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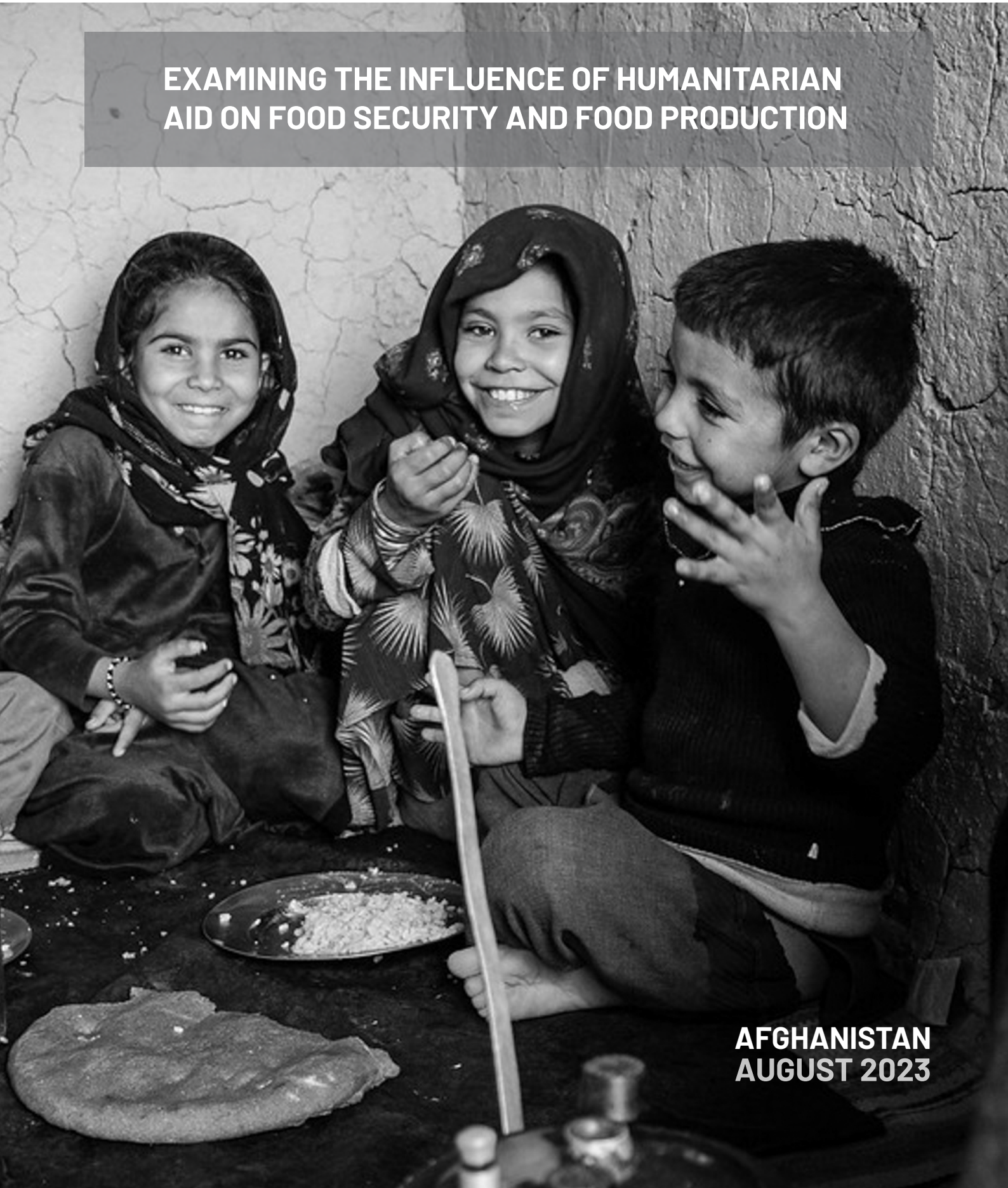
AFGHANISTAN FOOD SECURITY & AGRICULTURE CLUSTER

EXAMINING THE INFLUENCE OF HUMANITARIAN AID ON FOOD SECURITY AND FOOD PRODUCTION



AFGHANISTAN
AUGUST 2023

SUMMARY

The report examines the impact of humanitarian assistance on food production and consumption in 4 provinces which were classified as food insecure, according to the 2022 IPC Acute Food Insecurity findings. Findings from this study indicate that households relying on humanitarian assistance (cash-inkind-vouchers) showed a stronger tendency to spend on food, irrespective of the aid modality, with approximately 89% of households reported utilizing the provided humanitarian assistance (cash-vouchers) on food purchases. The study also revealed cash received via HFA was used for a variety of needs aside from food related expenses, which reechoes the cross-cutting value of cash transfers in humanitarian assistance. The majority of recipients (55%) reported increased food consumption due to humanitarian assistance, with 24% strongly agreeing. On food production, 18.94% strongly agreed and 58.39% agreed that the agricultural package boosted their food production. These findings underscore the importance of targeted assistance for addressing food consumption and production. The report also highlights the compelling preference for cash assistance modality throughout different sections, indicating its prominent role in humanitarian assistance as indicated in the overall findings and recommendations.

Contents

Glossary

Food insecure: A state when people do not have adequate physical, social, or economic access to sufficient, safe, and nutritious food that meets their dietary needs for an active and healthy life.

Cereals and tubers: Categories of food. Cereals include grains like rice, wheat, and corn. Tubers refer to root vegetables like potatoes and yams.

AFG: Afghan Afghani, the currency of Afghanistan.

AOI: Areas of Interest

HNO: Humanitarian Needs Overview for 2023, a document that provides a consolidated overview of humanitarian needs.

Unrestricted-unconditional cash: Financial aid given without any conditions attached and can be used as the beneficiary sees fit.

IPC (Integrated Food Security Phase Classification): A tool that provides a global standard for classifying the severity and magnitude of food insecurity and malnutrition.

Logistic Regression: A statistical method used to model the probability of a certain class or event existing.

Interquartile Range (IQR): A measure of statistical dispersion, or in other words, the data spread or variability.

Kruskal-Wallis test: A non-parametric method for testing whether samples originate from the same distribution. It's used for comparing two or more independent samples of equal or different sample sizes.

Confidence Interval: Provides an estimated range of values that is likely to include an unknown population parameter, a range that is calculated from a given set of sample data.

Non-response Rate: The percentage of people who were selected for a survey but did not participate.

Coping Strategies: Adaptive methods employed by individuals or households to manage and navigate challenging situations, such as food shortages.

INTRODUCTION

Humanitarian assistance is crucial for addressing food insecurity for vulnerable communities, especially in conflict and climate crisis affected regions. With increasing burden of economic and political instability in Afghanistan, worsened by the prevalent climate risks such as floods, multi-year droughts, accessing humanitarian assistance continues to be a crucial need for the most vulnerable groups who face the most severe food insecurity outcomes. The 2023 Afghanistan Humanitarian Needs Overview (HNO) indicated that 23 million people needed food and agricultural related assistance[1]. Strengthening food security and agriculture outcomes are central to addressing the immediate needs and rebuilding community resilience for most Afghans, as they generate multiplier effects in nutrition, health, livelihood, and protection outcomes.[2]

This report present findings from iMMAP study on the effect of humanitarian food assistance on food production and consumption and was developed with collaboration with the Afghanistan Food Security and Agriculture Cluster (FSAC). It looks at indicators such as cash use, assistance methods, and agriculture packages to see how effective they are at improving households' food consumption and production. By examining these indicators, this report aims to provide a comprehensive understanding of the impact of humanitarian assistance on food security in Afghanistan. The findings and recommendations will help make evidence-based decisions and create more effective interventions to address the urgent food security needs of vulnerable populations.

OBJECTIVES

iMMAP in collaboration with FSAC Afghanistan established clear and carefully considered objectives for this study. The assessment questionnaire was also designed and aligned with these objectives, following the require processes. The following are the objective of the study presented in this report.

Objective 1: Cash from Humanitarian Food Assistance for Food Purchases

This indicator examines to what extent households use cash from humanitarian food assistance to buy food. By analysing the types of food purchased, we can understand beneficiary households' patterns and preferences, providing insights into the impact of cash assistance on food access, dietary diversity, and overall well-being.

Objective 2: Impact of Humanitarian Food Assistance on Household Food Consumption

This indicator focuses on the impact of different forms of assistance on household food consumption. By evaluating the effectiveness of modalities such as unrestricted-unconditional cash, vouchers, in-kind distributions, and one-off or multiple rounds of distribution, we can assess their influence on improving food security outcomes and household resilience.

Objective 3: Impact of Agriculture Packages on Household Food/Wheat Production

This indicator assesses the impact of agriculture packages on increasing households' food and wheat production. By evaluating the effectiveness of these packages in enhancing agricultural practices, access to inputs, and overall productivity, we can identify the potential of such interventions to contribute to long-term food security and self-sufficiency.

[1] https://reliefweb.int/report/afghanistan/afghanistan-humanitarian-needs-overview-2023-january-2023
[2] https://www.fao.org/3/cb6398en/cb6398en.pdf

METHODOLOGY

Research Design

This research study used data from the FSAC survey in Afghanistan, collected with support from Premise. Premise has a network of over 5.5 million local contributors[3] for overall the world who complete tasks through a mobile app for financial compensation. Advanced quality control mechanisms were used to ensure the reliability and validity of the data. The study analysed data from December 2022 to the January 2023, with local contributors providing comprehensive representation of the local context. The study provides insights on food security and agriculture in Afghanistan for stakeholders to address challenges.

Method

The data for this study was collected using a remote data collection methodology leveraging the Premise platform. The platform capitalizes on the power of crowdsourcing, engaging a vast network of contributors who utilize the Premise mobile app to enter data personally and remotely, thus allowing for a wide geographical coverage and rapid data collection.

Due to the rural nature of the primary AOI, reaching the desired sample size proved challenging. To address this obstacle, iMMAP partnered with local civil society organizations to invite more community members to join the Premise platform and expand the Contributor network.

Despite these efforts, the growth of the Contributor network in these areas was slower than anticipated. To overcome this challenge, the data collection was extended to include neighbouring provinces that share kinship ties and livelihood activities with the original AOI.

The unit of analysis for this study was at the household level. The survey was distributed to individuals across various regions, and the respondents were asked to provide information about households. This approach was chosen because it is often the household that receives and distributes resources among its members, making it a crucial unit for understanding the distribution and impact of humanitarian assistance.

The study specifically targeted individuals who confirmed that they or any members of their household had received humanitarian assistance in the form of cash, food, or agricultural and/or livelihood assistance within the past 12 months. By focusing on this demographic, the study aimed to gain insights directly from the recipients of aid, thus ensuring the data collected was both relevant and informative for understanding the distribution, utilization, and impact of humanitarian aid in these regions.

This combination of remote data collection, personal entry, and a focus on households that have received humanitarian assistance in the recent past, allowed for the collection of rich, meaningful data that can contribute to a more nuanced understanding of the humanitarian situation and the effectiveness of aid distribution.

Sampling Characteristics

The study's sampling design was created with consideration of the unique geographical characteristics of the areas of interest (AOI). The expanded sampling included four provinces: Balkh, Kunar, Hirat and Khost. It is noteworthy that the food security status of these provinces, as projected by the IPC AFI[4] from November to March 2022, varies across the AOI. Balkh province has been identified as being in IPC Phase 4, which represents the highest level of severity on a scale of 1 to 5. Conversely, Kunar, Hirat, and Khost provinces have been classified as being in Phase 3. These findings offer valuable insights into the diverse food security conditions prevalent in the AOI and contribute to the comprehensive

[3] This number is around 5000 for Afghanistan.

[4] https://www.ipcinfo.org/ipc-country-analysis/details-map/en/c/1156270/?iso3=AFG

understanding of the study's context. Each group contributed approximately 385 responses, except for Khost with 257, ensuring a diverse and representative sample that maintained the overall integrity of the original AOI[5].

This adaptive approach to sampling enabled the study to achieve its goals despite the initial challenges encountered.

However, certain challenges were encountered, including a non-response rate that affected the planned sample size. As a result, the distribution of the actual sampling differed from the initial plan. These variations can be visually observed when examining the geographical distribution of the collected data on a map. Despite these discrepancies, efforts were made to obtain a comprehensive understanding of the targeted areas and ensure that the data collected still provided valuable insights into the humanitarian needs of the surveyed population.

Demography

The sampling characteristics distribution provides insights into the demographic composition and financial situations of the participants in the study. In terms of gender, the majority of the sample (88%) identified as male, while 11% identified as female, and 1% preferred not to answer. Non-binary gender identities were not represented in the sample. Regarding age groups, the largest proportion (70%) fell within the 18 to 25 years old category, followed by 26 to 35 years old (22%), and under 18 (3%).

The distribution of financial situations reveals that a significant portion of the participants (47%) reported not being able to afford enough food for their families, while 18% could only afford food but nothing else. A smaller percentage (16%) indicated they could afford food and regular expenses, but no additional expenses.

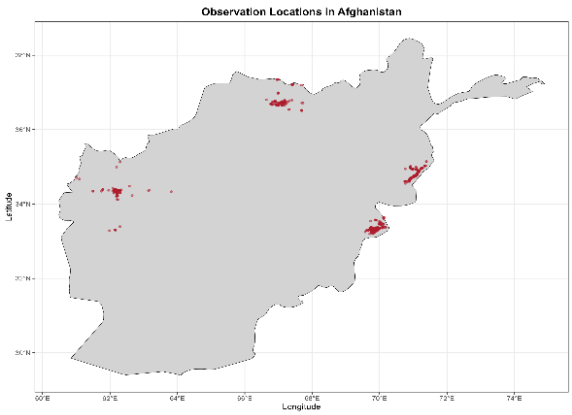


Figure 1:Map Explains Sampling Distribution- Points

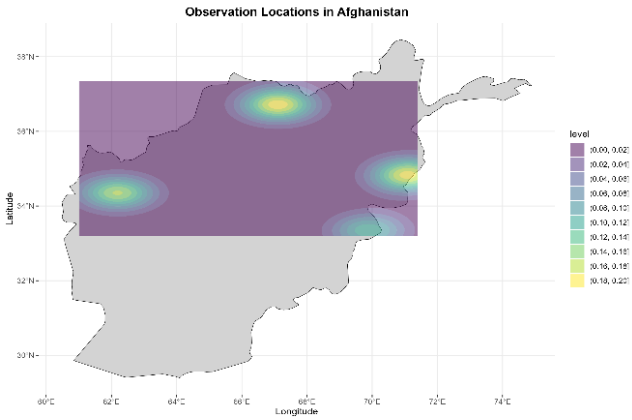


Figure 2:Map Explaining Sampling Distribution- Heatmap

MAIN FINDINGS

Objective 1: Cash from Humanitarian Food Assistance for Food Purchases

Examining the allocation of humanitarian cash assistance[6], the spending breakdown across different components provides a comprehensive overview. The majority of the assistance, approximately 87%, was allocated towards food, highlighting the significance of addressing immediate nutritional needs. Clothes accounted for 26% of the spending, emphasizing the importance of meeting basic clothing requirements. Health and education received approximately 26% and 20% of the assistance, respectively, indicating the commitment towards ensuring access to essential healthcare and educational resources.

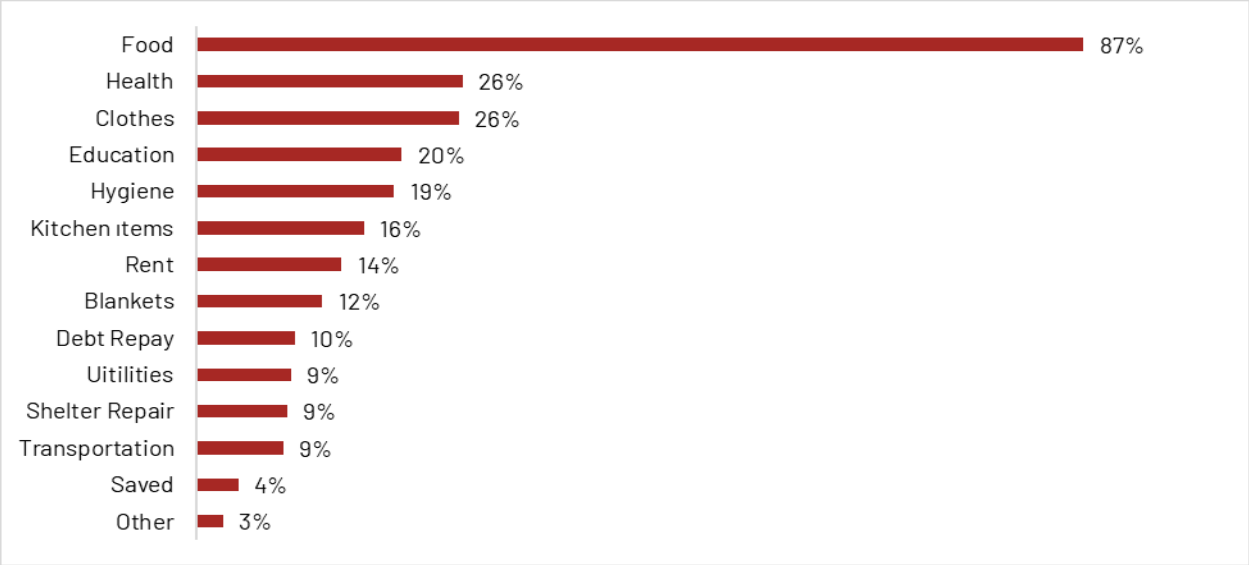


Figure 3: Allocation of Humanitarian Cash Assistance: Spending Breakdown

The analysis of household spending patterns based on the type of food purchases, of those who spend assistance on food (233 out of 269) made using humanitarian cash assistance reveals interesting insights. Among the various types of food, cereals and tubers accounted for the highest proportion, constituting approximately 75%. Pulses followed closely behind, representing around 56% of the purchases, while vegetables accounted for 29%. Condiments and oil/fats each comprised approximately 21% of the food purchases. Fruits, meat, fish, and sugar each constituted close to 15% or less of the total food purchases.

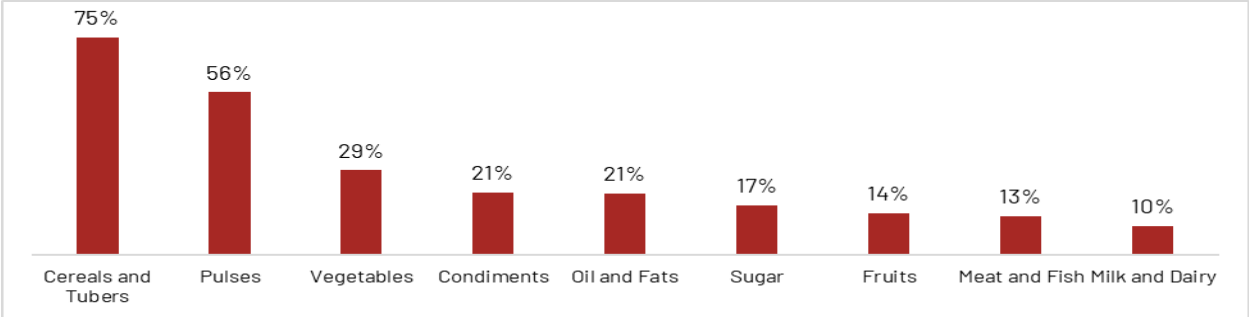


Figure 4: Type of Food Purchase Ration by Household with Humanitarian Cash Assistances

[6] Note that this question is asked to households who has more than one rounds of humanitarian assistance, 269 out of 1483.

The duration (consumption time)[7] of humanitarian assistance (cash) received by households varied within the surveyed population. The majority, around 27%, reported assistance lasts for one week, following that, approximately 20% of households received assistance for two and 17% for three weeks.

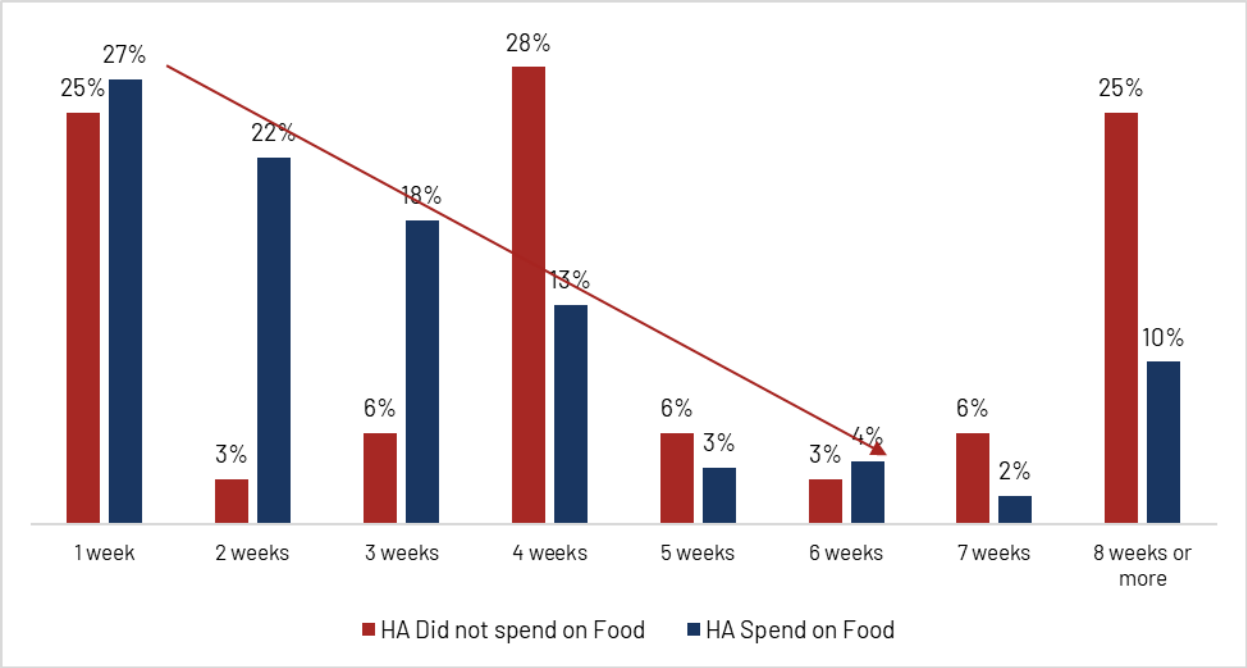


Figure 5: Duration of Assistance by Food Allocation

Yet, 1 out of 2 households, if they choose to spend their humanitarian assistance, even partially on food, find that the assistance typically lasts for a duration of up to two weeks. Which reflects that if assistance spends on food, it will probably burn faster. The analysis of cash assistance spending on food in relation to who leads the cash assistance at home (such as husband/wife, elder daughter/son, or husband and wife) revealed **no significant differences**. Regardless of the household member responsible for managing the cash assistance, the spending patterns on food remained similar. Overall distribution for managing humanitarian assistance is 48% husband, 22% bot husband and wife and 6% wife.

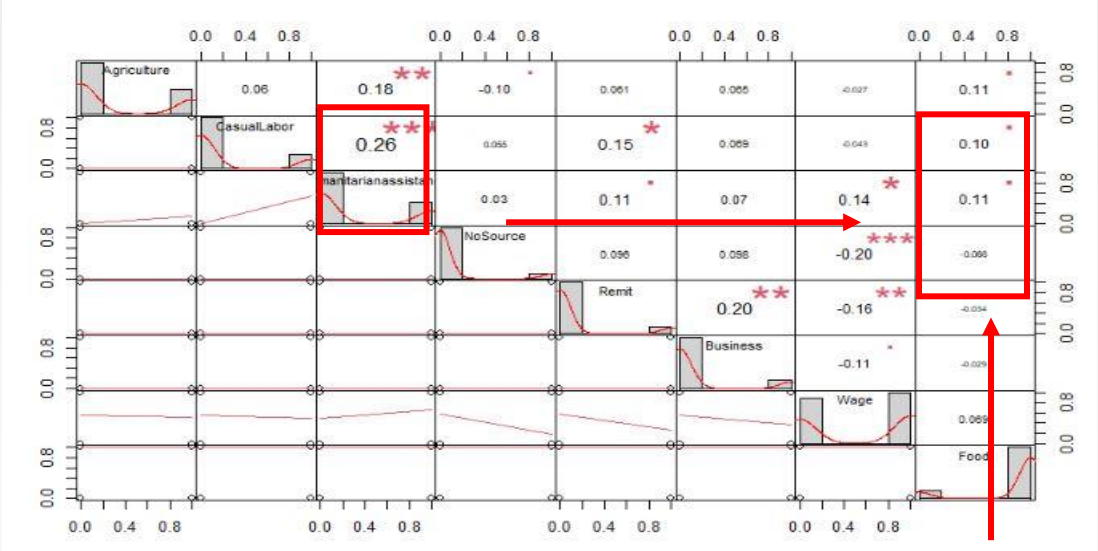
Objective 2: Impact of Humanitarian Food Assistance on Household Food Consumption

The perception of households regarding the impact of humanitarian assistance on their food consumption was assessed. A majority of respondent households, comprising **56%**, expressed agreement with the notion that their food consumption had increased as a result of the assistance received. Additionally, **22%** of households strongly agreed with this statement, further emphasizing the positive influence of humanitarian assistance on their food consumption. A relatively small percentage, 14%, maintained a neutral stance, while only 6% disagreed and 2% strongly disagreed with the assertion. These findings suggest that a significant proportion of households perceive a tangible improvement in their food consumption as a direct consequence of the humanitarian assistance provided.

[7] Answer to question: How long did the assistance last for your household?

Type of Livelihood vs HA Usage on Food

Upon examining the correlation between livelihood types and spending of humanitarian assistance on food, a noteworthy finding emerged. Among the livelihood types considered, namely Agriculture, Casual Labor, Humanitarian Assistance, and Business etc., households who identified their livelihood as "Humanitarian Assistance" demonstrated a stronger correlation with spending their assistance on food.



The logistic regression model was applied to examine the relationship between the improved food consumption outcome and different forms of HA. The analysis included three forms of assistance: cash, in-kind, and vouchers. Based on the coefficients, households receiving cash assistance had a positive effect on improved food consumption, with an estimated coefficient of 0.4330. This suggests that households receiving cash assistance were **more likely to experience improved food consumption** compared to those without cash assistance. Overall, this logistic regression analysis provides insights into the association between different forms of humanitarian assistance and improved food consumption, **highlighting the positive impact of cash assistance** while observing no significant effects for in-kind assistance and vouchers.

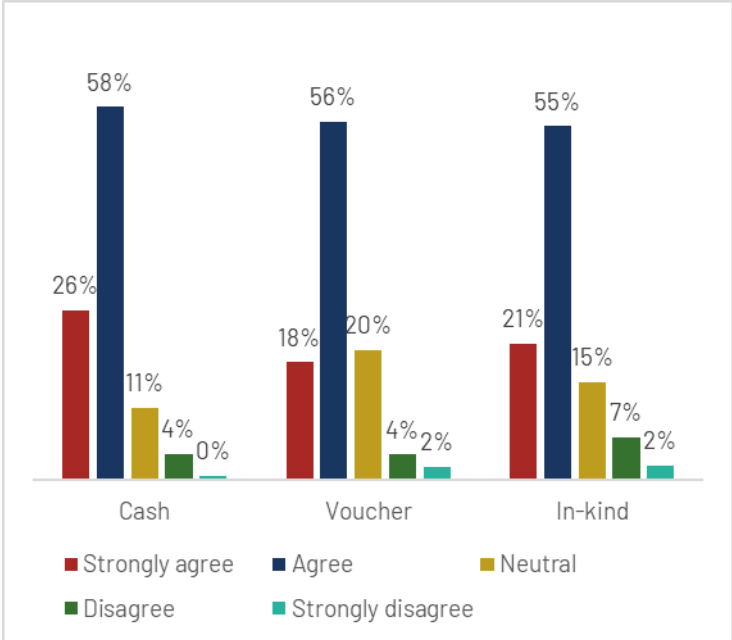


Figure 6: Modality of HA vs Biased FC Improvement

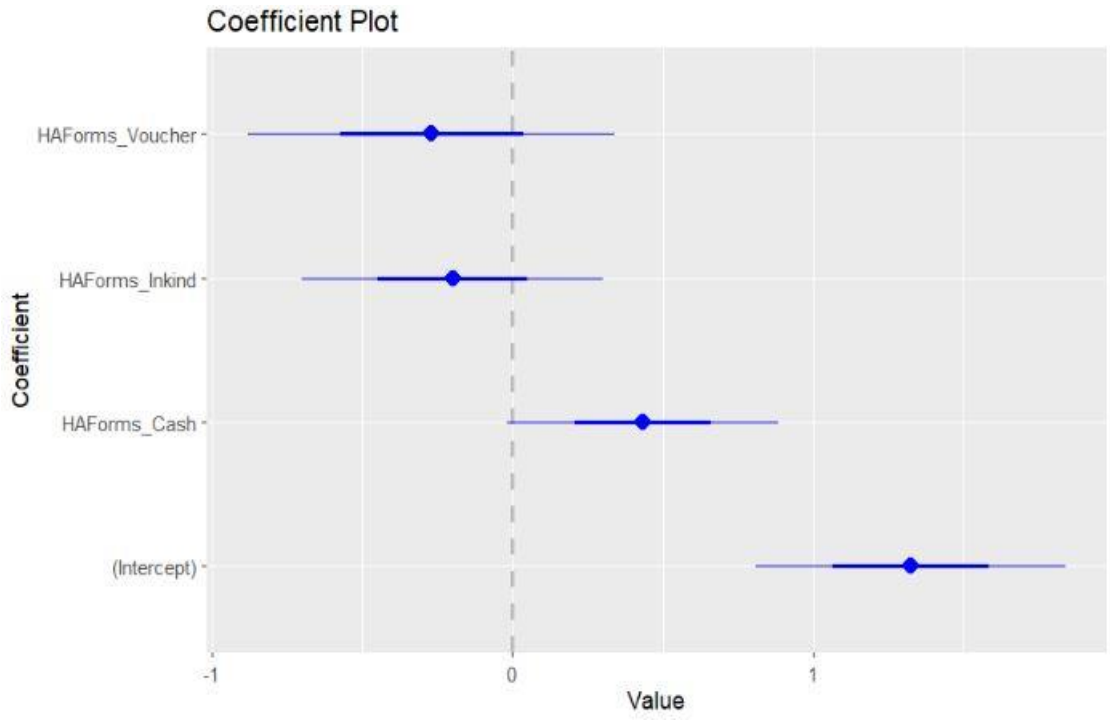


Figure 7: Logistic Regression Coefficients

To investigate the correlation between cash assistance and increased food consumption, the "Cash assistance amount" variable was cleaned using the Interquartile Range Method (IQR) and also null values removed. After cleaning, the number of records was reduced from 1482 to 245. The objective was to determine the cash amount that resulted in an increase in food consumption. Cleaning the dataset with the IQR method and removing missing values allowed for a more focused analysis of the relationship between cash assistance and food consumption improvements.

The Kruskal-Wallis test was conducted to examine the relationship between the amount of cash assistance received and the level of agreement with the statement; "The HA my household received has improved our food consumption options." The results of the test (**p-value = 0.2733**) indicate that there is no statistically significant difference in the distributions of cash assistance across the different levels of agreement. In other words, the amount of cash assistance received does not seem to significantly affect the agreement with the statement about the improvement of food consumption options due to the received humanitarian assistance, according to this test**.** Upon examining the central tendencies of the data, it was observed that the neutral points in the responses regarding the relationship between cash assistance amount and food consumption were concentrated around 5000 AFG[8].

[8] Considering food basket is around 8241 Afghani (96$) (Sept 2022, WFP MEB), we may relate self-reported finding as a gap (5000 AFG, 58$). Requires further investigation.

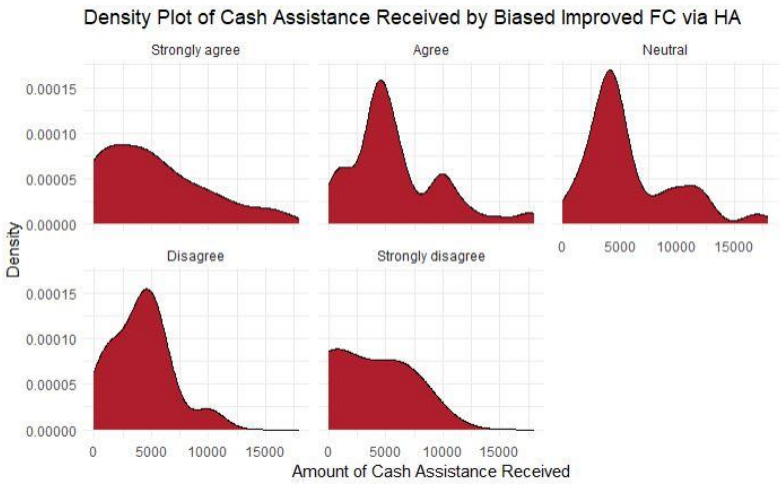


Figure 8: Cash Assistance Amount Distributed by Perceptions in Improved Food Consumption

Objective 3: Impact of Agriculture Packages on Household Food/Wheat Production

Study indicates that out of 1482 sampled cases, 211 households, representing 14% of the total, received an agricultural assistance package.

The impact of these agricultural packages on food production was largely positive, with a significant majority of recipients reporting beneficial effects. Specifically, 18% of the households strongly agreed and 58% agreed that the agricultural package increased their food production.

A smaller proportion of households, 15%, remained neutral on the impact of the assistance, while 7% disagreed and a minimal 2% strongly disagreed that the package had increased their food production.

When asked about their preferred form of humanitarian assistance modality, the households showed a clear preference for cash assistance, with 82% selecting this option. In-kind assistance was the second most preferred option, chosen by 11% of households. Voucher assistance was preferred by 8% of households.

These findings highlight the importance of agricultural assistance in enhancing food production among the surveyed households. They also underscore the need for humanitarian aid to be flexible and responsive to the preferences of the recipients, with cash or voucher assistance appearing to be the most preferred form of aid among the households surveyed.

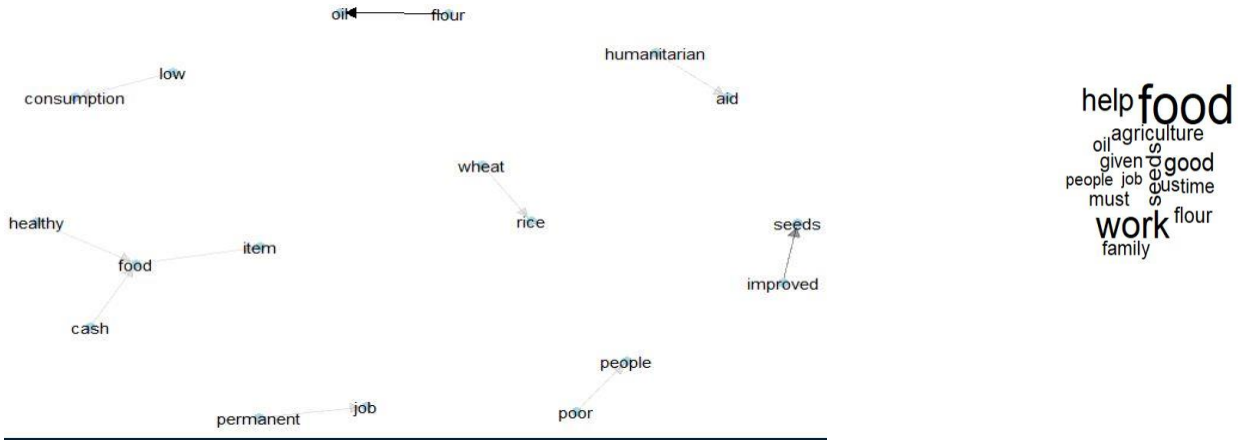


Figure 9: Network Analysis and Word Cloud of Recommendations for Improved Food Production

Through text mining and network analysis of people's recommendations on improving food production, two distinct groups emerged. The first group appeared to have misunderstood the question, focusing their recommendations on immediate food consumption needs. This group specifically requested assistance in the form of flour and oil, indicating a prevalent issue of low food consumption within the population.

On the other hand, the second group provided valuable insights into enhancing food production. Their recommendations centred around the importance of cash assistance programs. Recognizing the need for sustainable solutions, this group emphasized the potential impact of providing financial support to individuals and households, enabling them to invest in agricultural activities and boost food production.

Interestingly, within the second group, some individuals highlighted the significance of training programs related to cultivation techniques and the distribution of chickens. These suggestions indicate a recognition of the need to enhance agricultural knowledge and diversify food sources.

Overall, these findings underscore the heavy reliance of the population on humanitarian assistance for addressing food production challenges. The insights gathered from the analysis call for a comprehensive approach that not only addresses immediate consumption needs but also focuses on empowering individuals through cash assistance, agricultural training, and the promotion of sustainable food production methods.

Further Analysis

During the analysis step, it was found that out of all respondents, 40% reported themselves as being displaced, while 55% indicated that they were not displaced. A small proportion of respondentss, 5%, were unsure about their displacement status.

Among those who reported being displaced, the primary reason cited was conflict, with 68% of displaced respondents attributing their displacement to this cause. Natural disasters were the second most common cause, accounting for 14% of displacement cases. A smaller proportion of respondents, 9% identified as documented returnees, while 2% were undocumented returnees. Other reasons for displacement, such as access to education, poverty and job opportunities, and security concerns, were cited by a minority of respondents.

When examining the correlation between displacement status and meal consumption, notable differences found. Among those not displaced, 12% reported having one meal per day, 35% reported having two meals, and 44% reported having three meals. Only a small proportion reported having four meals (2%), five or more meals (2%), or no meals (5%).

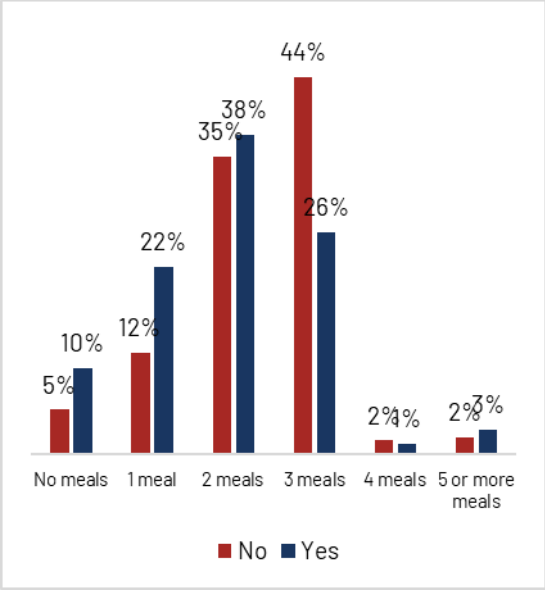


Figure 10: Displacement Status and # Meal Per Day

However, among those displaced, the proportion of respondents reporting only one meal per day increased to 22%, while those reporting two meals remained relatively stable at 38%. The proportion of displaced respondents reporting three meals per day decreased to 26%. Similar to non-displaced respondents, only a small proportion of displaced respondents reported having four meals (1%) or five or more meals (3%). However, the proportion of displaced respondents reporting no meals increased to 10%.

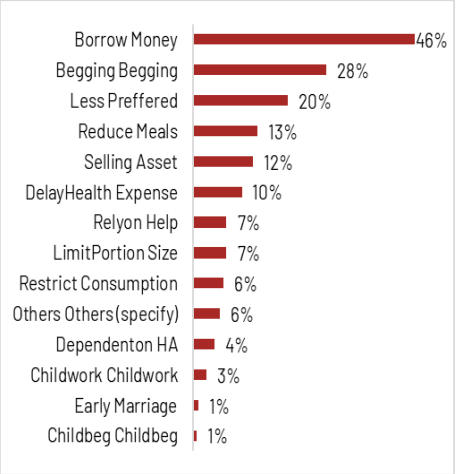


Figure 11: Coping Strategies for Food

The survey data reveals that 41% of households apply coping strategies to manage food shortages. These strategies vary based on the number of meals consumed per day. For instance, among those consuming one meal per day, 33% apply coping mechanisms. This figure rises to 45% for those consuming two meals per day and slightly decreases to 42% for those consuming three meals. However, for households consuming five or more meals per day, only 16% apply coping mechanisms.

The most common coping strategies include borrowing money (45%), begging (25%), and consuming less preferred food (22%). These findings underscore the diverse strategies households employ to cope with food insecurity.

Conclusions

The study conducted in Afghanistan for the FSAC has provided valuable insights into the allocation and impact of humanitarian assistance. The majority of the assistance was allocated towards food, reflecting the critical need to address immediate nutritional needs in the region.

Households that identified their livelihood as "Humanitarian Assistance"[9] demonstrated a stronger correlation with spending their assistance on food, indicating the significant role of such aid in supporting food security. The positive impact of agricultural packages on food production was also evident, with a majority of recipients reporting increased food production as a result.

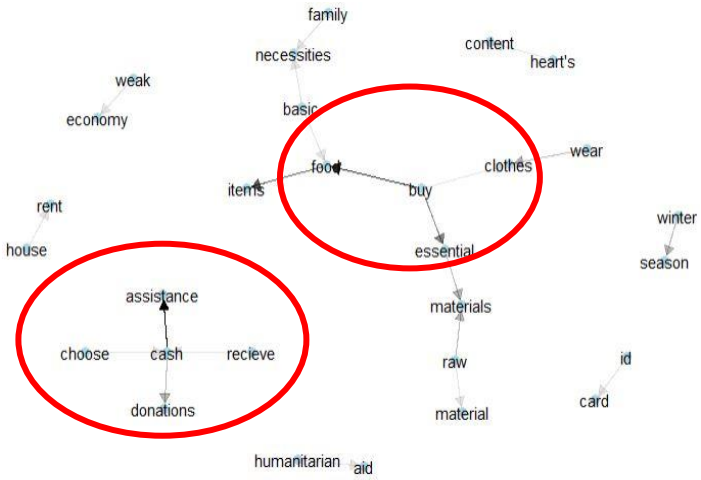


Figure 12: Text mining for "preferences of assistance "

The study also revealed the adaptive strategies households employ to cope with food shortages, with 40% of households applying various coping mechanisms. These strategies, however, varied based on the number of meals consumed per day, indicating the complex interplay between food availability and coping strategies.

[9] Household does not have any income and totally depending on humanitarian assistances.

Recommendations

Based on the findings of this comprehensive study, a set of recommendations have been developed to enhance the effectiveness of humanitarian assistance in Afghanistan. These recommendations aim to address the diverse needs of the population, as revealed by the allocation of assistance across various categories, and to support the adaptive strategies households employ to manage food shortages. By aligning humanitarian efforts with the specific needs and strategies of households, it is hoped that these recommendations will contribute to improved food security and overall well-being in the region. The following sections detail these recommendations.

Strengthen Cash Assistance Programs: Given the positive correlation between cash assistance and improved food consumption, there should be a focus on expanding and improving cash assistance programs. This includes timely disbursement, targeted support to vulnerable households, and financial literacy programs to promote effective utilization.

Expand Agricultural Assistance: Given the positive feedback on agricultural packages, expanding these programs could further enhance food production and contribute to long-term food security.

Sustainable Solutions: The recommendations from households for cash assistance programs to invest in agricultural activities highlight the need for sustainable solutions. Programs that provide financial support for agricultural activities could boost food production and contribute to long-term food security.

Enhance Monitoring and Evaluation: Implement robust monitoring and evaluation mechanisms to track the impact and effectiveness of food assistance programs. Regular assessments of household needs, spending patterns, and the impact of interventions will enable adjustments and improvements to better meet the evolving challenges of food security.

Limitations of the Study

There are several limitations associated with the data collected through signed attendees in the Premise. One significant limitation is that the system relies on smartphone usage and internet access. This reliance introduces a potential bias in the sampling, as it excludes households without internet access or smartphone usage. Consequently, the data may not accurately represent the entire population and could overlook important insights from those without access to these technologies.

Another limitation is related to the sampling and non-response rate. Despite efforts to implement a systematic sampling approach aimed at gathering 385 records with a 95% confidence interval, the non-response rate posed a challenge in achieving the intended sample size. As a result, the distribution of provinces in the dataset may be oversampled in some cases while having fewer samples for certain groups, such as Khost. However, despite these limitations, group-by-group comparison analyses were conducted to explore patterns and differences within the available data.

Due to unforeseen circumstances and a higher non-response rate, it was necessary to make adjustments to the study's original plan. Consequently, certain provinces initially selected for inclusion in the study had to be put on hold. Regrettably, these provinces did not meet the desired criteria for representativeness, leading to their exclusion from the subsequent data analysis. Although their exclusion is unfortunate, it ensures that the analysis focuses on the provinces where data collection was feasible and representative, thus maintaining the integrity of the study's findings.

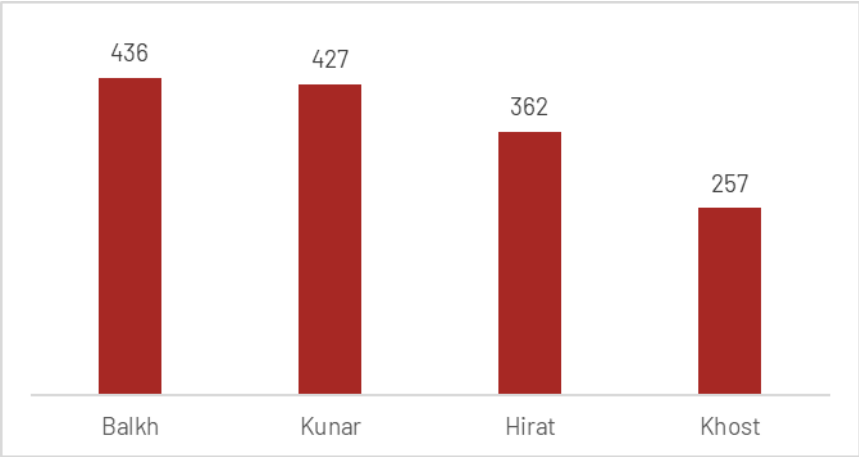


Figure 13: Sampling Distribution by Groups

One notable limitation is the variation in gender participation observed in the survey. The majority of respondents were male, which may introduce a gender bias in the data.

Consequently, the overrepresentation of males in the survey respondents may limit the generalizability of the results, particularly when examining gender-specific issues or drawing conclusions about the entire population. Researchers and readers should be cautious in extrapolating findings related to gender dynamics, as the data may not accurately reflect the experiences and perspectives of Afghan women who are *more likely* to lack access to mobile technology or to Premise platform.

About this Report:

This informative report is made possible the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of iMMAP Inc. and do not necessarily reflect the views of USAID or the United States Government.

iMMAP Inc. has taken the initiative to research and find the impact of humanitarian aid on food security and food production in Afghanistan. The data on the report is based on the survey conducted by iMMAP Inc. in collaboration with the FSAC. The figures and data presented do not represent the official stance or opinion of iMMAP Inc, FSAC and its Cluster Lead Agencies- the Food and Agriculture Organisation and the World Food Programme of the United Nations.

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Photo on Cover:

Mazari Sharif, November 2019: Mariam, 9 years old, and her family fled conflict and found refuge in this village, set in a barren land, 20 kilometers away from Mazar. They survive mainly on tea, bread and rice. Mariam would like to become a doctor when she grows up.

Photo Credit: OCHA/Charlotte Cans