4.6%) than those who did not (3.3%), p=0.05.

Characteristics		Total	District, n (%)		
-	(n=465)		Shinyanga DC	Kishapu DC	
-	n	% (95% CI)	360 (77.4)	105 (22.6)	
Food groups consumed in the past 24					
hours (n=465)*					
Median HDD score (IQR)	465	4 (3, 6)	4 (3, 6)	4 (3, 6)	
Cereals	456	98.1 (96.4, 99.0)	353 (98.1)	103 (98.1)	
White roots and tubers	351	75.5 (69.4, 80.7)	269 (74.7)	82 (78.1)	
Vegetables	425	91.4 (87.0, 94.4)	331 (91.9)	94 (89.5)	
Fruits	54	11.6 (7.0, 18.6)	45 (12.5)	9 (8.6)	
Meat	36	7.7 (5.0, 11.7)	28 (7.8)	8 (7.6)	
Eggs	7	1.5 (0.7, 3.3)	6 (1.7)	1 (1.0)	
Fish and seafood	95	20.4 (14.7, 27.7)	60 (16.7)	35 (33.3)	
Legumes, nuts and seeds	117	25.2 (18.8, 32.7)	91 (25.3)	26 (24.8)	
Milk and milk products	75	16.1 (11.5, 22.2)	61 (16.9)	14 (13.3)	
Oils and fats	239	51.4 (46.6, 56.2)	184 (51.1)	55 (52.4)	
Sweets/sugar	172	37 (28.4, 46.4)	135 (37.5)	37 (35.2)	
Spices, condiments, beverages	67	14.4 (7.7, 25.4)	60 (16.7)	7 (6.7)	
Household dietary diversity					
Low HDDS (≤4 food groups)	259	55.7 (48.1, 63.1)	204 (56.7)	55 (52.4)	
Medium HDDS (5-8 food groups)	190	40.9 (33.8, 48.3)	141 (39.2)	49 (46.7)	
High HDDS (≥9 food groups)	16	3.4 (1.5, 7.5)	15 (4.2)	1 (1.0)	

Table 5: Household Dietary Diversity

* These are multiple-response questions; hence the reported percentages will not tally to 100.

6.1.17 Output 3.2, Indicator 1: % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria







Indicator	Baseline survey value	Target Values at Design Phase	TDHS 2022
output 3.2 % and # of families with adequate knowledge and skills in nutrition in the first 1000 days as per MIYCF minimum criteria	MDD (≥5 food groups): 22.9% (95%Cl 18.4, 28.1), (n=63/275) MMF (≥4 times): 8.4% (95%Cl5.3,12.9), (n=23/275) 89.5% (376/420) of mothers consumed FEFO supplements in their last pregnancy.		MDD Tanzania: 18.8% Shinyanga:7.1% MMF Tanzania: 33% Shinyanga: 15.4% (TDHS 2022, all children 6-23 months)

Of all 275 mothers with children 6-23 months, 98.9% (95%CI 96.7, 99.6) ever breastfed their children. The three children who have never been breastfed were due to the mother or the child being sick. Also, 74.3% (95%CI 66.8, 80.5) breastfed their child a day preceding the survey. The most common foods the child ate yesterday include thin porridge (88.4%), plain water (88%), solid, semi-solid, or soft foods (63.6%), of which 52.7% (95%CI 45.7, 59.6) ate these foods for 3 or more times yesterday. Regarding the food groups the child ate yesterday, the most common were bread, rice, noodles, porridge, or other foods made from grains (93.5%), and dark green, leafy vegetables (53.8%, 95%CI 45.6, 61.8), and white potatoes, white yams, manioc, cassava, or any other foods made from roots (38.9%, 95%CI 30.4, 48.2) (**Table 6** in **Appendix I**). The **minimum dietary diversity (MDD)**, i.e., consuming \geq 5 of the 8 recommended food groups was 22.9% (95%CI 18.4, 28.1, n=63/275) while 8.4% (95%CI 5.3, 12.9, n=23/275) had achieved the minimum meal frequency of \geq 4 times. There were no significant differences in the proportion of MDD by the child's sex (23.4% in boys vs. 20% in girls, p=0.64) and disability status (24.2% with disability vs. 21.3% without disability, p=0.57). Likewise, MMF did not differ by sex and disability status.

While the prevalence of MDD was higher than the national estimate (18.8%), it was much lower than the regional estimate (15.4%). Furthermore, the prevalence of **MMF** was lower than the national (33%) and regional estimates (MoH et. al., 2022). Reasons for not using appropriate food during complementary feeding are summarized in section 6.1.13 triangulated concerning the MAD indicator.







Figure 6: Percentage distribution of MDD and number of times child ate solid, semisolid, or soft foods yesterday, overall and by district (n=275).



Abbreviation: MFF, minimum meal frequency. MDD, minimum dietary diversity. MDD was calculated as the proportion of children 6-23 months consuming five of eight food groups: breast milk; grains, roots, and tubers; legumes and nuts; dairy products (milk, yogurt, and cheese); flesh foods (meat, fish, poultry, and organ meat); eggs; vitamin A-rich fruits and vegetables; and other fruits and vegetables (MoH et. al., 2022).

6.1.18 Output 3.2, Indicator 2: # and percent of primary caregivers with improved knowledge and practice in IYCF practices

Indicator	Baseline survey value	Target Values at the Design Phase	TDHS 2022
# and percent of primary caregivers with improved knowledge and practice in IYCF practices	47.7% n=222/465	-	-

Knowledge and practice on IYCF were estimated based on 15 different items as summarized in (**Table 6**). The overall prevalence of adequate knowledge and practice on IYCF was 47.7% (95%CI 39.4, 56.2), 47.2% in Shinyanga DC vs. 49.5 in Kishapu DC. All except one respondent in Shinyanga DC (99.8%, 95%CI 98.4, 100.0) knew a newborn should receive only breastmilk as the first food, 63.9% (95%CI 54.4, 72.4) knew that a newborn should be put to the mother's breast within one hour after birth (60% in Shinyanga vs. 77.1% in Kishapu DC), 95.1% (95%CI 92.0, 97.0) ever heard about EBF, and 93% (95%CI 87.3, 96.2) knew that EBF means the infant gets only breastmilk and no other liquids or foods (92.1% in Shinyanga DC vs. 96% in Kishapu DC). Over two-thirds (68.6%, 95%CI 61.0, 75.3) of all respondents had adequate knowledge of EBF benefits (mentioned two or more benefits). Knowledge of complementary feeding was almost universal with 96.6% (95%CI 93.5, 98.2) of all respondents knowing that babies should start complementary foods after 6 months. Less than a third of all respondents 31.8% (95%CI 22.6, 42.7) knew at least two methods of making rice porridge nutritious (31.4% in Shinyanga DC. vs.







33.3% in Kishapu DC). Additionally, 56.8% (95%CI 49.2, 64.1) knew two or more good nutrition practices during pregnancy and 61.1% (95%CI 52.2, 69.3) knew two types of supplements most women would benefit from during pregnancy. Other knowledge items are summarized in **Table 6**.

Table 6: Percentage distribution of knowledge and practice on IYCF, overall and by distric	t
(n=465)	

Total		District, n (%)		
Characteristics		(n=465)	Shinyanga DC	Kishapu DC
	n	% (95% CI)	360 (77.4)	105 (22.6)
Knowledge and practices on IYCF*				
First food a newborn baby should receive (only breastmilk)	464	99.8 (98.4, 100.0)	359 (99.7)	105 (100.0)
A newborn baby should be put to the breast within 1h after birth	297	63.9 (54.4, 72.4)	216 (60.0)	81 (77.1)
Ever heard about EBF	442	95.1 (92.0, 97.0)	341 (94.7)	101 (96.2)
Knew EBF means the infant gets only breastmilk	411	93 (87.3, 96.2)	314 (87.2)	97 (92.4)
Adequate knowledge on EBF benefits (2 or more)	319	68.6 (61.0, 75.3)	250 (69.4)	69 (65.7)
Knew babies should start other foods in addition to breastmilk after 6 months	449	96.6 (93.5, 98.2)	346 (96.1)	103 (98.1)
Know at least two ways to make rice porridge nutritious	148	31.8 (22.6, 42.7)	113 (31.4)	35 (33.3)
Knew two or more good nutrition practices during pregnancy	264	56.8 (49.2, 64.1)	203 (56.4)	61 (58.1)
Knew two types of supplements most women would benefit from during pregnancy	284	61.1 (52.2, 69.3)	213 (59.2)	71 (67.6)
Knew one or more benefits of child spacing	344	74 (65.0, 81.3)	262 (72.8)	82 (78.1)
Knew two or more ways to recognize that someone is not having enough food	225	48.4 (41.4, 55.4)	183 (50.8)	42 (40.0)
Know two or more reasons why people are undernourished	96	20.6 (14.5, 28.6)	74 (20.6)	22 (21.0)
Know two or more reasons why people do not get enough food	119	25.6 (19.3, 33.0)	86 (23.9)	33 (31.4)
Washes hands with soap or ashes	270	58.1 (50.9, 64.9)	215 (59.7)	55 (52.4)
Wash hands in all five critical occasions	14	3 (1.3, 7.0)	13 (3.6)	1 (1.0)
Adequate knowledge and practice of MIYCF**				
No	243	52.3 (43.8, 60.6)	190 (52.8)	53 (50.5)
Yes	222	47.7 (39.4, 56.2)	170 (47.2)	52 (49.5)

* These are multiple-response questions; hence the reported percentages will not tally to 100.

** Calculated as the number of individuals who scored 10 or more items (coded as 'Yes', and 'No', if otherwise).

When triangulated with qualitative findings, most of the mothers interviewed across the three wards in Shinyanga and Kishapu district councils (DC) had **knowledge of EBF** mentioning the importance of colostrum as indicated by one of them in a group of women with children under two years in Shinyanga DC.

"...but the first milk is usually thick and yellow which is important for the baby's growth..." [WRA_U2-







In one of the FGDs, breastfeeding was defined as:

"The meaning of breastfeeding is to provide nutrition to the child through the mother; in my experience, mother's milk gives the child immunity and also builds its brain...is to breastfeed the child exclusively for six months." [WRA-U2-SHY-WARD2]

and another said:

"What I know about breastfeeding is providing nutrition to the child through mother's milk ...the child absorbs the mother's milk in order to be healthy; the mother's milk provides all the nutrients that the child needs" [WRA-U2-KISHAPU DC].

Regarding **knowledge on complementary feeding** (**Table 8** in **Appendix I**), 96.6% (95%CI 93.5, 98.2) correctly stated the age babies should start eating foods in addition to breastmilk is at six months. The commonly cited ways to make rice porridge more nutritious or better for the baby's health were from pulses and nuts (78.7%, 95%CI 72.1, 84.1), followed by animal-source foods (21.7%, 95%CI 14.5, 31.2), and vitamin A-rich fruits and vegetables (21.3%, 95%CI 13.6, 31.7).

Despite the advice and information, they have on appropriate food during complementary feeding, (fruits, nuts, beans, leafy vegetables, corn, sorghum, potatoes, meat and sardine) some women were not using appropriate food despite the knowledge they have. The few who knew about advised food for complementary feeding mentioned the following foods to be used during complementary feeding:

"Sweet potatoes and beans because they help increase blood for the child and peanuts contain oil as some say they contain vitamin A" [WRA-U2-KISHAPU]

"For our environment here sweet potatoes, pumpkin seeds, green vegetables. if you introduce these foods, the child becomes healthy also, pulses, rice, peanuts, corn, often these foods added in porridge, they help the child to have a good weight." [WRA-U2-SHY-WARD2].

The reasons for not using complimentary foods included low family income, lack of nutrition education, and mothers being busy with work.

"The difficult situation of the family's economy; the mother may be aware of the best types of food but she does not have the money to buy those foods." [WRA_U2-SHY WARD 1]

"Due to the very low family's economy, you lack money to buy food with nutrition. So, there is no way to get mixed food for the child." [WRA-U2-KISHAPU DC; WRA-U2-SHY-WARD2]







"Lack of nutrition education, you will find some foods we have but we do not have the knowledge on how to use or prepare nutritious foods." [WRA-U2-KISHAPU DC; WRA-U2-SHY-WARD2]

"Mothers work so much, you find that we don't have time to prepare food for the child, often the food he/she eats is what adults eat too, something that is not right." [WRA-U2-KISHAPU DC].

In all the FGDs with WRA with children under two years children; eating fruits was mentioned by a few participants. The table below provides a summary of KAP findings at the baseline evaluation.

Category	Sub-category	Knowledge	Practice
Breastfeeding	Breastfeeding within one hour after birth	63.9%	68.9% Put to breast within 1 hour after delivery
	Exclusive breastfeeding for 6 months	93%	72.6% of children 0 to <6 months exclusively breastfed
Complementary feeding	Introduction of complementary foods	96.6%	Children 6 - 8 months introduced to complementary food; NOT ASSESSED
	Food diversification	31.8% Know at least two ways to make rice porridge nutritious	8.4% of children 6-23 months achieved minimum dietary diversity
Maternal health	Iron and Folic Acid supplementation	49.9% know at least one benefit of FEFO during pregnancy	89.5% of mothers consumed iron folic in their last pregnancy

6.1.19 Output 4.1 Indicator 1% increase in local CSO capacity assessment score

During the GROW-project baseline, WYCF (Women and Youth Careline Foundation – the consultant) conducted a capacity assessment of KIVULINI-WRO in April 2024. The purpose of the capacity building assessment to KIVULINI -WRO was to; assess the organization's capacity across the nine (9) predetermined dimensions by World Vision, through measuring organizational capability/ strength and identifying areas for further improvement.

Findings show that KIVULINI WRO indicates good progress in all nine (9) categories, as per the general score of 85.1% - a maturity stage. However, despite being in the maturity stage in all categories, some areas need improvement despite low risks. These categories include Identity & Constituency (75.0%), Governance and Leadership (80.0%), Strategy Systems & Structure (80.2%), Managing Our Resources (87.5%), and External Relations (81.3%).









6.2 GESI-Assessment

Twelve FGDs from three wards in Shinyanga DC and Kishapu DC were conducted for GESI assessment. The wards were: Iselemagazi, Mwalukwa, Samuye, Parandagiciza, Itwangi and Usanda in Shinyanga DC and Shagihilu and Mwakipoya in Kishapu DC. In total, we conducted eight GESI FGD assessments in Shinyanga DC with female and male youth aged between 18 and 25 years and adult men and women aged between 25 and 49 years, and four in Kishapu DC. **Table 7** below summarizes the FGD participant characteristics by district

Characteristics	Shinyanga DC, n (%)	Kishapu DC, n (%)	Total, n (%)
Sex			
Males	48 (51.6)	19 (50.0)	67 (51.2)
Females	45 (48.4)	19 (50.0)	64 (48.9)
Age (in years)			
15-25	42 (45.2)	18 (47.4)	60 (45.8)
26-35	8 (8.6)	11 (28.9)	19 (14.5)
>35	43 (46.2)	9 (23.7)	52 (39.7)

Table 7: Gender equality Social inclusion Assessment (GESI) participants' characteristics

Results corresponding to functional disability assessment are summarized in Section 2.2 and Table 11 of Appendix I. Overall, 14.2% (95%CI 10.5, 18.9) of all respondents had at least one form of disability, i.e., some or more difficulty, (13.1% in Shinyanga DC vs. 18.1% in Kishapu DC). Similarly, a previous study among individuals 15-20 years in Iringa and Mbeya regions reported 14% of the 310 individuals having a disability (Quinones et. al., 2021). In Tanzania, the TDHS 2022 reported an overall 15.1% of individuals aged 15 years and older (8% of household members aged 5 and older), had at least one form of disability (MoH et. al., 2022), which is consistent to the findings in the baseline assessment.

The proportion of people with disability in the baseline assessment may be higher than 18% as most of the disabled people are hidden as narrated in one of the female GESI group:

"...because they fear the community to know about their disabled children as they believe that if the community are aware of a disabled person in a certain family they will not propose for marriage in that family, and the family will lose the opportunity of getting dowry of other family children in the family who are ok..." [GESI-Female-KISHAPU]

The GESI assessment looks into five main domains as indicated below:

6.2.1 Access to, ownership of, and use of assets, resources, opportunities, services, benefits, and infrastructure

The main tribe living in Shinyanga DC and Kishapu is Sukuma. In Sukumaland, the patriarchal system is still practiced with the father as the head of the family and the owner of the







resources. All the groups were asked if a woman can own resources in their community and from the discussion it was clear that men are the owners of the resources. It was clear that men are the owners of the resources (mentioned by 62.5% of the 131 participants), followed by women (mentioned by 32.5% of 131 participants), and the rest (5% of 131 participants) mentioned both men and women. All participants in the GESI assessment agreed on men being the main owners of the household assests as narrated below:

"...there is no way a woman can own things otherwise unless there are no men in that family or her husband is dead; all assets are owned by men because they are the heads of the family [GESI-Mwalukwa –Youth Girls, R-3].

"Women do not own livestock; it is believed that, once married livestock are for the men ...we do not own the resources unless a widow has inherited ... "[GESI-Youth Female-Pandagichiza, R-5].

However, in some groups, few mentioned that women can own a few assets:

"...there are few women who own assets like livestock, house, bank accounts and other things such as furniture, car and motorcycles but most of the assets are owned by men".[GESI-Male -Itwagi, R-1]

For those few women who own assets, the main characteristics were mentioned to be a civil servant or unmarried as narrated in one group:

"Yes women can own the assets those who can possess the assets are either civil servants or those who are unmarried, but once a woman is married, even if she has property, all the properties will be under the control of the husband because in the community they believe that if a woman has property, she will despise her husband. "[GESI-Female-Pandagichiza, R-7]

The majority of the participants across the groups agreed that for household food production (planting, weeding, and harvesting, the work is done by the entire family as narrated by one participant:

"...Issue about farm cultivation, planting, and weeding and harvesting is the responsibility of all household members(father, mother, and children)..."[GESI-Youth Male-SHAGIHILU, R-4].

However, the majority of the participants in the GESI assessment mentioned that the challenge they are facing is that most of the families are not benefiting from the products of their labour as narrated below:







"... during the rainy season, we work together, with the men in farming doing everything. However, during the harvest season, most men become the owners of everything. The man can sell the crop without informing you and use the money to drink alcohol and entertain concubines. They come home when they are broke. When you question their behaviour they become arrogant and we have nowhere to go, and if you report him to the local authorities you can be beaten" [GESI- Female-SHAGIHILU,

R-5]

From the male groups, the majority of the participants agreed to be the owners of the family assets because as fathers they have the responsibility of taking care of the family. So they hold the power of selling the crops as narrated below:

"I am the father, the head of the household, I supply my family with grain, meat, milk, and the rest. As a father, I am the one who decides to sell some crops, and I use the cash for other family needs like school requirements for children," [GESI-Male -Itwagi, R-2]

6.2.2 Decision-making on assets, resources, opportunities, services, and benefits at all levels

Decision-making is important, especially for meal plans and financing for food purchases. When women are empowered to make decisions and are knowledgeable about the nutritious food to purchase for the family, they will often prioritize the health and well-being of their children and improve the infants' and young children's feeding practices. Out of 131 participants, 81.3% mentioned men, 11.3% women, and 7.5% both men and women as the decision-making power in most of the family assets and resources. Common narratives to support this were:

"... women are the ones who plan of the meals... but men are the ones who finance for the purchase of the foodstuffs..." [GESI – Female- Shagihilu-R-3; GESI-Male-Shagihilu-R-5; Female-GESI-Mwaluka-R-6; Youth male-GESI_SAMUYE-R-1].

In one of the male GESI groups, they all agreed with the practice given by one of the participants in that group as narrated below:

"I can't plan the meal for the family while my wife is around; she can decide what we are supposed to eat on a daily basis... though some kind of meals like when she needs to slaughter a chicken or goat she must inform me first. In my house women can't control and decide the financial matters even if it is for purchasing food..." [Male-GESI-Itwagi, R-4].

In all the GESI assessment groups, 11 out of 12 groups agreed that men are the ones who make decisions on family matters in the community [**Table 7**]







"Men are the ones who make the final decision on family matters; women are just given information by men on what has been discussed and decided. Women are given orders and there is no way to question or challenge otherwise you will be beaten." When they were asked why this is happening one respondent said "...the community believes that men are the heads of the families..." [GESI-Mwalukwa –Youth Girls, R-3]

"Men are the final decision-makers, especially on income-generating activities such as in agriculture; what crops to grow, what economic activities are to be done by the family." [Youth male-GESI_SAMUYE, R-6]

"Men make decisions about most of the family issues while women make decisions mainly about kitchen issues such as what food to eat but the men are the providers." [Youth male-GESI_SAMUYE]; [GESI-Male-Itwagi, R-8]

When asked why men are the sole decision-makers, the main reason given was:

"... men are the heads of the families and women might be beaten if they make decisions without consulting the head of the family.... In this community, women are taken as weak people so they cannot make sound decisions... "[GESI-Youth Female-Pandagichiza, R-3].

6.2.3 Participation-ability to participate and/or engage in societal affairs and systems of power that influence and determine development and well-being outcomes

The ability for women to participate in societal affairs and systems like community plans and leadership can raise women's voices and may improve women's decision-making on issues related to women's health and education in general. In the GESI assessment, only 45.5% of 131 participants denied the involvement of women in leadership positions as they cannot make decisions in their communities, while 54.4% said women are involved.

Some of the narratives are as explained below:

"The community believes that women and youth are powerless, they cannot decide, cannot be leaders and they are undervalued by men. Men believe that women are just to be informed and they must follow what men say. ..."[GESI- Mwalukwa –Youth Girls, R-5; GESI – Female- Shagihilu, R-10]

"...for me as a woman I can speak and they can listen to me... I am a member of the land committee at the ward level. If there is any conflict in the family, I can speak and solve some disputes ..." [Female-GESI-Mwaluka, R-11]







"Women and youth are included in the community programs in our area, for example, the chairperson in our neighborhood is a woman..."[GESI-Male Youth-Itwagi, R-9]

In this group, all participants voiced that women are not involved in leadership decisions and the reasons given were:

"... the ones who give priority for development issues in our community are men especially in leadership positions, as they believe that women cannot lead since they are weak and also we are denied permission to compete for the position by our husbands especially when the opportunity arises." [GESI – Female- Shagihilu, R-11]

"Yes, women and youth are included in the community plans, leadership and benefits on equal footing, because there are women in the village governance committee and youth." [GESI – Youth Male- Shagihilu-R-8; GESI-Male-Shagihilu-R-2]

6.2.4 Systems-systems that promote equity and inclusion, and create an enabling environment for equal engagement

Promoting equity and inclusion, and creating an enabling environment for all is important to reduce health disparities by making sure all are included. From the GESI assessment, 60% of 131 participants mentioned that the systems are not promoting equity and inclusion to people with disability, women and girls, and there are no enabling environment for equal engagement. In some groups, they mentioned that the community believes that having a disabled person in the family is a curse; so they hide them in their homes. The narratives below explain the community voices in this issue:

"...disabled, women, girls, and boys are not participating in community initiatives because of that notion that they cannot do anything; the disabled persons are a curse to the community..." [GESI-Mwalukwa –Youth Girls]

"... disabled people are hidden in the family because the community believes that having a disabled person is a form of a curse in the family...we have not seen the disabled people, included in the community plans and also not seen them at any meetings..."[GESI-Youth Female-Pandagichiza]

"Yes, disabled people are included in community plans but only the older ones, other young disabled are hidden inside the house.... but we have a leader at the village level who is a disabled person." [GESI-Youth Female-SHAGIHILU]







For those who mentioned that the disabled are hidden in their homes, the reasons they gave were:

"...because they fear the community to know about their disabled person as they believe that if the community becomes aware of the disabled person in a certain family they will not propose on that family, and the family will lose the opportunity of getting dowry of other family children in the family who are ok..." [GESI-Female-SHAGIHILU]

Also, the myth surrounding disabled people was mentioned as reflected in the narrative below:

"... disabled persons are not included in community and leadership activities. Also in other families, they have been hidden inside the house because they believe it is "NDAGO" (used for witchcraft purposes.)[[GESI- Female-Pandagichiza]

6.2.5 Well-being creates a sense of worth, confidence, dignity, safety, and health free of all forms of inequalities and discrimination

Community structures are important in resolving issues in the community which may affect the sense of worth, confidence safety any form of inequalities. These structures are meant to resolve issues like gender-based violence (GBV), rape and other acts which will reduce or jeopardize the individual sense of worth, dignity and safety. In Shinyanga and Kishapu DC, 34.7% of 131 GESI participants said reporting structures do not exist or even when reported, no action is taken, 26.7% (% of 131 participants) recognized the existence of functional reporting systems, 26.7% and 12% (% of 131 participants) can report and know how to report GBV and rape, including where to report, respectively.

These existing structures were mainly village government office, police, religious leaders, traditional leaders and a local structure called "Sungusungu" as voiced out by the GESI assessment participants:

"In the community, there is an elders' council to resolve issues; the village executive officer, ward executive officer and sub-village officer are resolving GBV matters. Also, religious leaders and the police gender desk for the more sensitive GBV issues that cannot be resolved at the primary level..."[Male-GESI_SAMUYE]

"Other structures to resolve the community on the same issues/cases e.g. the village executive officer, ward executive officer and sub-village officer while collaborating with religious leaders..." [GESI-Male -Itwagi; GESI-Youth Female-SHAGIHILU; GESI- Female-SHAGIHILU; GESI- Male-SHAGIHILU]







"Yes here in our community we have something like "sungusungu" or the elders of the village and they also help a lot..." [GESI- Female-Pandagichiza]

However, not all were satisfied with the way these structures were operating as described below:

"... no any structures rather than government village office."

They added by saying that, they are still not satisfied with how this office is working to resolve issues of community well-being as sometimes they do not take action as narrated in this example:

"...for example, when a girl is forced to be married, the office fails to intervene...there is no action taken to the family but blame the girl for deciding to drop school and get married."[GESI- Mwalukwa – Youth Girls]

"...there are structures but sometimes are not effective as women who are the victims of gender-based violence don't report this incidence as the society will bully them for reporting their partners and sometimes the partners will cause more violence that may lead to death or amputation of body parts." [Youth male-GESI_SAMUYE]

In Sukuma culture, it was mentioned that men do not have to ask for consent if they want to have sex with a woman; they just go for it as described below:

"A large percentage of men in our society do not understand the meaning of gender violence because, in our culture, men are not taught to respect women and are not required to ask for consent; instead their understanding of interactions with women is often sexual acts without even requesting for consent...". [GESI- Female-Pandagichiza]

To enhance safe reporting and child protection in the community, the following issues were proposed by the participants:

"...education on child protection so that the community gets knowledge on child's rights and on gender-based violence which will allow the community to understand gender-based violence." GESI-Mwalukwa –Youth Girls];[Male-GESI_SAMUYE; Youth male-GESI_SAMUYE; GESI-Male Youth-Itwagi; GESI-Youth Female-Pandagichiza]







"We request the organization (WVT) to provide the gender desk where we can report these cases and also, having a phone number for reporting such cases." [Female-GESI-Mwaluka; GESI-Youth Female-Pandagichiza; GESI-Youth Female-SHAGIHILU]

To support the issues discussed in the GESI assessments, two **case studies** are reported (see embedded files below).



7. Conclusions

7.1 General conclusion

Child anthropometric indicators: % of children under five years of age with reduction in wasting and % of children under 5 years with reduction in stunting. The baseline survey findings reveal a concerning prevalence of stunting (30.3%) among children 6-59 months. This is slightly lower than the national estimate of 30%, but higher than 27.5% in Shinyanga region. On the other hand, wasting/thinness (3.6%), overweight (6.4%), and underweight (10%), were high compared to the national and regional estimates. Even though 90% of the participants own land. This suggests that land ownership alone does not necessarily translate to improved nutritional outcomes for children.

Diet for children 6-23 months: % of children in target districts aged 6-23 months receiving minimum acceptable diet. Only 22.9% of children 6-23 months achieved MDD (\geq 5 food groups), 8.4% had \geq 4 MFF, and 3.6% achieved MAD.

ANC visits: % of women aged 15-49 who used at least 4 antenatal examinations (ANC). The baseline survey findings reveal two key challenges related to antenatal care (ANC) utilization and service provision; **Low First Trimester ANC Attendance:** Only 25% of pregnant women went to ANC during the first trimester, which is crucial for early identification and management of pregnancy-related problems. **Inadequate Provision of Recommended ANC Services:** Only 16% of mothers who attended ANC received all the recommended services by the Ministry of Health (MOH).

Bio-fortification: # of HH growing nutrient-rich crops. In this baseline survey, only 31.8% (n=148/465) of all households grew bio-fortified crops in the past season the proportion was similar across districts. On the other hand, among all households, 3.4% consumed \geq 9 food groups (high HDDS) a day preceding the survey.







% increase of funding for health and nutrition services from KEN, TZA national budgets & Puntland regional budget. Prioritization of nutrition in the national plans has gone along with increased resources through national budgets for both specific and nutrition-sensitive interventions. However, the provided at the regional and district levels are still not sufficient to implement the planned activities.

In the region, we found seven government officials who are trained on trained the importance of nutrition and health as outlined in international and local law. They are advocating issues related to health. Five of them are at the district level. They prioritize budgetary allocations towards nutrition-specific and nutrition-sensitive interventions by contributing 1000 Tshs. for each child in their districts annually.

All Government institutions are using the National Multisectoral Nutrition Action Plan 2021/2022-2025/26 (NMNAP II) which is emphasis on scaling-up multisectoral interventions and community-based initiatives that have been proven to yield cost-effective results targeting areas and groups with the highest levels of malnutrition. The NMNAP II save as a road map for the country to improve nutrition status (PMO, 2022).

7.2 Conclusion about GESI

The findings from the GESI assessment underline the significance of gender differences in decision-making, resource ownership, and participation in societal matters. This has implications for the health and nutrition status of maternal and child populations. In Shinyanga DC and Kishapu DC, male dominance in decision-making and control over resources presents a significant challenge, limiting women's ability to access recommended foods for pregnant women and children. Moreover, women's participation in societal affairs is restricted, highlighting systemic barriers that hinder their involvement in decision-making processes, even on matters concerning them directly. This lack of participation contributes to women's lack of confidence. Additionally, the practice of married couples residing with the husband's parents further compounds the issue, as it places women and children under the influence of their inlaws' decision-making. This dynamic can negatively impact the nutrition status of pregnant women and children, particularly if their in-laws are not well-informed about the importance of food diversity during pregnancy and complementary feeding.

8. Recommendations

Child anthropometric indicators





World Vision

- Implement community-based programs tailored to the specific needs of Kishapu DC and Shinyanga DC with a focus on interventions to reduce stunting and wasting. Tailored interventions should address the high burden in males than female children 6-59 months, such as addressing socio-cultural barriers to optimal IYCF practices.
- Strengthen CHWs to detect cases of stunting and wasting and provide them with clear instructions on how to refer such cases.
- Build the capacity of healthcare providers, CHWs, and educators to provide high-quality growth monitoring, to deliver effective nutrition education and counselling services in the communities and at the health facilities.
- Given that decision makers of all activities in the household are the men/household heads and in-laws, therefore, develop and implement comprehensive nutrition education programs targeting caregivers, particularly mothers, in-laws, and men/household heads to improve their knowledge and skills on optimal infant and young child feeding practices.

ANC utilization

- Conduct community-based awareness campaigns to educate women and their families on the importance of early ANC initiation and the benefits of timely care-seeking in collaboration with community health workers, local leaders, local NGOs, and other influential community members to promote and create awareness of the importance of attending ANC during the first trimester.
- Address barriers to accessing ANC services such as transportation challenges, and cultural beliefs and empower women to make decision by creating supportive and respectful environment at home and at the community.
- At the family level, train the in-laws who are staying with their daughters-in-law to understand the importance of earlier ANC services.
- Strengthen the capacity of health facilities and providers to deliver the full package of recommended ANC services by conducting in-house training for health workers on the ANC guidelines and protocols and ensuring the availability of essential ANC commodities, equipment, and supplies at all health facilities providing maternal and child health services to deliver high-quality, evidence-based ANC services.

Bio-fortification

Increase awareness and education campaigns to educate households about the benefits
of bio-fortified foods while strengthening collaborations with agricultural and nutrition
sectors in the ward up to the district level.







- Collaborate with the local NGOs, and local healthcare providers to integrate nutrition counselling in their agenda.
- To achieve community ownership, involve the community in planning for nutrition initiatives in their communities. Train and support to households on sustainable agricultural techniques, crop diversification, and the cultivation of nutrient-dense foods. Moreover, the introduction of homestead food production, such as vegetable and fruit gardens, to increase the availability of diverse, nutritious foods within the household.

Other indicators

- WVT should collaborate with other stakeholders including CSOs and community members to raise their voices demanding an increase of the nutrition budget in their area. Also, districts to enforce the existing policy to local government authorities (LGAs) to allocate at least 10% of their own source to health financing.
- While the districts are contributing of 1000TZS. per child annually, they should explore other opportunities to increase budgetary allocations toward nutrition programs in the districts. Lobby for additional funding from both government and external donors to scale up nutrition interventions and reach more vulnerable populations in the project area.
- The district government officials who are overseeing the nutrition activities to include communities to participate and engage them on planning and implementation of the nutrition interventions outlined in the NMNAP II.







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