



FANSER

Food and Nutrition Security, Enhanced Resilience



FANSER'S CONTRIBUTION TO IMPROVED NUTRITION IN ZAMBIA: A SUMMARY OF IMPACTS 2015-2024



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On behalf of
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On behalf of



Federal Ministry
for Economic Cooperation
and Development

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LIST OF ABBREVIATIONS

DHS	Demographic and Health Survey
FANSER	Food and Nutrition Security, Enhanced Resilience
FGDS	Focus group discussions
FUS	Follow-Up Surveys
HFIES	Household Food Insecurity Experience Scale
IAPRI	Indaba Agricultural Policy Research Institute
IDDS	Individual Dietary Diversity Score
IPC	Integrated Food Security Phase Classification
MAD	Minimum Acceptable Diet for children
MCDP II	1000 Most Critical Days Program phase
MDD-W	Minimum Dietary Diversity for Women
MMF	Minimum Meal Frequency
NFNC	National Food and Nutrition Commission
WASH	Water, Sanitation and Hygiene

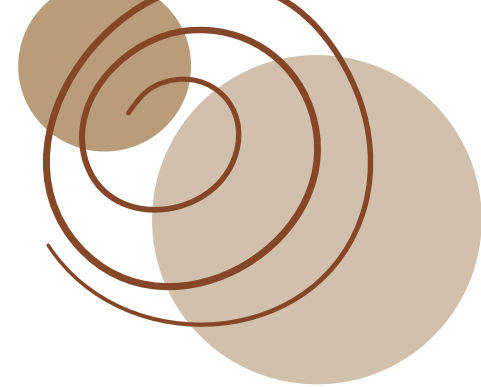




FANSER

Improved nutrition for women of reproductive age
and children under the age of two

1. FANSER Project Background



The FANSER project worked towards improving the nutritional situation of vulnerable people, especially women of reproductive age and young children below two years of age in selected districts of Eastern Province and Luapula Province in Zambia. The project worked in close collaboration with the National Food and Nutrition Commission (NFNC) and in alignment with the national flagship program on nutrition, the 1000 Most Critical Days Program phase II (MCDP II).

Launched in 2015 in Eastern Province, the project expanded to Luapula Province in 2020. It formed part of the GIZ Global Program on Food and Nutrition Security ([link 1](#)), which operated in 12 countries, including Zambia. The program used standardized nutrition indicators across countries, enabling cross-country comparisons (see also here [link 2](#)).

The Zambia country package concluded in March 2025 after 10 years of implementation. A comprehensive overview of its approaches and lessons learned is available in the FANSER knowledge map ([link 3](#)). To achieve measurable impact, the FANSER project monitored several outcome-level indicators, including women's dietary diversity, appropriate feeding practices for children under two, and improved Water, Sanitation, and Hygiene (WASH) knowledge and practices.

Progress was tracked by comparing these indicators to baseline values and control groups through follow-up surveys (FUS) conducted every two years by an independent consulting firm. This document presents key insights and results from those surveys.

SCAN TO OPEN LINKS

GIZ Global Program on Food and Nutrition Security



GIZ Cross-Country Evaluation of Nutrition Outcomes



GIZ FANSER Knowledge Map



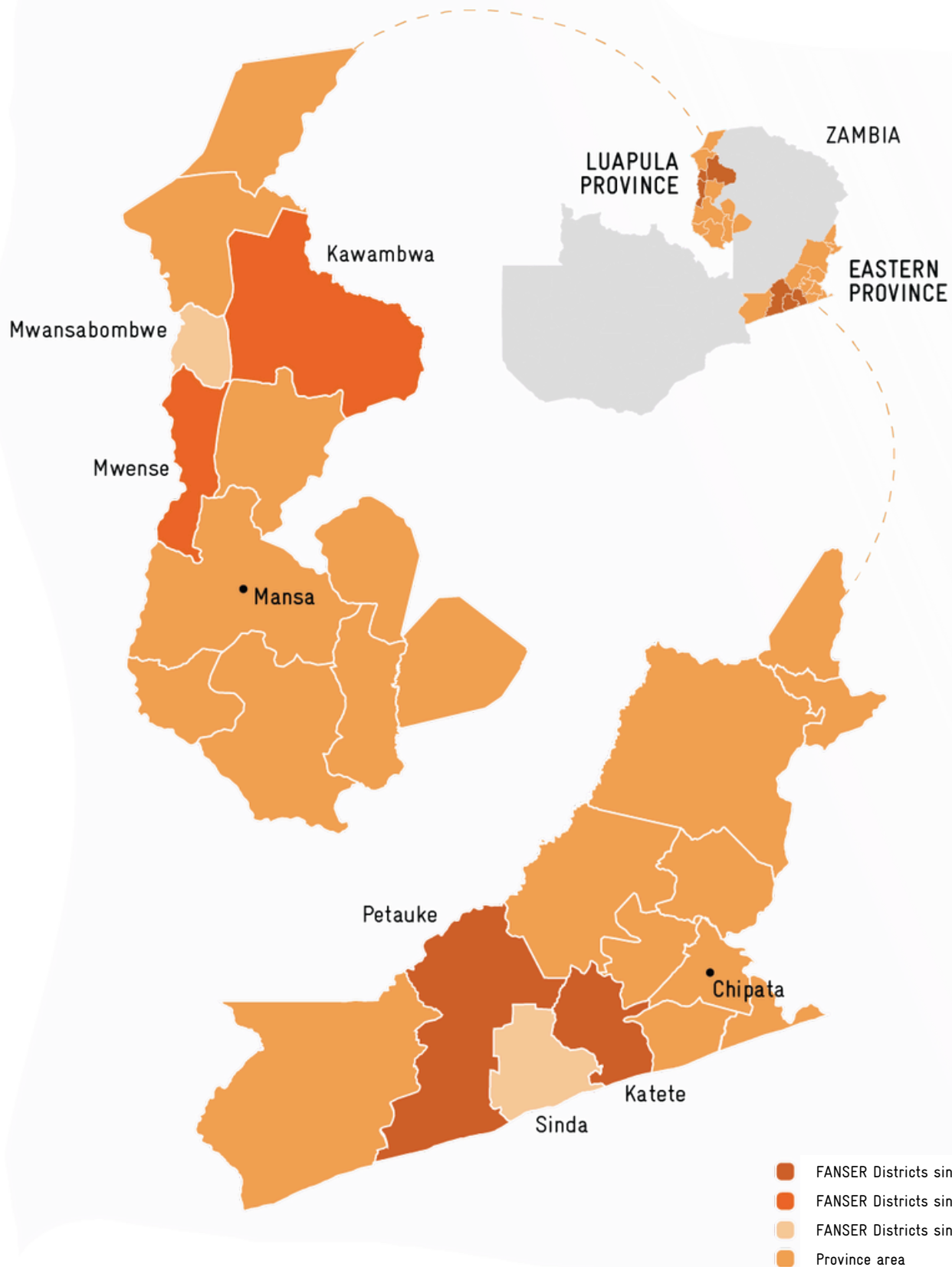


FIGURE 1: FANSER districts in Eastern and Luapula provinces including start year of implementation

2. MAIN TAKEAWAYS

FANSER's Follow-Up Surveys 2015 to 2024

From 2015 to 2022 the project was making considerable progress in achieving its targets and FANSER beneficiaries scored better than the control group in nearly all outcome indicators. The promoted cultivation and consumption of specific nutrient rich crops that address existing nutrient gaps proved to be essential. Other factors such as women empowerment or membership in groups (such as savings groups) can improve the dietary diversity of mothers and/or children but no uniform pattern was observed in the different survey rounds. The WASH indicator showed erratic developments, and no consistent improvement could be achieved. The last follow-up survey (and hence the endline) was conducted in September 2024, a year in which Zambia was struck by an El Niño-induced drought which developed into one of the worst droughts in decades (see textbox below for further details). Food insecurity levels increased drastically in the FANSER implementation areas, particularly in the Eastern province, and previously achieved gains in the nutrition and WASH indicators were partly lost.

Nevertheless, even in times of crisis beneficiaries continued to achieve better nutrition and WASH outcomes than the control group, underscoring the resilience and improvements that were achieved by the project.

The 2024 drought emergency in Zambia

An El Niño-induced drought affected large parts of Zambia in the 2023/24 agricultural season, prompting the Zambian President to declare a national emergency in February 2024, following the cessation of rains around January 29. Rainfall deficits were recorded in eight out of ten provinces, with Eastern province being one of the hardest-hit regions, leading to an overall reduced national crop production. Crop failures in the largely rainfed agricultural sector ranged between 60–80%, drastically reducing food availability and contributing to rising prices for key staple crops[1]. Estimates of the Integrated Food Security Phase Classification (IPC) showed that between April and September 2024, 4.95 million people were facing high levels of acute food insecurity (phase 3 and above) in 82 out of the 94 analysed districts in Zambia (see figure 1).

This figure even increased in the October 2024 to March 2025 projections in which with 5.83 million people, more than a quarter of the Zambian population, were facing high acute food insecurity – 236,000 of those were even facing critical levels (phase 4).

The 2023/24 drought also led to severe drinking water shortages, pest infestations such as the Fall Army Worm and outbreaks of crop diseases like the Cassava Brown Streak Virus in the northern parts of the country further undermining seasonal crop performance.

[1] Integrated Food Security Phase Classification (IPC). (2024). Zambia: IPC Acute Food Insecurity Analysis April 2024 – March 2025. ReliefWeb, published 2 October 2024.

Current Acute Food Insecurity: April - Sept 2024

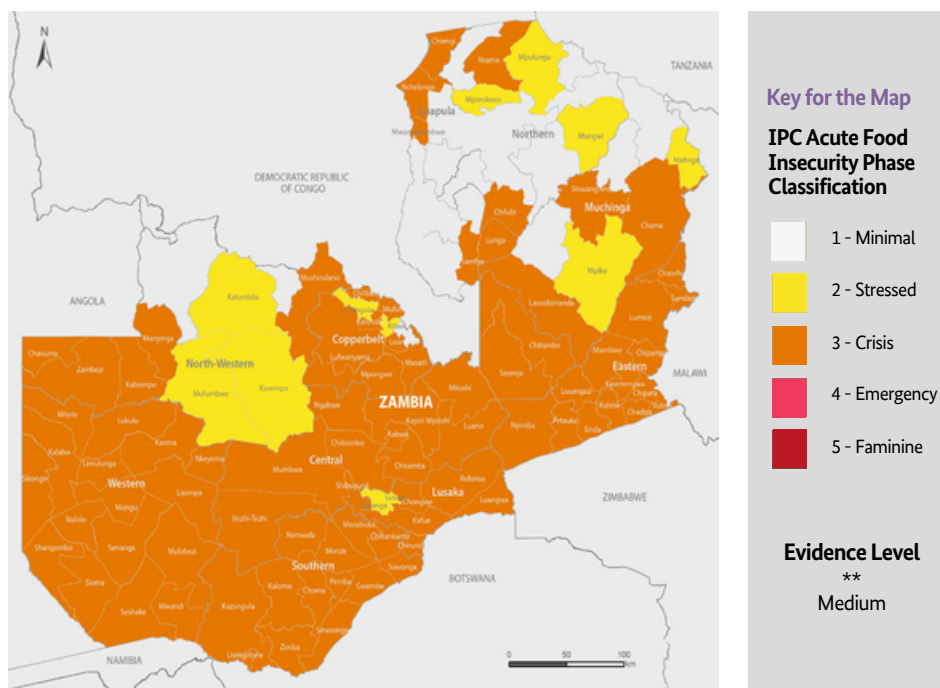


Figure 2: IPC projection of the districts affected by food insecurity in the context of the 2023 /24 drought. [Link 4]

Dietary diversity of women

The dietary diversity of women who benefited from the program was measured using two methods: the Individual Dietary Diversity Score (IDDS) and the Minimum Dietary Diversity for Women (MDD-W). In 2022, the dietary diversity improved significantly, with women consuming an average of 4.8 different food groups. Sixty percent (60%) of them met the minimum dietary diversity requirement of eating at least 5 food groups. However, during the 2024 drought, the dietary diversity declined. The average number of food groups eaten dropped to 3.9, and only 27% of women met the minimum dietary diversity. **Despite this decline, beneficiary women still had more diverse diets than those in the control group. The survey results suggest that nutrition-sensitive agriculture activities are effective as they have a positive impact on dietary diversity.**

Adequate feeding of children below 2 years of age

The proportion of children from FANSER beneficiary households receiving a Minimum Acceptable Diet (MAD) rose significantly to 49% in 2022. By 2024, this figure dropped to 28%, likely due to the drought crisis, but it remained well above the national average of 13% (DHS 2018[2], link 5).

Across all follow-up surveys, beneficiary children were consistently better fed, with a larger proportion meeting Minimum Acceptable Diet (MAD) compared to children in the control group.



IPC Zambia Acute Food
Insecurity Jul 2024
Mar 2025 Report



Zambia Demographic
and Health Survey
2018 [FR361]

Hygiene knowledge and practices

Knowledge and practice levels around important hygiene and sanitation aspects were inconsistent in the different follow up surveys and the translation of knowledge into practice remained a bottleneck. Building and particularly maintaining sanitation facilities like improved latrines represented a challenge. Nevertheless, the incidence of diarrhoea in children showed a remarkable decrease in both regions amongst beneficiary and control groups, although in Eastern province the decrease was more pronounced for the beneficiaries.



3. METHODOLOGY AND INDICATORS

How the FANSER project tracked progress

Key facts regarding the methodological approach

The Follow-Up Survey gathered data through a quantitative survey with a standardized questionnaire as well as qualitative data through Focus Group Discussions. The survey was implemented every two years in late September/early October through an independent consulting firm and in cooperation with the Zambia Indaba Agricultural Policy Research Institute (IAPRI). To allow for better comparison and context, the survey included two groups: beneficiary women with a child aged 6 to 23 months, and mothers of children in the same age group who did not receive any support from the project, this second group served as the control group. The sample size was designed to provide representative results for the combined area of the three districts in each province.

Dietary diversity of women

The dietary diversity of women is assessed using two indicators:

Minimum Dietary Diversity for Women (MDD-W):

Defined as the proportion of women (15 - 49 years) who consume at least 5 out of the 10 defined food groups ($MDD-W \geq 5$).

Individual Dietary Diversity Score for Women (IDDS-W):

This is a scale indicator that measures the dietary diversity of an individual woman by indicating the mean of the number of different food groups consumed by women of reproductive age (15 - 49 years) over a 24-hour recall period. Ten food groups are used according to the FAO definition: 1) grains, white roots and tubers, plantains, 2) pulses (beans, peas lentils), 3) nuts and seeds, 4) dairy, 5) meat, poultry and fish, 6) eggs, 7) dark green leafy vegetables, 8) other vitamin A rich fruits and vegetables, 9) other vegetables and 10) other fruits.

Food group as per FAO Definition



1) Grains, white roots and tubers



2) Pulses (beans, peas lentils)



3) Nuts and Seeds



4) Dairy



5) Meat, Poultry and Fish



6) Eggs



7) Dark green leafy vegetables



8) Other vitamin A rich fruits and vegetables



9) Other vegetables



10) Other fruits

Source: Own illustration based on the Food and Agriculture Organization.

Minimum acceptable diet for children

Adequate feeding of children below 2 years of age is assessed through the percentage of children who receive a minimum acceptable diet (MAD). The MAD indicator is a composite of the Minimum Dietary Diversity (MDD) and Minimum Meal Frequency (MMF). MAD is indicating the proportion of breastfed and non-breastfed children aged 6 to 23 months who received an adequate diet in a 24 h dietary recall period. A child is considered to have received a Minimum Acceptable Diet if they meet both of the following criteria:

- Minimum Dietary Diversity (MDD): The child consumed (solid, semi-solid or soft) foods from at least 4[1] out of 7 food groups[2] in the previous 24 hours.
- Minimum Meal Frequency (MMF): The child was fed the minimum number of times or more appropriate to their age and breastfeeding status in the previous 24 hours.

Hygiene knowledge and practices

Under this indicator the project looks at the proportion of mothers who have specific hygiene knowledge and practice promoted hygiene practices:

1. Knowledge of at least four key moments to wash hands
2. Knowledge of at least four ways to prevent food contamination
3. Use of an improved sanitary facility
4. Treatment of water before drinking (accepted method to make water safe)

To fulfil the indicator, women must know and practice at least three out of the four mentioned aspects.

Contextual information on experienced food insecurity at household level

In addition to the indicators on dietary diversity and hygiene, the project also collects data on the Household Food Insecurity Experience Scale (HFIES). The HFIES is composed through eight questions focusing on self-reported food-related behaviours and experiences associated with increasing difficulties in accessing food due to resource constraints. It is a direct measure of food insecurity experienced by households.

[1] The project applied the pre-2021 definition of Minimum Dietary Diversity (MDD), as it began in 2015. To ensure consistency over time, the survey continued using this definition.

[2] Seven food groups are used for the calculation of the indicator: (1) grains, roots and tubers, (2) legumes and nuts, (3) dairy products (milk, yogurt, cheese), (4) flesh foods (meat, fish, poultry and liver/organ meats), (5) eggs, (6) vitamin-A rich fruits and vegetables, and (7) other fruits and vegetables.

4. DETAILED FINDINGS from the FANSER Follow-Up Surveys

Food insecurity

The follow-up surveys from 2015 to 2024 showed an alarming increase in food insecurity in Eastern province. In Luapula province, food insecurity levels remained very high throughout the survey period from 2020 to 2024. During the endline in 2024, the share of moderately and severely food insecure people stood at 89% in Eastern and 81% in Luapula province, see also figure 03.

This is important information for adequate contextualization of the nutrition and WASH indicators. **In Eastern, we have observed a drastic increase in the share of moderately and severely food insecure households from 38% in 2015 to 89% in 2024. The trend is similar for both beneficiary and control groups. In Luapula, food insecurity remained relatively stable at alarmingly high levels of over 80% of households experiencing moderate or severe levels of food insecurity from 2022 to 2024.** The 2022 assessment showed a slight improvement because the share of beneficiaries experiencing severe food insecurity was reduced from 57% to 26% compared to the 2020 assessment. However, in 2024 the share of severely food insecure beneficiaries rose again to 43%. **Moreover, poverty levels which are an important underlying cause of food insecurity have increased from 54% in 2015 to 60% in 2022 and are with 79% particularly high in rural areas of Zambia. Eastern and Luapula are with 76% and 81% amongst the provinces with the highest poverty rates. Extreme poverty has increased in both provinces since 2015 and stood in the 2022 assessment at 63% in Eastern province and 70% in Luapula province (see [highlights-of-the-2022-poverty-assessment-in-zambia-2023.pdf](#)).**

Highlights of the 2022 poverty
assessment in Zambia 2023



Household Food Insecurity Scale Beneficiary - Timeline

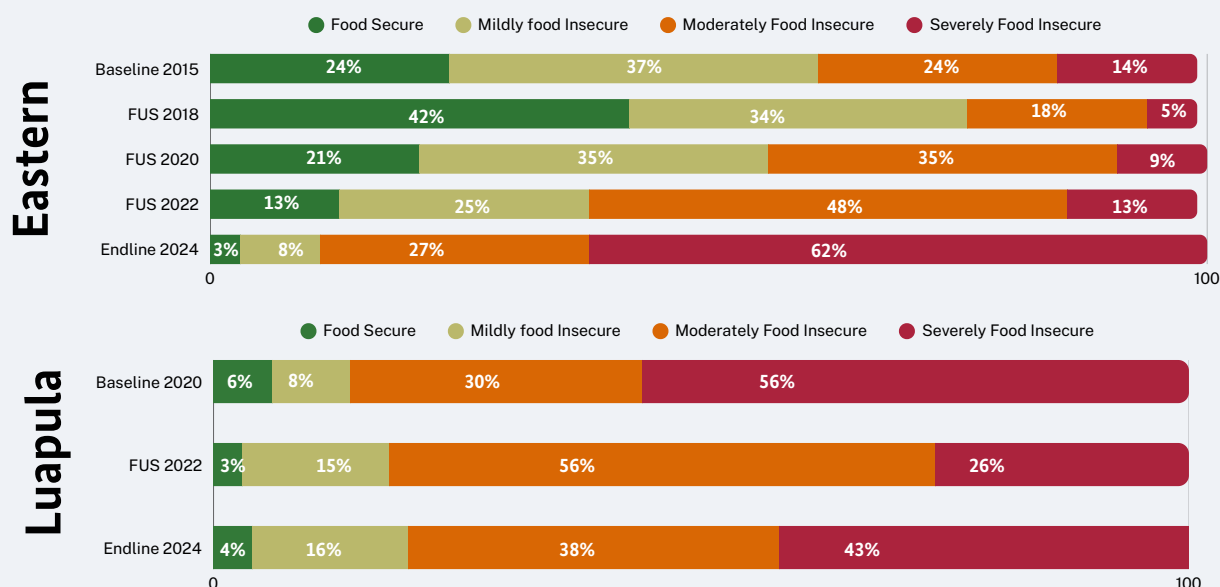


Figure 3: Overview on the development of the Household Food Insecurity Experience Scale (HFIES) from Baseline to Endline in the FANSER districts of Eastern and Luapula provinces.

Dietary diversity for women

The FANSER project aimed to enhance dietary diversity for women in 6 districts of Eastern and Luapula province of Zambia by increasing the Individual Dietary Diversity Score for Women (IDDS-W) from a baseline of 4.3 to a target of 5.3 food groups overall, with regional targets of 5.7 in Eastern Province (baseline 4.7, 2015) and 4.8 in Luapula Province (baseline 3.8, 2020). The project encouraged consumption across ten food groups and tracked the Minimum Dietary Diversity for Women (MDD-W), though no specific MDD-W targets were set. Significant progress had been made until the 2022 assessment. The 2024 endline survey, however, revealed a significant decline in dietary diversity from 4.8 in 2022 to 3.7 food groups in 2024 and across both provinces, missing all targets due to the 2024 El Niño-induced drought and related challenges.

Overall : Individual Dietary Diversity Score for Women (IDDS-W)

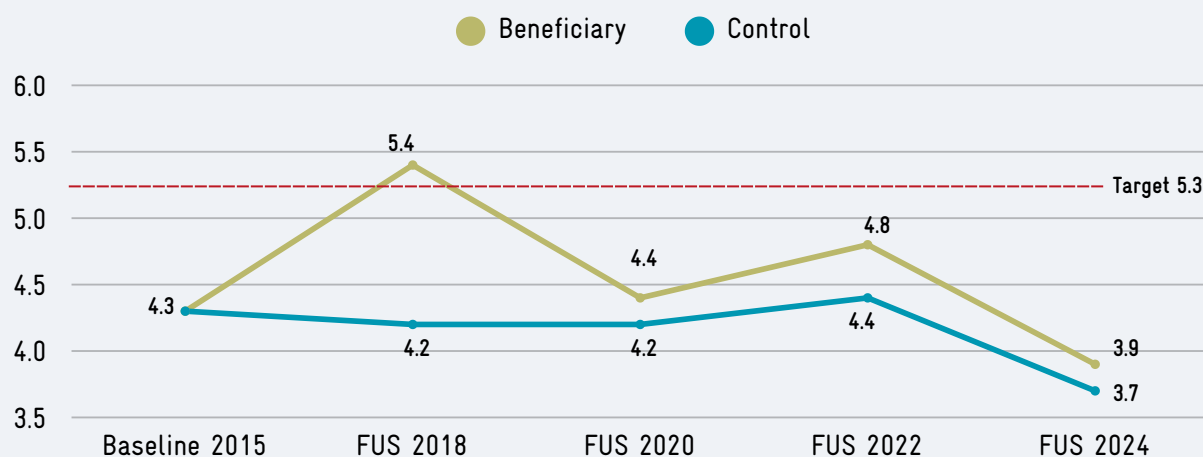


Figure 4: Development of the overall Individual Dietary Diversity Score for women (IDDS-W).

Eastern

In the endline in 2024, the Eastern province IDDS-W dropped to 3.7 for beneficiaries from 4.9 in 2022 and 3.5 food groups for the control group, indicating a significant decline in dietary diversity and missing the target of 5.7 food groups. The MDD-W also fell, with only 18% of the beneficiaries and 15% of the control group, down from 45% in 2022 meeting the threshold of 5 food groups. Beneficiaries had a statistically significant 3-percent-point higher MDD-W prevalence than the control group during the endline.

When looking at the food security status in relation to the IDDS, the 2024 endline results showed that belonging to the beneficiary group provided a degree of enhanced resilience. Among beneficiaries, the dietary diversity of both women and children remained relatively stable across different levels of perceived food security.

In contrast, the control group showed a significant decline in mean IDDS values as food security deteriorated. Furthermore, among those classified as severely food insecure, both women and children in the beneficiary group had significantly higher dietary diversity compared to their counterparts in the control group.

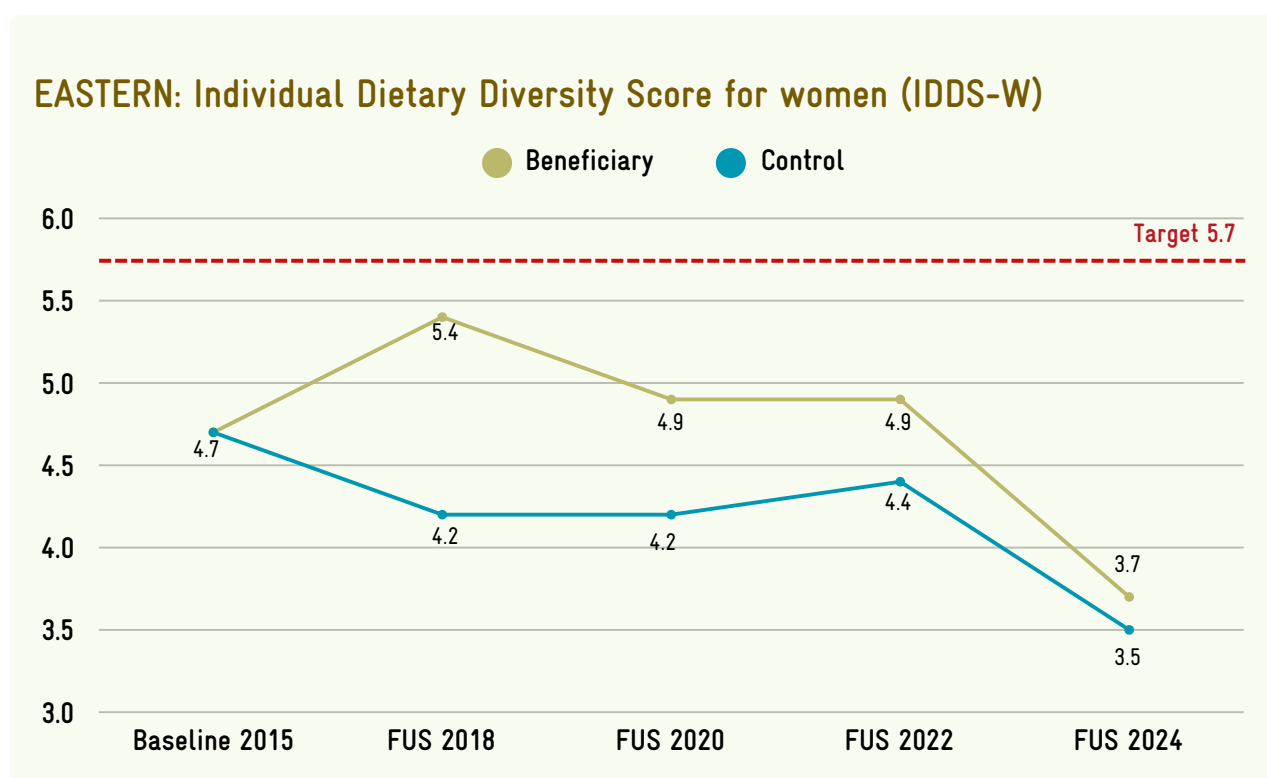


Figure 5: Development of the Individual Dietary Diversity Score for women (IDDS-W) in Eastern province.

Luapula

Luapula province also experienced a decline in dietary diversity, although less pronounced, with IDDS-W dropping to 4.1 for beneficiary mothers from 4.6 in FUS 2022 and 3.8 for the control group from 4.3 food groups, missing the 4.8 target.

The MDD-W was achieved by 36.5% of the beneficiaries and 24.7% of the control group down from 42.0% in 2022, highlighting beneficiaries' stronger performance despite dietary hurdles. This decline could be attributed to intermittent dry spells, excessive rainfall, crop losses, a cassava brown streak virus outbreak, and rising food prices.

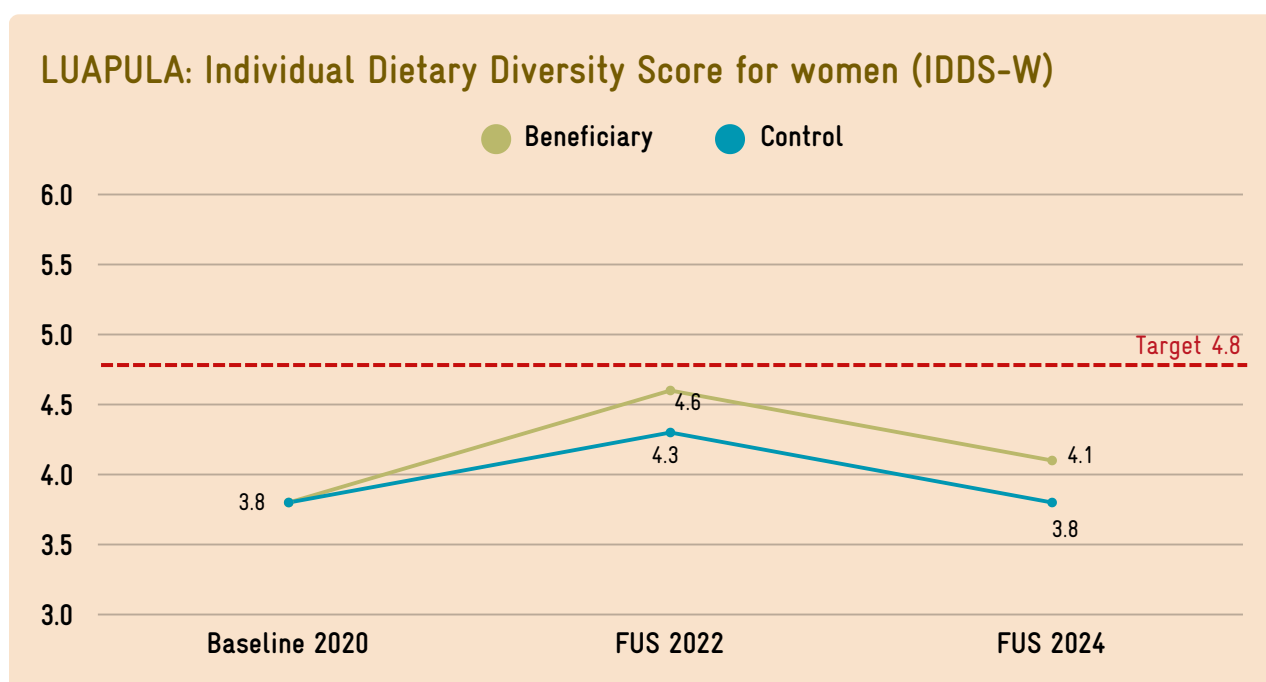


Figure 6: Development of the overall Individual Dietary Diversity Score for women (IDDS-W) in Luapula province.

Adequate feeding of children below 2 years of age

The project aimed to increase the share of children aged 6-23 months receiving a Minimum Acceptable Diet (MAD) from the overall baseline of 34% to 46% by the endline of the FANSER project in 2024. The 2024 endline showed a decline of MAD from 49% in 2022 to 28% for beneficiary children and from 37% to 18% for the control group.

Minimum Acceptable Diet Overall (MAD)

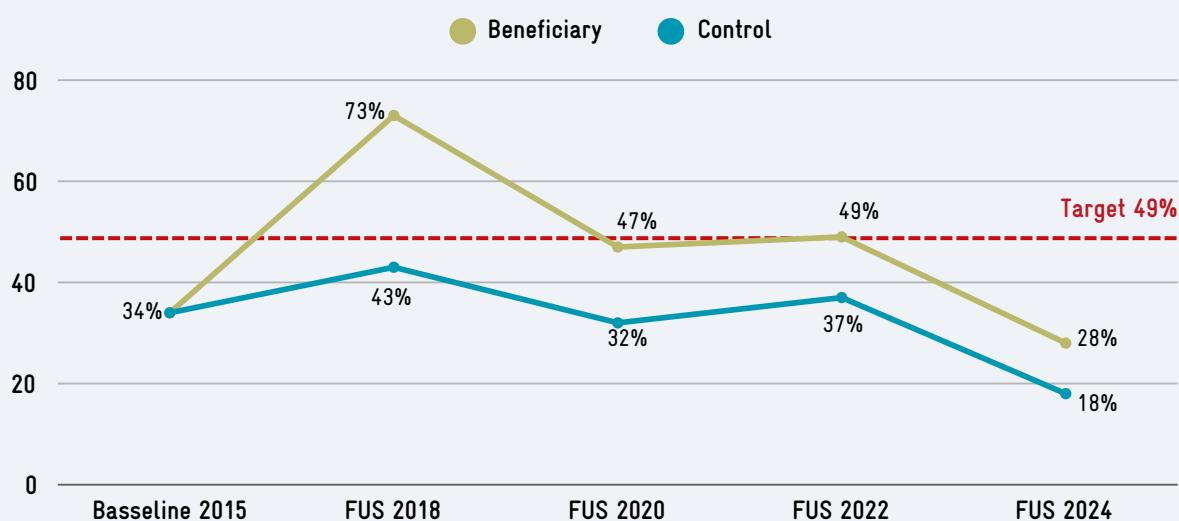


Figure 7: Development of the Minimum Acceptable Diet (MAD).

Eastern

In Eastern province, MAD was consistently above the 49% target and baseline of 34% (2015) in previous years, recording 72% in 2018, 65% in 2020, and 64% in 2022 reflecting strong progress in improving child nutrition. However, in 2024, there was a dramatic decline to 29% among beneficiaries and 18% in the control group, marking a significant setback. This drop coincided with a reduction in the IDDS-C, which fell to 3.2 for beneficiary children from 4.3 and 3.0 for the control group from 3.6, and a decline in MDD, which dropped to 43% from 82% and 30%, from 2022 respectively. These sharp decreases highlight the severe impact of the 2024 El Niño-induced drought, which disrupted food availability and dietary diversity, undermining years of nutritional gains across the province.

Luapula

In Luapula province, MAD showed gradual improvement from a baseline of 23% in 2020 to 33% in 2022, before dropping to 26% among beneficiaries and 17% in the control group in 2024 falling significantly short of the 38% target set for the province. This decline reflects broader setbacks in child nutrition indicators during the 2024 endline. The IDDS-C also dropped notably, averaging 3.2 for beneficiaries from 3.5 and 2.7 for the control group from 3.4, marking a statistically significant reduction from 2022. In parallel, the MDD decreased to 43% for beneficiaries from 57% and 31% for the control group from 53% in 2022, further contributing to the overall deterioration in dietary quality. These trends underscore the negative impact of the 2024 El Niño-induced drought, which disrupted food systems and reversed previous gains in child nutrition.

See graphs on next page

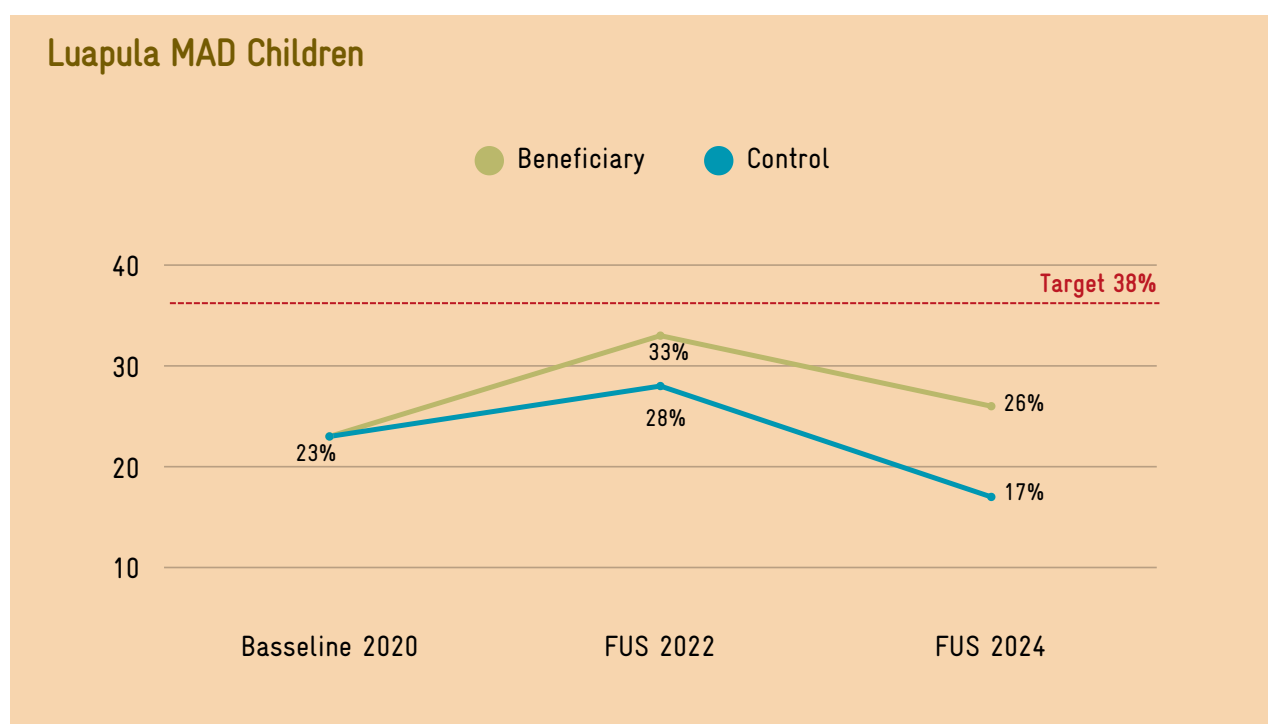
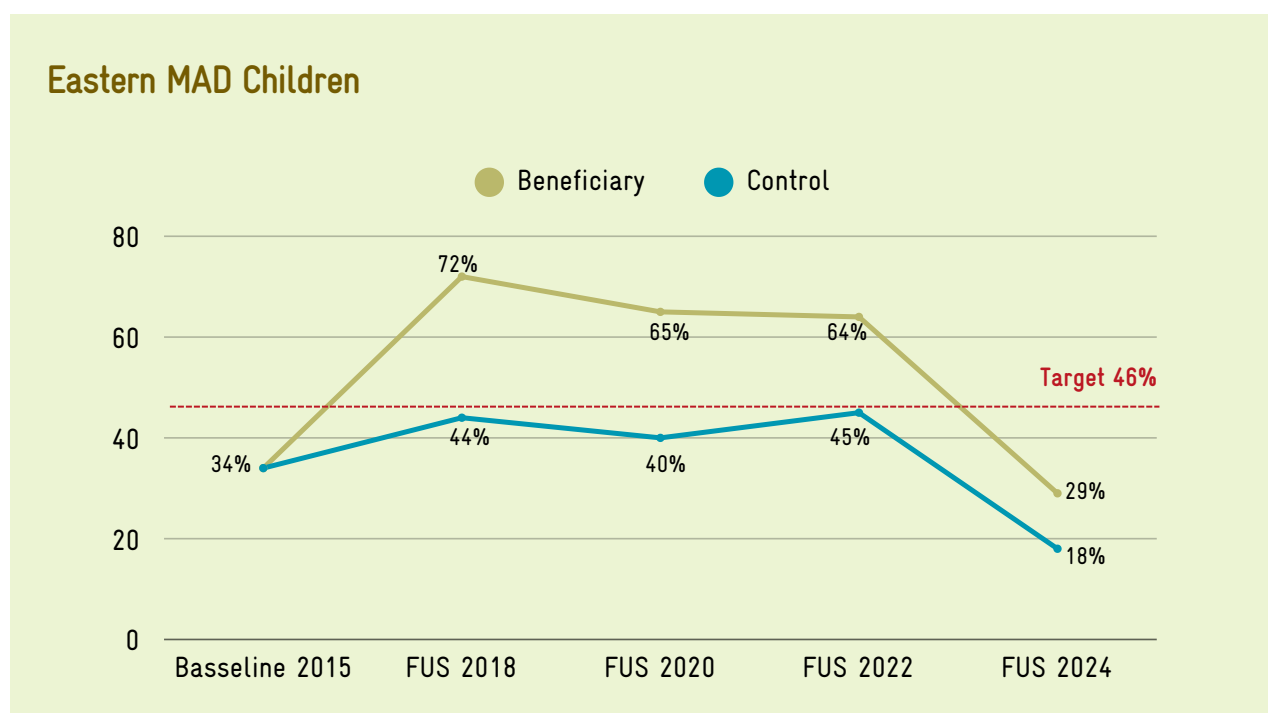


Figure 8: Development of the Minimum Acceptable Diet (MAD) in Eastern and Luapula provinces.

NOTE:

Beneficiary children consistently outperformed the control groups in both regions



Hygiene knowledge and practices

Under this indicator the FANSER project looked at the proportion of mothers who had specific hygiene knowledge and applied promoted WASH practices, at least three out of four promoted WASH aspects need to be known and practiced by the women:

1. Knowledge of at least four key moments to wash hands
2. Knowledge of at least four ways to prevent food contamination
3. Use of an improved sanitary facility
4. Treatment of water before drinking (accepted method to make water safe)

The baseline value for this indicator was at 2% and the target was set at 23% of beneficiary women who by the end of the project should know/apply three out of the four listed WASH aspects. Improvements in the area of hygiene and sanitation have been challenging for the project. Overall, the share of women who know/practice the three out of four practices has increased to 16% but is still substantially lower than the target of 25%.

In Eastern province, the overall hygiene indicator in the 2024 endline declined to 5.5% for beneficiaries and 2% for the control group, highlighting a decline in observed hygiene practices and knowledge across both groups from 13% and 9% respectively in the 2022 assessment. Despite the overall decline in the hygiene indicator, certain hygiene practices have shown improvement over time. Water treatment, for instance, increased from 28% in 2022 to 33% in 2024, marking progress even from the baseline level of 27%. Additionally, the use of sanitary facilities significantly improved among the beneficiary group, rising from a baseline of 10% to 25% at endline [see figure 9]. These findings suggest that while some key hygiene practices require further reinforcement, targeted interventions in areas such as water treatment and sanitation have contributed to positive behavioural shifts.

Building on the improvements observed in water treatment and the use of sanitary facilities, it is important to note that despite the overall decline in the hygiene indicator, **beneficiaries continue to demonstrate better hygiene practices than the control group.**

The decrease in knowledge of handwashing and food safety practices suggests a gap in the retention and application of hygiene education. Focus group discussions (FGDs) revealed that while many participants appreciate and attempt to implement hygiene teachings, practical challenges such as poverty, cultural resistance, and physical limitations hinder the full application of these practices.

The following quotes from FGD respondents in Eastern Province provide insight into these barriers:

“The lack of money is what is causing us to fail to practice some these things. For example, for you to have soap you need to look for money to go and buy. But even after you put soap at the toilet you will find that someone has stolen that same soap. (...).”

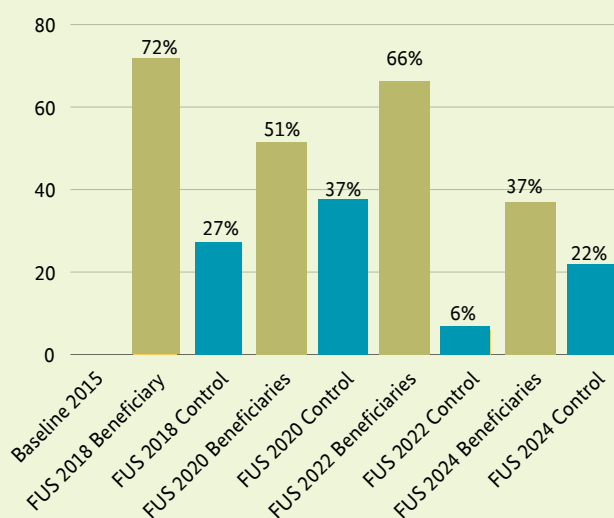
“It’s hard for women to dig latrines because it requires strength and energy.”

“The challenge is boiling [water] feels like a waste of time. It is more like an old culture because we believe water from the well is just safe. The culture seems like it has changed but it’s still there because of certain doubts. But others manage to follow the teachings accordingly.”

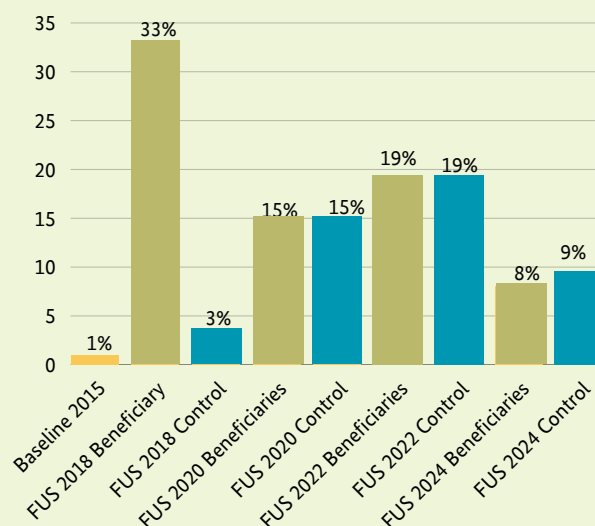
Eastern Hygiene Practices / Knowledge

Beneficiary ■
Control ■

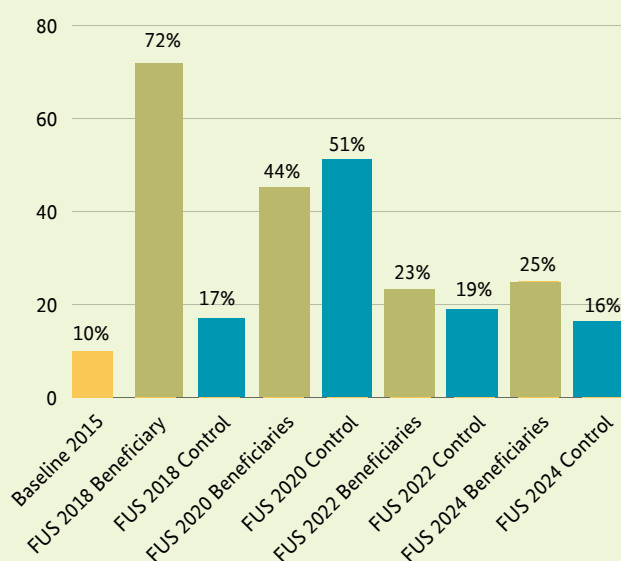
Knowledge of at least four key moments to wash hands



Knowledge of at least four ways to prevent food contamination



Use of an improved sanitary facility



Treatment of water before drinking

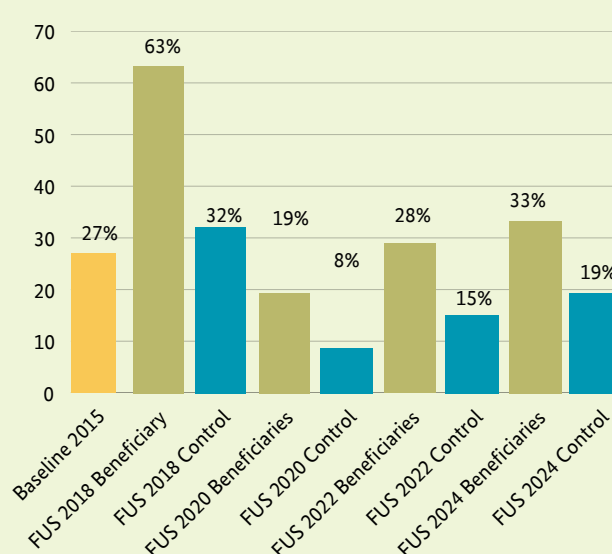


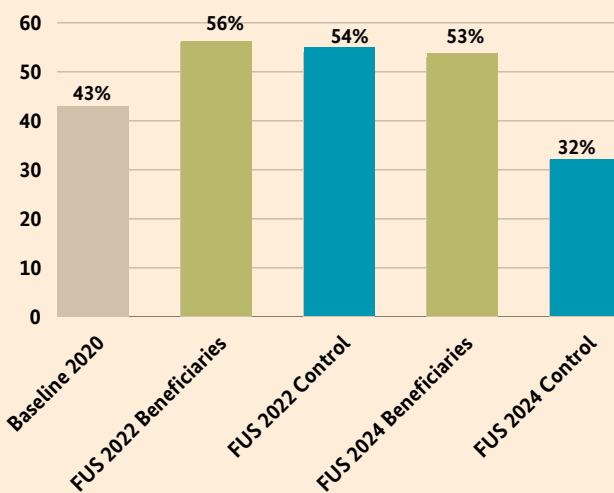
Figure 9: Development of knowledge and practice aspects related to WASH in Eastern province.

In Luapula Province, there have been mixed results in the knowledge and application of the four promoted hygiene practices among beneficiaries. The proportion of beneficiaries who know and apply at least three out of these four practices slightly decreased from 17.6% in 2022 to 14% in the 2024 endline. In contrast, the control group showed a slight improvement, with 9.2% of mothers practicing three out of four behaviors, compared to 7% in 2022. Despite this slight decline in the overall practice of hygiene behaviors, there were significant improvements in specific areas.

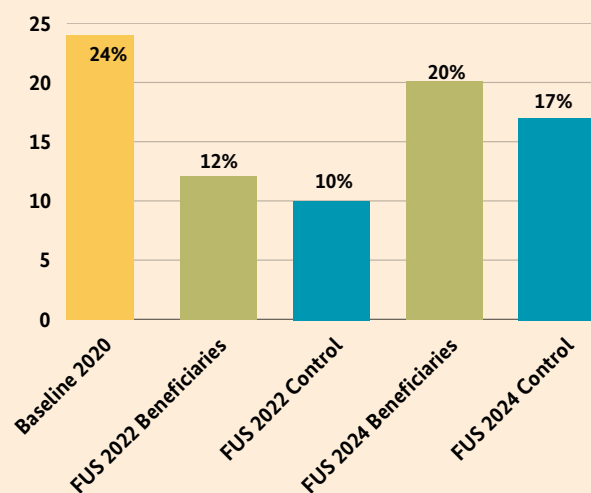
Luapula Hygiene Practices /Knowledge

Beneficiary ■
Control ■

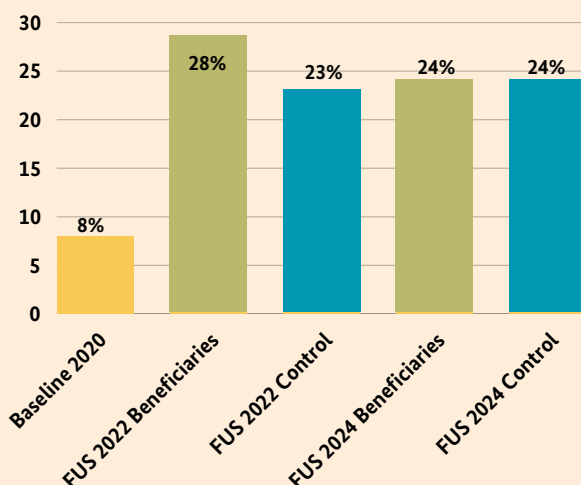
Knowledge of at least four key moments to wash hands



Knowledge of at least four ways to prevent food contamination



Use of an improved sanitary facility



Treatment of water before drinking

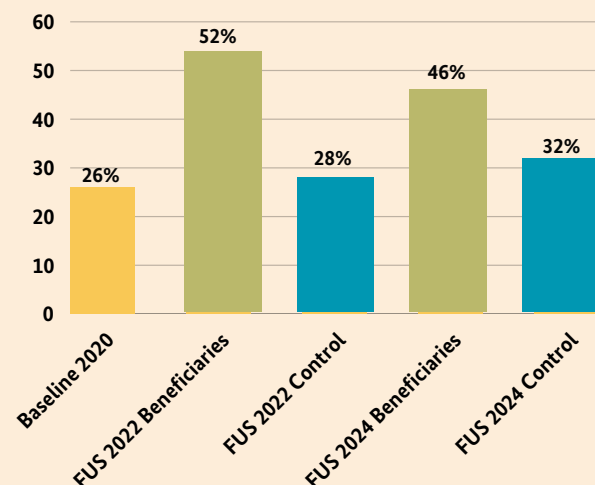


Figure 10: Development of knowledge and practice aspects related to WASH in Luapula province.

Notably, water treatment to ensure its safety showed a marked improvement among beneficiaries, with 46% reporting water treatment at the 2024 endline compared to 26.4% at baseline and 31.6% in the control group. However, this result was lower than the 54% reported in 2022. Similarly, knowledge of at least four key handwashing moments was significantly higher in beneficiaries (53%) compared to the control group (31.9%) and baseline levels (43%), maintaining results similar to those seen in 2022 (56%). These findings reflect the sustained retention of critical hygiene knowledge among beneficiaries.

In terms of food contamination prevention, knowledge among beneficiaries showed positive growth, increasing from 9.5% in 2022 to 19.5% in 2024. However, this still fell short of the baseline level of 24% in 2020. The control group exhibited a decline in food contamination prevention knowledge, with only 10% in 2022 and 17% in 2024, both below baseline levels.

While there was a slight decrease in the overall knowledge and application of hygiene practices among beneficiaries, targeted improvements were observed in key areas such as water treatment and handwashing, as well as a significant decrease in the incidence of diarrhoea in children from 53% at baseline to 30% in 2024. These positive trends can be seen in the focus group discussion from respondents in Luapula:

“FANSER also taught us on how to make water safe for drinking through chlorination and boiling. They also told us that borehole is safe to drink.”

“FANSER really emphasized cleanliness in the way we keep our surroundings, property and dishes. They especially emphasized keeping the toilet clean, you also need to wash your hands after using the toilet with soap and if you have no soap, you can use ash. I need to wash my hands before cooking and I must be clean when feeding the baby”

Overall, Eastern Province had an increase in sanitation facility use and water treatment, despite some decline in overall hygiene practices. While in Luapula, beneficiaries showed significant progress in water treatment and handwashing knowledge also despite reduction in the overall indicator. **Generally, the beneficiary group is always outperforming the control group in both provinces.**

Both Eastern and Luapula provinces, recorded notable reductions in the incidence of diarrhea among children. In Eastern Province, rates dropped from 62.3% in 2015 to 43% in 2024, reflecting steady progress over time. In Luapula, the data shows a decrease from 52.6% in 2020 to 30% in 2024, indicating significant improvement within a shorter period. [See figure 11]

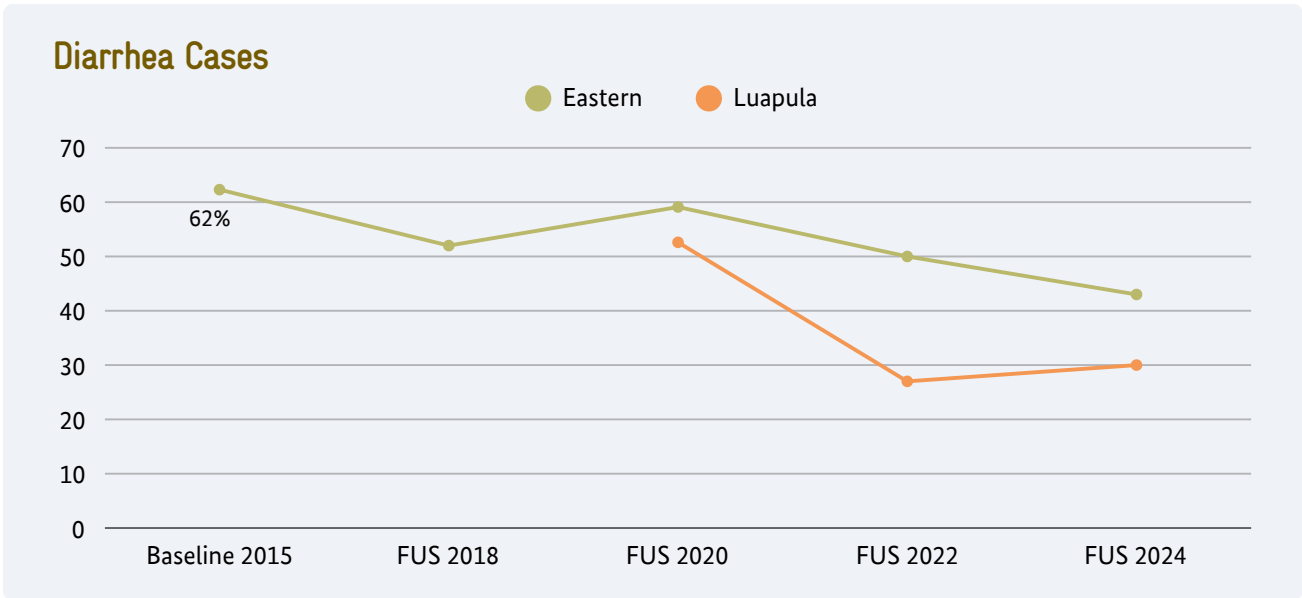


Figure 11: Development of the Diarrhea incidences over the project period

5. CONCLUSIONS

Positive impacts:

- **FANSER beneficiaries had a higher dietary diversity (IDDS) and better child nutrition (MAD) than the control group throughout the survey period from 2015 (Eastern)/2020 (Luapula) to 2024 – also in times of food crisis like in 2024.** In Eastern province, the dietary diversity of both women and children remained relatively stable across different levels of perceived food security as measured with the HFIES during the endline in 2024. Among those classified as severely food insecure, both women and children in the beneficiary group had significantly higher dietary diversity compared to their counterparts in the control group.
- **In Eastern province, belonging to the beneficiary groups provided enhanced resilience as the dietary diversity of both women and children did not significantly fluctuate across food security status,** contrary to the control group where we could observe significant and substantial drops in mean IDDS values as food security status gets worse (according to HFIES categories).
- **In Eastern province, belonging to the beneficiary groups provided enhanced resilience as the dietary diversity of both women and children did not significantly fluctuate across food security status,** contrary to the control group where we could observe significant and substantial drops in mean IDDS values as food security status gets worse (according to HFIES categories).
- Nutrition sensitive agriculture interventions bear fruits – there is evidence for a positive influence on dietary diversity: **the promotion of target food crops, such as vitamin-A or protein rich food (e.g. orange fleshed sweet potatoes, papaya, cowpeas or mbereshi beans) for production and consumption increases the likelihood to have an adequate diet for both children and women.** Beneficiary women and children showed higher consumption rates of promoted food crops. Also, in times of crisis like in 2024, the FANSER beneficiaries still had a more diversified food production than the control group, with higher crop diversity scores and greater vegetable production. This trend indicates that the program has contributed to increased production and inclusion of nutrient-rich vegetables in the diets of beneficiaries, which may lead to improved dietary diversity and nutritional outcomes.
- Economic empowerment through membership in saving groups and farmer business schools as well as adequate storage and processing of food and receiving help in chores or support in field work (components of women empowerment) can improve the dietary diversity of mothers and/or children but no consistent pattern was observed in the various survey rounds.

Learning areas:

- Food insecurity has negative effects on the impacts of project measures – safety nets for the most vulnerable households are necessary. In times of food crisis and dramatic increase of food insecurity, like during the 2024 drought in Zambia, women's dietary diversity and child feeding practice are negatively affected and previous achievements are eroded. To support beneficiaries coping abilities, interventions should consider including emergency measures such as cash transfers or emergency food distributions. Learnings should be drawn from the 1000 days social cash transfer nutrition pilot which was implemented in 2024 and aimed at making the cash transfers more sensitive to the nutritional needs of pregnant and lactating women as well as children.
- **Agricultural diversification is key: to increase resilience and food security also during times of (climatic) shocks, it is important to support** 1) the production and consumption of drought-resilient staple crops such as sorghum and millet as well as 2) the production and consumption of (small) livestock and fish.
- Appropriate child feeding practices in specific age groups need to be highlighted more with the beneficiaries (low MMF from 18 to 23 months and low MDD from 6 to 8 months), the importance of exclusive breastfeeding in the first 6 months needs to be emphasized more.
- **Stronger emphasis on continuous breastfeeding until the age of 2 is necessary.** From 18 to 23 months less than 30% of beneficiary mothers complied in 2024. Even when dietary diversity is higher – beneficiary children were weaned earlier than the control group!
- Even more emphasis on the consumption of legumes, fruits, groundnuts[1] and eggs as well as Vit-A rich food is needed to increase consumption.
- **The strategic inclusion and addressing of men as well as gender (transformative) approaches as part of the project design are important to reach lasting nutrition outcomes.**
- **To achieve consistent improvements in WASH a more targeted approach might be more effective, meaning interventions should target fewer aspects but then with more focus.** Same applies for the monitoring of WASH aspects, multidimensional indicators as in the case of FANSER should be avoided.

[1] Particularly in Luapula province where the consumption was mostly below 30%



