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**INTERVENTION MODEL FOR HOUSEHOLD FOOD
SECURITY IN GAZA STRIP: A CASE STUDY OF
HUMANITARIAN WORK**

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ABSTRACT

The Gaza Strip has long faced severe challenges including trade restrictions, economic recession, high unemployment, poverty, and food insecurity. These issues are aggravated by ongoing regional conflicts, internal political divides, and recurrent violence. Humanitarian assistance has become a critical intervention to address these challenges, aiming to enhance food security and strengthen the social safety net for Gaza's vulnerable populations. This research seeks to evaluate the effectiveness of humanitarian interventions in improving household food security through the development and validation of a targeted intervention model. This model is assessed based on four key criteria: relevance, effectiveness, efficiency, and impact.

Employing a mixed-methods approach, this study combines qualitative and quantitative data collection, including a comprehensive desk review and cross-sectional empirical data gathering. The study's exploratory phase offered foundational insights, followed by a conclusive phase that quantitatively tested hypotheses related to intervention relevance, effectiveness, efficiency, and impact.

Results indicate high relevance and efficiency of interventions in addressing immediate needs, aligning with the community priorities. Effective use of technology and collaboration with local entities enhanced resource utilization, facilitated delivery mechanisms, and ensured rapid, efficient intervention processes. Additionally, the interventions demonstrated significant social impacts.

Overall, this research underscores the importance of humanitarian interventions in enhancing food security, resilience, and gender equity in Gaza. Findings highlight the need for continuous, long-term support to address systemic challenges sustainably.

1 INTRODUCTION

1.1 Study background

The world population is projected to reach 8 billion by 2023 and 10 billion by 2056, driven by rising birth rates in developing countries and increased life expectancy due to medical advancements (Sweileh, 2020). With this population growth, food demand in 2050 is expected to rise by 59–98% compared to 2016 levels (Shin, Kwak, Jo, Kim, & Huh, 2022), necessitating a 70–110% increase in food production ((Pavlova, Sabirova, A.R.Safiulli, & Khairullina, 2021). Agricultural productivity faces significant challenges due to climate change, soil degradation, and water scarcity, all of which impact production efficiency. As these challenges intensify, it becomes increasingly difficult to produce enough food to meet global demand, necessitating compensatory increases in output to offset productivity losses. The FAO (2024) report highlights that around 30% of food produced globally is lost or wasted throughout the supply chain, from post-harvest stages to consumer use. Consequently, to meet the anticipated 98% rise in effective food requirements, total production may need to increase by 110%. This projection, however, assumes that current levels of food waste will remain unchanged, a point that could be critiqued as overly static.

The Global Humanitarian Overview (GHO), an annual evaluation of worldwide humanitarian needs and responses, highlights that conflict, climate shocks, and the threat of a global recession are driving the largest global food crisis in modern history. Hundreds of millions are facing worsening hunger, with acute food insecurity on the rise. By the end of 2022, at least 222 million people in 53 countries are expected to experience acute food insecurity and require immediate assistance ((FAO & WFP, 2022).

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2022, at least 222 million people in 53 countries are expected to experience acute food insecurity and require immediate assistance ((FAO & WFP, 2022). The Sustainable Development Goals (SDGs), a set of 17 ambitious goals aimed at eradicating poverty and hunger and mitigating the worst impacts of climate change within 15 years. Ending poverty and hunger is a fundamental policy goal and the first two goals in the agenda of 2030 (UNDP, 2015). The first goal (SDG1) "no poverty" aims to eliminate global poverty, while the second goal (SDG2) "zero hunger" strives to reduce all forms of inequality, ensure food security, improve nutrition, and promote sustainable agriculture. These SDGs are interconnected, forming crucial elements of sustainability. Hunger is generally perceived as the discomfort or pain resulting from insufficient food energy intake, also known as food deprivation. Poverty is a primary cause of hunger, but inadequate nutrition also contributes to poverty. Though hunger and food security are distinct concepts, they are related; prolonged food insecurity can lead to significant hunger (Hasnain et al., 2021).

Globally, achieving food security poses significant challenges both in meeting the SDG and in enhancing the well-being of many impoverished households. Despite efforts, food security remains a critical issue for numerous countries (Schleifer & Sun, 2020). According to Aliyu et al. (2021), attaining the SDG targets for hunger and poverty reduction, including sustainable food security and collaboration with local producers by 2030, will be difficult as achieving this balance requires more than nine years. A proactive, value-added approach focusing on long-term food security and humanitarian intervention strategies is preferable. Therefore, a deeper understanding of how to anticipate, mitigate, and respond to food security crises more effectively is necessary. Early action to lessen the impact of future crises is crucial not only for preventing severe suffering but also for creating significant efficiencies in humanitarian assistance (Westerveld et al., 2021).

Globally, food insecurity poses a significant nutritional challenge, particularly in countries with low to moderate incomes (Bilbeisi et al., 2022). It's a complex issue tied to deficits in both macro and micronutrients, as well as a lack of dietary variety (Cafiero, Viviani, & Nord, 2018). Food insecurity occurs when individuals lack adequate social, physical, and

economic access to safe, nutritious food that meets their needs and preferences for a healthy, active life (Bilbeisi et al., 2022). While it affects people of all ages, children under five are especially vulnerable (Lawson, Angemi, & Kasirye, 2020). In the Gaza Strip, food insecurity primarily stems from financial constraints that hinder access to food, exacerbated by widespread poverty, unemployment, and environmental challenges like global warming. Limited access to local resources such as water and land, as well as trade barriers, further compound the issue (Al-Hamdallah, 2018, WFP, 2021b). The loss of employment, and subsequently, the inability to afford food, is a key driver of the recent increase in food insecurity. Many households are forced to opt for cheaper, less nutritious food options, reducing the frequency and quality of meals. Basic staples like bread and tea have become dietary staples, with cereals, potatoes, legumes, and inexpensive vegetables forming the bulk of the diet (FAO, IFAD, UNICEF, WFP, & WHO, 2021).

The researcher asserted that previous studies have not concurrently addressed household food security and humanitarian actions, thus identifying a significant gap in the existing literature. This study aims to fill this gap by presenting a logical framework encompassing intervention and evaluation concepts. It introduces a theoretical model for food security intervention within humanitarian contexts and outlines the empirical validation process. Logical frameworks serve as crucial tools to ensure comprehensive coverage of essential areas. The study reviews intervention case studies, analyses the relevance of their strategies, and identifies intervention gaps while anticipating their impacts. Moreover, it evaluates intervention success in resource dissemination, recommends anticipated benefits, assesses impacts on household food security, and gauges intervention efficiency. By offering an intervention model tailored to household food security in the Gaza Strip, this study contributes to knowledge dissemination and encourages further exploration of effective approaches, their beneficiaries, implementation methods, and contextual factors influencing outcomes.

1.2 Problem statement

Over the past few years, the situation in the Gaza Strip has stayed mostly the same, facing ongoing issues like prolonged conflict, economic

stagnation, widespread unemployment, gender inequalities, and alarming levels of poverty and food insecurity. Specifically, the region has been grappling with a significant challenge regarding food insecurity, with the situation worsening recently. Currently, 63 percent of families are food insecure to varying degrees, including both severely and moderately food insecure households, with 2 percent classified as severely food insecure (FSS, 2023). Food insecurity in the Gaza Strip stems from the insufficient economic means to access food, driven by high poverty and unemployment rates among Palestinian households. This leads to fluctuating access to food, where one day families may struggle due to food scarcity, while the next they may have an abundance due to activities like fishing, agriculture, and employment opportunities. For them, achieving food security is intricately linked to the political landscape. They believe that if they are left alone by the Israelis and spared from the hardships imposed upon them, they would have the means to sustain themselves through livelihood activities such as farming, fishing, and trade. In essence, their food security hinges on achieving political stability and the ability to pursue economic activities freely (Nassar, Naárné Tóth, & Vasa, 2022).

The humanitarian condition in the oPt is marked by a persistent crisis in protection due to over 55 years of Israeli military control, a 15-year blockade of the Gaza Strip, internal divisions among Palestinians, lack of adherence to international humanitarian and human rights laws, and frequent outbreaks of violence between Israeli security forces and Palestinian armed groups. These factors lead to ongoing concerns for protection and humanitarian requirements, which persist without a lasting political resolution. The situation is exacerbated in Gaza by the prolonged blockade (OCHA, 2021a). The prolonged crisis imposes various obstacles on Palestinians' means of sustaining their livelihoods, including limited access to job opportunities and the destruction of productive assets. The humanitarian situation is particularly difficult and dangerous in the Gaza Strip, where over two million Palestinians face or are at risk of encountering significant unemployment and food insecurity, alongside inadequate or disrupted access to essential services for the most vulnerable households. These challenges are compounded by the limited or worsening capacity of vulnerable households to cope with the prolonged humanitarian crisis and the recurrent cycle of man-made shocks, leading to high levels

of poverty, disrupted livelihoods, and inadequate access to essential services. Consequently, humanitarian assistance will remain necessary in 2022 to address these pressing needs (OCHA, 2021b).

In 2022, the HCT anticipates that around 1.75 million Palestinians throughout the oPt will need some form of humanitarian assistance to ensure food security, with 1.3 million of them (76%) residing in the Gaza Strip across all its governorates. Households were assessed on a scale of severity ranging from none to catastrophic none, stress, severe, extreme, catastrophic), with the People In Need (PIN) being the sum of those categorized as severe, extreme, and catastrophic. The FSS aims to assist 1.63 million of the 1.75 million Palestinians identified with a PIN for food security assistance (OCHA, 2021c). According to the FSS (2022) and the HRP (2022), the food security sector requires \$271.1 million, which accounts for 53 percent of the total funds requested across all clusters/sectors.

The food security problem in Gaza Strip is represented at the national level by: Firstly, growing dependence on humanitarian assistance as the most used solutions to alleviate food insecurity. Food assistance will continue to be a top priority. In the Gaza Strip, humanitarian interventions have been primarily directed towards ensuring human food security, with conflict and insecurity being the primary drivers of severe hunger. Consequently, the population must rely heavily on humanitarian assistance. The prolonged crisis has significantly weakened the food security of most households, undermining their ability to cope and living conditions. Palestinians in the region are increasingly dependent on humanitarian assistance to meet their basic needs, especially as the number of poorer, less resilient, and food-insecure households rises. Humanitarian assistance remains crucial for those experiencing food insecurity or at risk of it, aiming to prevent resorting to negative coping mechanisms that would exacerbate the situation. These mechanisms include poor dietary intake, selling assets, accumulating debts, withdrawing children from school, unsafe migration, over-exploitation of natural resources, and engaging in illegal or exploitative activities (UNRWA, 2021). Secondly, the government and private sector are being marginalized, allowing the international

organizations and non-governmental organizations to become the main source of assistance.

Humanitarian intervention strategies have evolved to address the needs of the Gaza Strip, playing a vital role in government-led and international responses by reinforcing the social safety net. General food distribution, food voucher programs for school snacks, and initiatives like food-for-work and food-for-training have been praised by humanitarian organizations for their effectiveness in reducing food insecurity (Samia, Naárné Tóth, & Vasa, 2021). In 2021, United Nations development agencies, international humanitarian networks, national and international NGOs, and donor agencies intensified their efforts to broaden involvement and support ongoing humanitarian assistance needs (OCHA, 2021a). However, at the household level, many individuals still struggle to access sufficient food, resulting in a significant proportion of insecure households in the country. Donor fatigue is often cited as a reason for inadequate support, but it is also influenced by a country's position on strategic political objectives. This cycle of underdevelopment weakens community resilience and increases the human and financial costs of recovery (Nassar, Naárné Tóth, & Vasa, 2023)

1.3 Research questions and hypotheses

The study's major goal is to address the question, what are the possibilities for developing an intervention model for household food security through humanitarian interventions in Gaza Strip? Then validates the model through the evaluation approach. Furthermore, it summarizes and creates lessons on both service quality and the impacts of food security responses in the Gaza Strip, with a focus on the approaches and implementation support available from the organization and its partners. Following recommendations from the exploratory research by reviewing of literature on food security interventions and related studies. To guide the collecting of data necessary to meet the problem statement, research questions and hypotheses will be addressed as explained in Table 1-1.

Table 1-1: Research questions and hypotheses

#	Research Question	Hypotheses
1	To what extent did food security interventions meet the immediate needs of households?	H1: Humanitarian Interventions for food security are relevant interventions.
2	To what extent did food security interventions achieve their objectives including the timely delivery of relief assistance?	H2: Humanitarian Interventions for food security are effective in achieving their objectives.
3	To what extent did adequate access to resources have a significant effect on the efficiency of food security's intervention?	H3: Adequate access to resources has a significant effect on the efficiency of humanitarian intervention for food security
4	What intended and unintended impact has the food security interventions made on the household?	H4: Humanitarian Interventions for food security have a significant impact on household food security.

1.4 Significance of the research

This research aims to develop a household food security model for the Gaza Strip through humanitarian interventions, crucial for enhancing economic empowerment and resilience. These interventions encompass various forms of assistance already in use in the region. The theoretical significance lies in addressing a critical issue pivotal for achieving heightened food security through such interventions. On a practical level, it seeks to identify gaps in household food security and propose solutions through humanitarian efforts. Emphasizing best practices, it strives to elevate intervention effectiveness and performance. Moreover, as decision-making is central to management, this research helps policymakers in shaping future humanitarian interventions. Given the dire state of the Palestinian economy, heavily reliant on external funding, the study's insights are

crucial, particularly for advancing progress towards SDGs within the country.

Many humanitarian organizations maintain a Monitoring, Evaluation, Accountability, and Learning (MEAL) department, responsible for overseeing project assessments and providing support and guidance on evaluation methodologies to partners. Within these organizations, evaluation holds significant importance for results-driven management and organizational advancement (Nassar, 2017). It delves into the processes and outcomes of projects, elucidating the reasons behind their success or failure, and assessing their relevance and sustainability. Evaluations also explore unintended consequences and the cost-effectiveness of implemented initiatives. Consequently, they inform decision-making regarding projects, programs, and cooperation strategies in Palestinian international development efforts. The outcomes of this study will enhance humanitarian endeavours through rigorous evaluation, assisting in the planning and execution of Palestinian cooperation strategies, and fostering organizational growth. Intended for use by humanitarian organizations, donors, as well as governmental and non-governmental entities within Palestine, the research will guide the development of future food security initiatives and inform the adoption of interventions in contexts of food insecurity. The evaluation process serves dual purposes: ensuring accountability, particularly to donors and partners, while also facilitating learning within humanitarian organizations for future program enhancements.

2 MATERIALS AND METHOD

2.1 The intervention model

The intervention model outlines the logical steps of an intervention: problem identification, establishment of objectives, planning and implementation, monitoring, and evaluation. Problem identification is achieved through a critical analysis of current plans and studies, along with comprehensive stakeholder engagement. Models are useful tools for representing complex realities. Their simplicity is a major strength, as it allows them to manage complicated ideas and situations effectively. However, this simplicity can also be a vulnerability, potentially leading to the oversight of critical components (Eryarsoy, Shahmanzari, & Tanrisever, 2023). During the intervention design stage, planned interventions should ideally be based on a theory explaining how they will achieve the desired outcomes. These explicit theories are often represented as logic models. The goal of food security interventions is to enhance food security outcomes by reducing exposure to shocks or hazards and improving families' resilience to such shocks (Nassar, Hossain, Naárné, & Vasa, 2024). Figure 2-1 illustrates the logical framework for food security intervention, drawing on intervention planning frameworks from various authors (Muhialdin, Filimonau, Qasem, & Algboory, 2021); (Sseguya, Mazur, & Flora, 2017); (Buchanan-Smith, Cosgrave, & Warner, 2016); (Carletto, Zezza, & Banerjee, 2013); (Maxwell & Smith, 1992)). The logical framework is beneficial as it enables systematic intervention and thorough evaluation.

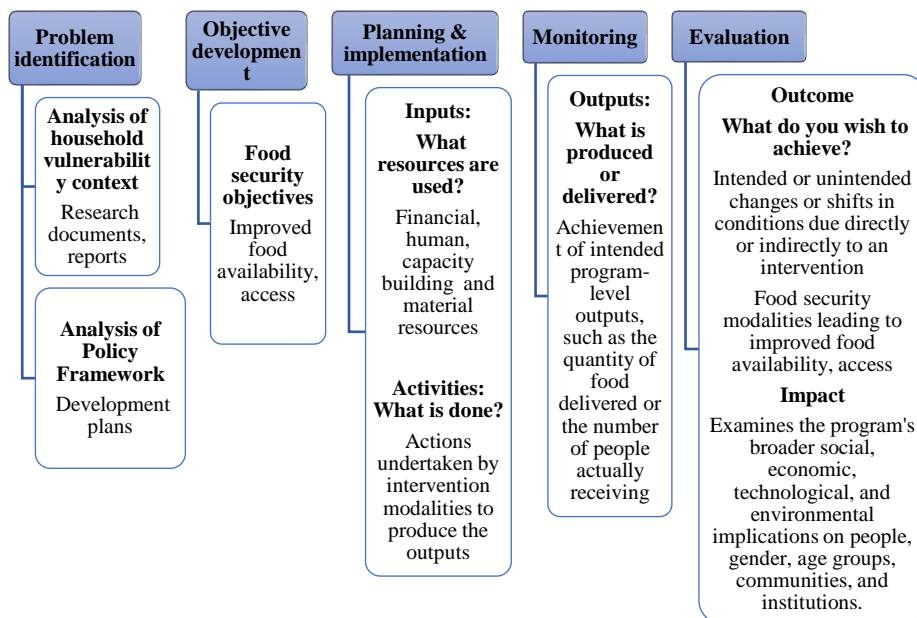


Figure 2-1 Logical framework for food security intervention

2.2 Research Methodology

The study employed a mixed-method approach, incorporating both qualitative and quantitative techniques, to validate the intervention framework and test the hypotheses. The methodology included a review of documents, interviews with project managers, quantitative surveys with households, and analysis of secondary data. The evaluation involved active engagement with beneficiaries as key stakeholders and was dedicated to gender equality, women's empowerment (GEWE), and adherence to Humanitarian Principles.

A mixed-method evaluation approach, combining both methodologies, is particularly suitable for humanitarian evaluations as they complement each other effectively. Mixed methods can address the numerous potentially confounding factors common in humanitarian interventions (Buchanan-Smith et al., 2016). These approaches are necessary because the success of development projects relies not only on resource and expertise transfer but also on the intricate social and economic dynamics within households, communities, and institutions. Surveys alone cannot capture these complexities (Bamberger et al., 2010). Therefore, multiple designs may be

needed in sequence to fully address evaluation questions. This is often achieved through mixed-method designs that alternate between quantitative and qualitative methods using various frameworks. Quantitative and qualitative methods include primary data collection, triangulated with KIIs and survey with participants' statements were employed for analysis and test the hypotheses.

2.3 Research Design

The study's design consists of two main components. Firstly, there's exploratory research which serves as the theoretical foundation and involves secondary data and qualitative research. This phase aims to illuminate the view of household food insecurity in Gaza and the reasoning behind different assistance approaches. It forms the basis for the study's objectives, hypotheses, and intervention framework detailed in chapters 1 and 2, rooted in intervention theory. Secondly, the empirical phase endeavours to validate this framework through descriptive research, employing a non-experimental approach. This means the interventions weren't directly implemented but were assessed based on past interventions (ex-post evaluation). In humanitarian settings where direct comparisons are challenging, non-experimental designs are frequently employed for evaluation. These designs don't involve comparing supported and non-assisted groups or tracking individuals' assistance over time (Buchanan-Smith et al., 2016).

Descriptive research, conducted primarily through survey methods, is categorized into cross-sectional and longitudinal design. The most prevalent form is the cross-sectional study, which involves gathering data from a population sample at a single point in time. This could be Single Cross-Sectional Design or Multiple Cross-Sectional Design. In single cross-sectional designs, data is collected once from one sample, while in multiple cross-sectional designs, data is collected once from two or more samples, often across different time periods. Longitudinal designs involve measuring the same sample of population elements repeatedly over time, maintaining consistency in the samples. Despite the higher accuracy of longitudinal data, logistical constraints often lead researchers to opt for cross-sectional surveys due to budgetary and technological limitations. In

this study, the researcher gathered two sets of data using a single cross-sectional design.

2.4 Data Collection and the sampling procedure

2.4.1 Data collection

Utilizing a single cross-sectional design, two sets of data were collected. The first data set aimed to evaluate the intervention design (Relevance) and test the first hypothesis. It predominantly consisted of qualitative information sourced from project documentation and supplemented by key informant interviews (KIIs) with project managers. This qualitative data serves to grasp the project's implementation process and gauge how the support provided is perceived by the managers. Additionally, it helps uncover insights complementing the quantitative data, aiding in understanding well-implemented aspects and identifying areas for improvement. The second dataset was employed to assess intervention effects (effectiveness, efficiency, impact) through a questionnaire and to examine the second, third, and fourth hypotheses. Primarily quantitative, this data was gathered via a questionnaire distributed to selected households benefiting from the projects under study.

In the HRP 2022, most projects (four) were designed solely with cash modalities (CFW or MPCA), three projects combined cash modalities with other modality (CFW & MPCA, In-Kind & MPCA, FV & MPCA), and one project used only an in-kind modality. To capture a range of intervention designs, projects were selected using judgmental sampling based on the following criteria:

1. Placement: The project needed to cover most of the Gaza Strip governorates.
2. Comprehensive: The project should incorporate more than one modality in its activities.
3. Evaluability: The intervention had to be evaluable, meaning all relevant documents and project managers were available to assist with data collection.

Each of the three criteria was assigned scores to evaluate the projects. Each project was ranked on a scale from 1 to 3 points, corresponding to 'low,' 'moderate,' and 'high' levels, as detailed in Table 2-1.

Table 2-1: Ranking criteria for selection of Cash modality

Scoring Criteria	Low (1)	Moderate (2)	High (3)
Placement	One Governorate	2-3 Governorates	4-5 Governorates
Comprehensive	One Modality	Two Modalities	More than two Modalities
Evaluability	No documents are available, or project managers can't be approached	Some documents are available, or the project manager can't be approached	All documents are available, and project manager can be approached

The scores for each project were summed up, and selection was based on the highest-ranking intervention. For example, if intervention Xi had a placement in one governorate, it received a score of 1; if it was comprehensive with two modalities, it scored 2; and if all documents were available and the project manager was accessible, it scored 3. Thus, intervention Xi could have a minimum total score of 3 and a maximum of 9. Ultimately, three interventions were selected for evaluation: X2, X4, and X5, with the modalities CFW & MPCA, In-Kind & MPCA, and FV & MPCA, respectively.

2.4.2 The sampling procedure for selection respondents

After selecting the interventions, the next step involved sampling participants for the main data collection. Households, rather than individuals, were used as the unit of analysis because intervention targeting, resource use, and food access are primarily managed at the household level. Consequently, information was gathered from the head of the household (or their partner). Households were randomly chosen from the list of participants for each intervention case. The sample size of 348 households was determined using the Sample Size Calculator from

Creative Research Systems, which offers this tool as a public service. The calculation was based on a 95% confidence level and a 5% confidence interval (Creative Research System, 1982).

2.5 Evaluation of intervention design and effects

The mixed-method tools suggested for implementation within the evaluation framework are delineated across its two principal components: design and effects.

2.5.1 Evaluation of intervention design: the context of intervention case studies and relevance

The primary aim of the intervention design analysis is to ascertain crucial elements such as the intervention's background, overall objectives, anticipated outcomes, tangible outputs, required inputs, involved stakeholders, targeting strategies, and causality assessment. This analysis is divided into the following categories:

✓ Analysis the context of intervention case studies

This analysis is rooted in the logical framework technique (logframe), commonly employed in intervention planning. The logframe is esteemed for its capacity to delineate the logic of the intervention, encompassing the overall objective, purpose, anticipated outcomes, activities, assumptions, objectively verifiable indicators, and sources of verification. It serves as a managerial instrument for enhancing intervention design (Santarsiero, 2023). Nonetheless, the logframe's applicability is limited in complex projects with diverse objectives. In such cases, the Theoretical Impact Model proves invaluable.

✓ Analysis of the intervention relevance

Relevance assessment aims to determine whether the intervention addresses priority needs, including the distinct needs of women, men, girls, and boys, within the protracted humanitarian context. Consequently, data will be sourced from intervention documents, complemented by KIIs conducted with project managers, as well as surveys involving

beneficiaries. Qualitative analysis and secondary document review, triangulated with KIIs, will be employed for analysis. The data for this exercise will be linked to the first hypothesis, H1: Humanitarian Interventions for food security are relevant interventions.

2.5.2 Evaluation of the intervention effects: effectiveness, efficiency, and impact

✓ Analysis of effectiveness

Effectiveness is evaluated based on how well it meets its goals and produces desired outcomes. This assessment involves three main areas: achievement of planned outputs and outcomes, factors influencing effectiveness, and indicators of effectiveness. To gather data, a survey will be conducted, supplemented by interviews with project managers and a review of project documents to evaluate results. Analysis methods include descriptive statistics, inferential statistics (t-test), and Pre-post evaluation. The Paired Sample t-test compares measurements from the same source, like before and after intervention. A p-value below 0.05 indicates statistical significance, implying meaningful results. A t-value between 2 and 3 suggests strong evidence of learning, while above 3 indicates very strong evidence. The t-value reflects the difference relative to sample variation: larger values indicate stronger evidence against the null hypothesis (Malhotra, 2019). The pre-post evaluation method allows for comparing outcomes before and after an intervention within a single group that received the intervention. This approach offers insights into the direction and extent of change over time. In terms of analysing effectiveness indicators, the study focused on concrete outcomes achieved. Specifically, it assessed the Coping Strategies Index (CSI) and Food Consumption Score (FCS), which serve as reliable proxies for household food security and are widely utilized across the project design matrices examined in the research. These indicators were employed to evaluate the intervention's effectiveness on food security within the projects under consideration. The data for analysis of this exercise will be related to the second hypothesis H2: Humanitarian Interventions for food security are effective in achieving their objectives.

✓ Analysis of intervention efficiency

Efficiency examines whether interventions utilize the most economical resources possible to achieve their intended objectives, and it underscores how humanitarian interventions with sufficient resources can significantly enhance efficiency. To gather data, surveys will be conducted with participants, supplemented by KIIs with project managers, and a review of project documents to assess the feasibility of resource utilization. The analysis will primarily employ descriptive statistics. The data collected for this exercise will be relevant to testing the third hypothesis, H3: Adequate access to resources has a significant effect on the efficiency of humanitarian intervention for food security.

✓ Analysis of intervention impacts

Impacts aim to assess the extent of substantial positive or negative effects, both intended and unintended, at higher levels. To determine the significance of various factors, the Relative Importance Index (RII) was employed, which ranks all factors based on their computed values, as demonstrated in Equation 3-1 (Noaman & Rezoqi, 2024).

$$RII = \frac{\sum w}{AN} = \frac{5n_5 + 4n_4 + 3n_3 + 2n_2 + 1n_1}{5N} \quad \text{Equation 2-1}$$

The Relative Importance Index (RII) calculation incorporates the weighting given to each factor by respondents, denoted by W, which ranges from 1 to 5. The counts of respondents for each level of weighting are represented by n1, n2, n3, n4, and n5, corresponding to strongly disagree, disagree, neutral, agree, and strongly agree, respectively. N denotes the total number of participants in the sample.

Given these considerations, the data for this analysis will involve surveying participants to explore impacts and outcomes based on beneficiaries' perspectives. This will be complemented by KIIs with project managers and a review of project documents. The analysis will primarily employ descriptive and inferential statistics. The data collected for this exercise will be relevant to testing the fourth hypothesis, H4: Humanitarian Interventions for food security have a significant impact on household food security.

3 RESULTS AND DISCUSSION

3.1 Description of the intervention

As part of its humanitarian response plan, OCHA in Gaza Strip initiated projects in January 2022 with a duration of one year. These projects, implemented across various governorates in Gaza Strip, aim to contribute to the achievement of SDGs 1 (end poverty) and SDGs2 (end hunger) in impoverished and vulnerable communities through food security interventions. Understanding the description of each intervention is crucial for analysing its design and interpreting its effects. These descriptions are based on the theoretical impact model, illustrating the logical relationships between intervention measures and their explicit impacts. Each description includes the following aspects: background, overall goal, outcomes, outputs, inputs, stakeholders, targeting, and causality assumptions. Below are the separate descriptions of each case study based on desk reviews:

1. The first project intervention (X2)

- **Background**

The project name is “Responding to the Multi-Sectoral Needs of crisis-affected population in the Gaza Strip”. The project contributes to the strategic objectives of the HRP 2022 by enhancing food security for highly vulnerable population affected by protracted crisis through improving access to diversified, sufficient and nutritious food. The context of the intervention is to provide CFW opportunities for 6 months; 939 ILS/month for laborers and 1127 ILS/month for graduates (in total 248HHs benefited from CFW interventions) and MPCA for a period of 6 months (1046 ILS/month) for 310 HHs.

- **Overall goal**

To contribute to reduced social and economic risks and vulnerabilities among crises affected populations of all gender, age, and abilities in the Gaza Strip.

- **Outcomes**

Outcome Result 1: Improved food security levels and access to livelihood opportunities for conflict affected households through Cash for Work.

Outcome Result 2: Increased ability of most vulnerable households to meet their basic needs through equitable and safe access to multi-purpose cash.

- **Outputs**

Output results (1.1): Access to cash for temporary employment provided for agricultural laborers and graduates through Cash for Work. Output result (2.1): Access to multipurpose cash provided for participants. Output result (1.2) and (2.2): Awareness-raising activities on gender equality, Gender based Violence (GBV), protection and inclusion designed and implemented on targeted HHs with a focus on HHs that include persons from at-risk groups (pregnant women, widows, PwDs, elderly, chronic patients).

- **Inputs**

The inputs were financial support and training.

- **Stakeholders**

Project staff, partner, hosts and other stakeholders such as financial service providers and markets. In addition, the implementing organization has strong and effective communication and coordination with a wide range of stakeholders such as UNRWA, Ministry of Labor (MoL) and Ministry of Social Development (MoSD) to avoid duplication between beneficiaries.

- **Targeting**

The project targeted the most vulnerable and food-insecure people. The project's focus was targeted farmers and agricultural laborers/graduates for cash for work modality and vulnerable households for MPCA modality.

2. The second project intervention (X4)

- **Background**

The project name is “Country Strategic Plan for food assistance to the poor and severely food insecure population in the Gaza Strip”. The project contributes to the strategic objectives of the HRP 2022 by meeting the basic food needs of severely vulnerable Palestinians and by improving their dietary diversity. The context of the intervention is to provide \$10.3 per person as in-kind food voucher (which includes wheat flour, vegetable oil, lentils, chickpeas, and salt) for 3114 HHs and provide MPCA to selected beneficiaries with 878 ILS for 670 HHs.

- **Overall goal**

To Support countries to achieve zero hunger.

- **Outcomes**

Outcome Result 1: Poor and severely food-insecure have improved dietary diversity.

- **Outputs**

Output results (1.1): Provision of unconditional food assistance – through MPCA and in-kind modalities – and nutrition information to poor and food-insecure households. Output Result (1.2): Targeted populations – men, women, boys and girls – receive information to raise nutrition awareness.

- **Inputs**

The inputs were financial support, food items, and training.

- **Stakeholders**

Project staff, partner, hosts and other stakeholders such as financial service providers and markets. In addition, the implementing organization has strong and effective communication and coordination with a wide range of stakeholders such as UNRWA and MoSD to avoid duplication between beneficiaries.

- **Targeting**

The project targeted poor and severely food-insecure households in the Gaza Strip. The project's focus was targeted families in rural areas for in-kind assistance and families are in urban and semi-urban areas with good internet connectivity and functioning markets for MPCA modality.

3. The third project intervention (X5)

- **Background**

The project name is “Enhance the capacity of vulnerable communities and essential service providers in the Gaza Strip to protect themselves against public health and protection threats”. The project contributes to the strategic objectives of the HRP 2022 by improving the access of vulnerable and food-insecure households to diversified food and support their basic livelihoods from further deterioration as a result of the protracted crisis, socio-economic conditions, and the impact of the COVID19 crisis. The

context of the intervention is to provide food voucher as the value disbursed to each HH is 325 NIS for two rounds for 300 HHs and to provide MPCA for four months to cover HHs basic needs (food, NFI, health, hygiene, rent subsidies, etc.) as the value disbursed to each HH is 1000 NIS for one round for 50 HHs.

- **Overall goal**

People living in the context of a protracted crisis in the Gaza Strip are better able to absorb and recover from shocks associated with the public health crisis.

- **Outcomes**

Reduced vulnerability of households to protection threats in the Gaza Strip

- **Outputs**

Output results (1.1): Vulnerable households have access to sufficient and dignified fresh food through food voucher modality. Output results (1.2): Vulnerable households receive unconditional multi-purpose cash and facilitated support to meet their immediate survival/protection need.

- **Inputs**

The inputs were financial support.

- **Stakeholders**

Project staff, partner, hosts and other stakeholders such as financial service providers and markets. In addition, the implementing organization has strong and effective communication and coordination with a wide range of stakeholders such as UNRWA and MoSD to avoid duplication between beneficiaries.

- **Targeting**

The project targeted the most vulnerable and food insecure. The project's focus was targeted for HHs with at least one protection threat for FV and MPCA modalities.

3.2 Research result

The analysis draws upon both quantitative and qualitative research outcomes. It's notable that the baseline data wasn't thoroughly

disaggregated among various respondent groups, which constrained the ability to compare it with the research findings.

3.2.1 Demographic characteristics

362 households across all modalities were surveyed in the three case studies. Throughout the 12-month period of benefiting from the HRP food security intervention, none of the households reported receiving any income or assistance from other humanitarian organizations. Tables 3-1 below present the demographic characteristics of the participating households, including information on gender, age, household headship, disabilities, chronic illnesses, and pregnancy or lactation status. Among those surveyed, 58.6% were headed by females and 41.4% by males. The significant participation of female-headed households aligns with the HRP 2022 report, which identifies this demographic as a priority group in significant need of humanitarian assistance in the Gaza Strip. The average age of respondents surveyed is 37.8 years, with an average household size of 7.2 members. This figure notably exceeds the expected average household size in Gaza, which stands at 5.6 members according to the latest data from the PCBS in 2022.

Table 3-1: Beneficiaries' demographic characteristics

#	Demographic characteristics	Total	
		NO.	%
1	Number of families	362	100%
2	Female-headed households	212	58.60%
3	Male-headed households	150	41.40%
4	Total individuals	2607	100%
5	Average family size	7.2	-
6	Total number of males	1283	49.21%
7	Total number of females	1324	50.79%
8	Boys (<=5 years of age)	182	6.98%
9	Girls (<=5 years of age)	188	7.21%
10	Children (<=5 years of age)	370	14.19%
11	Boys (6-17 years of age)	503	19.29%
12	Girls (6-17 years of age)	519	19.91%
13	Children (6-17 years of age)	1022	39.20%

#	Demographic characteristics	Total	
		NO.	%
14	Men (18-59 years of age)	562	21.56%
15	Women (18-59 years of age)	580	22.25%
16	Total (18-59 years of age)	1142	43.81%
17	Elderlies-Male (≥ 60 years of age)	36	1.38%
18	Elderlies-Female (≥ 60 years of age)	37	1.42%
19	Elderlies-Total (≥ 60 years of age)	73	2.80%
20	Total number of PWDs	247	9.47%
21	Total number of persons with chronic diseases	409	15.69%
22	Pregnant or Lactating women	73	2.80%

Source: Author's own work based on respondents' survey

3.2.2 Research Question 1: Relevance of the interventions

Assessing relevance involves determining if the project aligns with local needs and priorities. It entails tailoring humanitarian activities to meet these needs, thereby enhancing ownership, accountability, and cost-effectiveness. Therefore, this section addresses the primary research question: To what extent did food security interventions meet the immediate needs of households?

Relevance is demonstrated by the projects' alignment with the Sustainable Development Goals (SDGs), particularly in reducing poverty (SDG 1) and ending hunger (SDG 2) through the promotion of food security, improved nutrition, and sustainable agriculture. These projects also advance SDG 5 on gender equality by empowering women in productive activities and community decision-making. Consistent with baseline findings, the projects remain highly relevant to the needs of the Palestinian people, contributing to the second and third strategic objectives of the HRP 2022. Strategic Objective 2 (SO2) aims to meet the basic needs of vulnerable Palestinians living under occupation by providing quality basic services and improving access to resources, in line with the rights of protected persons under International Humanitarian Law (IHL). Strategic Outcome 3 (SO3) focuses on enhancing the ability of vulnerable Palestinians to cope with the ongoing crisis and environmental threats, while addressing the root causes of threats and shocks. Humanitarian interventions are often challenged by violence, conflict, poor security, damaged infrastructure,

restricted access, and inadequate communications, which can hinder community and information access.

The review of project documents revealed that the intervention projects effectively contributed to the Food Security Sector's goals and the National Policy Agenda 2017-2022. These goals include alleviating poverty, enhancing social protection, and meeting basic community needs to ensure that vulnerable Palestinian households have their essential food needs met. This was achieved by helping households improve their food security and strengthening national institutions to implement food security strategies and social security programs, targeting food-insecure and vulnerable Palestinians accurately. The food security interventions align closely with the priorities set by the Food cluster. For the 2022 HRP programming period, the food cluster emphasized four main priorities to address food and nutrition security challenges and promote sustainable agriculture: 1) enhancing the resilience of the most vulnerable to food crises to build sustainable and resilient communities; 2) promoting specific nutrition outcomes to ensure health and well-being for current and future generations; 3) increasing responsible investments in agriculture and food systems to drive inclusive economic growth and job creation, especially for the youth; and 4) encouraging innovations in sustainable agri-food systems to produce more and better food in the face of climate change, while preserving natural resources and biodiversity.

During key informant interviews, project managers explained the relevance of their projects based on several key considerations:

1. **Contextual Understanding:** Projects were tailored to the specific needs and challenges of the communities or regions they served. During the design phase, attention was given to understanding local food systems, cultural practices, and socio-economic dynamics.
2. **Sustainability:** Projects aimed to promote long-term food security by addressing underlying issues such as poverty, lack of access to resources, and climate-related challenges.
3. **Accessibility:** Projects ensured accessibility for the target population, particularly vulnerable groups such as women, children, the elderly, and people with disabilities.

4. **Empowerment:** Projects empowered individuals and communities to participate in decision-making processes related to food security. This was achieved through capacity-building training to enhance local food production and distribution systems.
5. **Resilience:** Projects aimed to strengthen beneficiaries' resilience against future food security threats, including natural disasters, economic shocks, and conflict.
6. **Collaboration:** Projects were implemented in collaboration with relevant stakeholders, including government agencies, NGOs, community-based organizations, and the private sector.

All project interventions were part of and supported the 2022 Humanitarian Response Plan (HRP), contributing to its Strategic Objectives (SO) 2 and 3, and the Food Security Sector (FSS) objectives 1 and 2. These priorities were also highlighted in the Country Response Plan. The project modalities adhered to the related humanitarian plan and standards, aligning with the strategic objectives of the HRP. The projects were highly relevant to the population as they considered the socio-economic context in the Gaza Strip. They identified factors undermining household livelihoods and food security, proposing long-term solutions to address these issues. Overall, the researcher considers that the projects were well framed within the local context, effectively addressing the population's general priorities. Relevance rating: The projects' interventions were consistent and valid, with no observed shortcomings in relevance during the evaluation. Consequently, the relevance of the projects is rated as 'Highly Satisfactory.' The interventions were logically structured and well-linked with the desired results, from objectives through to specific activities. This coherence led to the validation of the first hypothesis, H1: Humanitarian Interventions for food security are relevant interventions.

3.2.3 Research Question 2: Effectiveness of the interventions

Effectiveness is typically described as the degree to which assistance activity meets its goals. Additionally, when evaluating a humanitarian intervention, it is important to consider how well it aligns with established humanitarian principles. Consequently, this section addresses the second research question: To what extent did food security interventions achieve

their objectives including the timely delivery of relief assistance? The following key factors, identified from the evaluation findings, contributed to the project's effectiveness.

3.2.3.1 Effectiveness in achieving the planned outputs and outcomes.

The assessment of the projects' performance against the targets based on outputs revealed satisfactory results, with end-of-project targets being met for both output and outcome targets.

1. The first project intervention (X2)

➤ Outcome Result 1: Improved food security levels and access to livelihood opportunities for conflict affected households through Cash for Work.

The documents review in endline revealed that all respondents reported improved food accessibility in both quantity and quality, noting that the project enabled them to regularly consume nutritious and tasty food items over an extended period. Many participants mentioned that the project allowed them to access foods that were previously unavailable to them, such as fresh fruits like figs and mangos, and chicken meat. Throughout the project, the food security status of the targeted vulnerable households improved by 61 points. A total of 248 targeted households (comprising 2068 individuals: 612 women, 613 men, 395 girls, 448 boys, including 231 people with disabilities) saw increased access to cash through cash-for-work opportunities, particularly in the agriculture sector. Two laborers secured sustainable job opportunities with one of the selected private sector hosting organizations. Despite not reaching the planned target number of households (291) due to budget losses from currency exchange, the project met the expected number of individual targets.

➤ Output results (1.1): Access to cash for temporary employment provided for agricultural laborers and graduates through Cash for Work.

A total of 248 participants (35 agronomists and 213 laborers; 127 male, 86 female) accessed cash through short-term opportunities for five months in

17 hosting organizations working in the agriculture sector across Gaza governorates. Although the project did not meet the planned target of 291 households, achieving 85.2% of the target, this deviation was due to budget losses from currency exchange and prioritizing vulnerability over family size in the selection process. Consequently, fewer households were selected, but they had more family members than anticipated. Despite this, the project met the expected number of individual targets and thus achieved its intended result.

➤ **Output results (1.2): Awareness-raising activities on gender equality, GBV, protection and inclusion designed and implemented on targeted HHs with a focus on HHs that include persons from at-risk groups (pregnant women, widows, PwDs, elderly, chronic patients).**

- Awareness-Raising Activities at the Household Level: Activities occurred in participant targeting phase, verification and targeting visits.
- Orientation and Awareness Sessions: Targeted participants received six orientation sessions before starting work. These sessions reintroduced the scope of the intervention, detailed the monthly assistance amount and mechanism, and explained the use of the delivery system.
- Orientation and Awareness at Hosting Organizations Level: Selected hosting organizations received one orientation session where they were briefed on the details of the intervention, participants' rights and entitlements, and the expectations from hosts regarding supervision and capacity building for participants.

➤ **Outcome Result 2: Increased ability of most vulnerable HHs to meet their basic needs through equitable and safe access to multi-purpose cash.**

The project successfully provided adapted assistance to 310 vulnerable households (comprising 2367 individuals: 664 men, 736 women, 487 girls, 480 boys, and 448 people with disabilities). A significant 99% of targeted households reported being able to meet their basic needs during the period the Multi-Purpose Cash Assistance (MPCA) was provided, and 95% reported accessing the assistance in a safe, participatory, and accountable

manner. Endline results indicated that health was the top priority for the targeted households, with 99% of participants reporting access to health services from qualified providers. Additionally, 39% of participants reported living in safe and dignified shelters, which is an improvement from the baseline of 0%, though it remains a significant need that MPCA did not substantially address. Thus, the project achieved its intended result.

➤ **Output result (2.1): Access to multipurpose cash provided for participants.**

Despite budget reallocation and currency exchange losses, the project was able to deliver adapted Multi-Purpose Cash Assistance (MPCA) to 112 households for 7 months, 153 households for 6 months, and 45 households for 3 months. In total, 310 vulnerable households received MPCA. Therefore, the project successfully achieved this result.

➤ **Output result (2.2): Awareness-raising activities on gender equality, GBV, protection and inclusion designed and implemented on targeted HHs with a focus on HHs that include persons from at-risk groups (pregnant women, widows, PwDs, elderly, chronic patients).**

Consultation and Targeting Phase: During household field visits, the project team ensured that all household members, including children, understood the need for a participatory approach in deciding household disbursement priorities. They also emphasized the importance of using the adapted assistance to meet the special needs of at-risk individuals. During these visits, the team carefully assessed the social atmosphere and gender dynamics within the households. They shared sensitive messages on gender equality, inclusion, and protection with all household members, including the elderly and people with disabilities, to raise awareness and encourage participation. Orientation and Awareness Sessions: Targeted participants received five orientation sessions before the first MPCA transfer. These sessions reintroduced the details of the assistance, the adapted amount, and the delivery mechanism. As with the cash-for-work program, it was the first time using the e-wallet delivery mechanism.

2. The second project intervention (X4)

➤ Outcome Result 1: Poor and severely food-insecure have improved dietary diversity.

The recent data reviewed, which includes logframes, Annual Country Reports, beneficiary datasheets, and KII and Focus Group Discussions (FGDs), revealed an improvement in dietary diversity among the poor and severely food-insecure demographics. This outcome represents a significant step forward in addressing nutritional deficiencies and enhancing food security among vulnerable beneficiaries. Through coordinated efforts in policy implementation, community initiatives, and targeted interventions, individuals facing substantial economic hardships now have access to a wider variety of nutrient-rich foods, reducing the risks associated with malnutrition. This positive change highlights the effectiveness of comprehensive strategies aimed at tackling food insecurity, emphasizing the importance of equitable access to diverse and nutritious food options for all individuals, regardless of their socio-economic status. Therefore, the project successfully achieved this outcome.

➤ Output results (1.1): Poor and severely food-insecure receive diverse and nutritious food to improve their dietary diversity.

During the project, 670 households were provided with unconditional food assistance, targeting poor and severely food-insecure households in the Gaza Strip. Additionally, 3114 households received in-kind assistance. Following a recommendation from the previous year's Strategic Review of Food and Nutrition Security in the State of Palestine, there was a gradual transition from in-kind food assistance to Multi-Purpose Cash Assistance (MPCA). This transition was aimed at economically empowering both men and women, granting them autonomy in deciding how to utilize the assistance. As part of the project's design, the implementing organization aimed to introduce immediate cash transfers for 65% of beneficiaries, while decreasing the proportion receiving in-kind assistance to 35%. To ensure the integrity of transfers to the intended beneficiaries, the organization contracted shops capable of providing quality and diverse foods at market prices, while also implementing additional layers of controls. Whenever possible, shops owned by women were included to promote women's

economic empowerment. Therefore, the project successfully achieved this result by transitioning a significant portion of beneficiaries to MPCA, thereby empowering them economically and granting greater autonomy in their decision-making regarding the use of assistance.

➤ **Output Result (1.2): Targeted populations – men, women, boys and girls – receive information to raise nutrition awareness.**

In addition to providing unconditional food assistance, tailored nutrition-sensitive awareness activities were implemented to engage diverse groups, including men, women, girls, and boys, with the aim of raising awareness about nutrition. These activities included delivering nutrition messages to improve awareness among beneficiaries and enhance dietary diversity at the household level. By empowering women, men, girls, and boys to make informed decisions that improve food security and nutrition, these efforts contributed to achieving the Gender Policy objectives. In response to recommendations from the strategic review, the implementing organization utilized available nutrition data to design and implement interventions based on the nutritional needs, rather than just caloric requirements, of the beneficiary population. This involved developing and delivering basic awareness-raising on healthy eating habits and nutrition. Throughout these activities, the implementing organization prioritized the safety of beneficiaries and emphasized protection and accountability towards affected populations. All women and men beneficiaries retained access to beneficiary feedback mechanisms through the project's channels. This commitment to accountability ensured that the input and feedback from affected populations were considered in program design, reinforcing accountability to the communities being served.

3. The third project intervention (X5)

➤ **Outcome Result 1: Reduced vulnerability of households to protection threats in the Gaza Strip**

The reduced vulnerability of households to protection threats in the Gaza Strip represents a significant advancement in enhancing the safety and security of its residents. This outcome reflects a collaborative effort to address longstanding challenges and mitigate the risks posed by conflict

and instability. Through strategic measures and joint interventions, households are now better prepared to withstand and respond to various protection threats, fostering resilience and stability within the community. The achievement of this outcome underscores the importance of prioritizing protection concerns and implementing comprehensive strategies to safeguard the well-being of individuals and families in conflict-affected areas like the Gaza Strip. Specifically, the project facilitated increased access to basic social protection needs and services for 350 households (comprising 2,450 individuals) in the Gaza Strip. Furthermore, 100% of targeted households demonstrated an improved food consumption score (FCS), indicating enhanced access to nutritious food and improved food security. Therefore, the project successfully achieved this result, contributing to the overall well-being and resilience of the community.

➤ **Output results (1.1): Vulnerable households have access to sufficient and dignified fresh food through food voucher modality.**

The provision of sufficient and dignified fresh food to vulnerable households through the food voucher modality marks a significant advancement in addressing food insecurity with dignity and respect. This outcome reflects a targeted approach aimed at ensuring that those most in need have access to nutritious food options, empowering them to maintain their health and well-being. By utilizing food vouchers, vulnerable households can make choices that align with their dietary preferences and cultural needs, fostering a sense of autonomy and empowerment. This achievement highlights the effectiveness of innovative strategies in enhancing food access and promoting human dignity, ultimately contributing to more resilient and nourished communities. Specifically, 300 households received quarterly fresh food vouchers and information on access to referral services through the project. Through the endline evaluation, it was found that the average Food Consumption Score (FCS) of the target population exceeded the baseline, indicating improved food security. Moreover, 95% of men and women who were supported with food vouchers expressed satisfaction with the safe and dignified access to food e-voucher services. The remaining 5% with lower satisfaction levels cited

difficulties in transportation to reach the shops. Nonetheless, overall, the project successfully achieved this result by providing dignified access to fresh food options, thereby enhancing food security and promoting the well-being of vulnerable households.

➤ **Output results (1.2): Vulnerable households receive unconditional multi-purpose cash and facilitated support to meet their immediate survival/protection need.**

The provision of unconditional multi-purpose cash and facilitated support to vulnerable households represents a crucial step in ensuring their well-being and resilience. By offering cash assistance without restrictive conditions, these households gain the flexibility to address their most pressing concerns, whether it involves securing shelter, accessing healthcare, or obtaining food and other essentials. Additionally, the facilitated support provided alongside the cash assistance offers guidance and resources to effectively navigate challenges, empowering vulnerable individuals and families to overcome adversity with dignity and agency. This approach not only addresses immediate needs but also fosters long-term stability and self-sufficiency within communities facing hardship. Specifically, 50 households (comprising 334 individuals, including 173 females and 161 males) directly benefited from unconditional multi-purpose cash and facilitated support to access protective services. Through the endline evaluation, it was observed that the average Food Consumption Score (FCS) of the target population exceeded the baseline, indicating improved food security. Furthermore, 98% of men and women supported by the intervention expressed satisfaction with the safety, quality, and accessibility of the assistance provided. This high level of satisfaction underscores the effectiveness of the project in meeting the needs of vulnerable households and ensuring their well-being. Therefore, the project successfully achieved this result by providing essential support and resources to empower vulnerable individuals and families, ultimately promoting their resilience and dignity.

3.2.3.2 Effectiveness Factors

Effectiveness factors generally denote the fundamental components or variables that play a role in the project's success. The following points elucidate the typical effectiveness factors observed throughout the project's implementation.

A. Flexibility and responsive

Several pieces of evidence highlighted the importance of flexibility in addressing identified needs. This flexibility was demonstrated through prompt responses to beneficiaries' changing needs by relocating distribution points to more preferred locations and adjusting the design and locations of community assets based on requests from the community committee and in consultation with local authorities. These adjustments were confirmed by reports generated by the project and independent Key Informant Interviews (KIIs) with project managers. Analysis of the collected data revealed exceptionally high levels of satisfaction, particularly regarding the ease of project registration (93.2%), access to assistance support (94.1%), and the helpfulness of the team when needed (98.6%). There were no significant differences in satisfaction rates when disaggregated by gender or location.

B. Clear well Communicated Complaint and Feedback Mechanism (CFM)

As per feedback gathered from interviewed beneficiaries, 100% indicated their awareness of and satisfaction with the CFMs, which were communicated to them from the project's inception. None of the respondents reported encountering obstacles or feeling inhibited from filing complaints throughout the project duration. However, only 11.6% of surveyed beneficiaries reported utilizing the CFM, with 85.4% rating the effectiveness of the response to their concerns. While 93.6% expressed overall satisfaction with the implemented CFM, 4.4% reported being somewhat satisfied. Dissatisfaction primarily stemmed from delays in responses to complaints submitted via the 'suggestion box'. These findings were confirmed during KIIs with project managers.

C. Forming and engaging the Community Committees

All projects embraced a participatory approach, ensuring the active involvement of vulnerable groups throughout planning and implementation processes. Various segments of society were included in decision-making processes. Each project established community engagement committees in targeted areas to facilitate effective and accountable participation of the community in implementation and monitoring. Projects adopted a NEXUS approach, linking humanitarian, development, community resilience, and stabilization efforts. For instance, in Project X5, three committees comprising 30 members (including 14 females) were formed. Committee members were selected based on their interest and social commitment, ensuring representation from different community groups. Terms of reference outlining roles and responsibilities were developed in consultation with committee members. Community members were empowered to participate in designing and assessing needs throughout the project lifecycle, with interventions tailored to address their needs, cultural norms, and socioeconomic status. Partnership with local committees enabled affected individuals to design community initiatives and participate in implementation and supervision processes. In Project X2, intervention modalities were carefully selected based on the Humanitarian Plan 2022, recommendations from the Cash Working Group (CWG), and community preference analysis conducted by the organization.

D. Addressing the Cross-cutting issues

Tackling cross-cutting issues in humanitarian projects is crucial for providing thorough and efficient aid to vulnerable groups. These issues overlap with different areas of humanitarian work and greatly influence its results. By incorporating strategies to address these issues into project planning, implementation, and evaluation, humanitarian organizations can improve the impact of their efforts. This method encourages a comprehensive understanding of the diverse needs and vulnerabilities of affected communities, leading to more resilient and fair outcomes in humanitarian responses. Despite challenging circumstances, the projects have endeavoured to address key cross-cutting issues as follows:

a. Vulnerabilities coverage

Vulnerability is more widespread than many realize, characterized by four key factors: poor health, experiencing negative life events, low financial resilience, and low capability. These factors were considered in targeting poor and food-insecure households and included in the data collection tool used for this purpose. Given one of the worst humanitarian crises globally, as reported by OCHA, addressing all vulnerabilities in the area seems impossible. However, organizations have attempted to address a wide range of vulnerabilities through predetermined criteria set in consultation with community committees and local authorities. This ensured that households with vulnerable individuals were prioritized for assistance. By focusing on vulnerability coverage, humanitarian projects aim to reach those most in need, including marginalized and often overlooked groups.

b. Protection

The implementing organizations consider safeguarding integral to their culture, values, and programs. All staff and participants were introduced to the organizations' policies on safeguarding, child protection, Prevention of Sexual Exploitation, Abuse, and Harassment (PSEAH), gender issues, and whistleblowing, along with complaints and feedback mechanisms. Protection measures were integrated into all activities and monitoring tools. The organizations continuously developed internal guidance and tools to help colleagues and partners embed protection throughout project delivery. This included preventing and minimizing unintended negative effects of food assistance activities that could compromise safety and security. For example, different assistance modalities were tailored to meet the specific needs of vulnerable households without increasing household tensions, domestic violence, or physical and psychosocial risks. Efforts were made to ensure that assistance and services were accessible, eliminating barriers, preventing discrimination, and accommodating individuals' difficulties in accessing aid. Multiple feedback mechanisms were widely disseminated to allow affected populations to voice concerns and complaints, support the development of self-protection capacities among beneficiaries and non-beneficiaries, help individuals claim their rights, and empower marginalized groups and individuals.

c. Gender Equality

Project managers discussed a gender mainstreaming policy that was implemented to ensure gender equality and mainstreaming throughout all stages of the projects. Women were involved in different phases of all projects, a point highlighted by participants during the survey. A review of CFMs showed no reported cases of discrimination. In the study sample, the support modalities addressed 362 households, encompassing 2,607 individuals (1,283 males and 1,324 females), with beneficiaries almost equally divided by gender. Additionally, there was no significant gap between male-headed and female-headed households, with percentages at 41.4% and 58.6%, respectively. The project specifically targeted female-headed households to ensure their inclusion in the registration process.

d. Do No Harm

To minimize any unintended negative effects from the projects, the project managers reported several strategies. These included holding coordination meetings with authorities at both central and local levels from the outset, involving the community through community committees, and maintaining continuous and systematic monitoring and consultation. These efforts minimized deviations from project objectives, increased community satisfaction and ownership, and consequently reduced the chances of conflict. Almost no serious conflicts were reported during the project's duration, as confirmed by the evaluation and supported by documents reviewed during desk research and KIIs with project managers.

E. Satisfaction of the beneficiaries

The projects were adaptive and flexible, responding to learning and feedback from their MEAL systems.

1. Satisfaction with the value of the assistance

Respondents reported high levels of satisfaction with the value of the assistance received. Overall, 91.70% of beneficiaries reported complete satisfaction with the value of the assistance, while 8.30% reported being somewhat satisfied as they indicated the assistance was not enough to

purchase sufficient or nutritious food, especially in areas with high food prices or inflation.

2. Satisfaction with the coverage period

In social welfare programs and humanitarian assistance initiatives, the satisfaction of beneficiaries with the coverage period is a crucial determinant of their overall experience and well-being. The duration and continuity of assistance significantly influence beneficiaries' ability to stabilize their circumstances, recover from crises, and build sustainable pathways toward progress. Regarding the project coverage period, 89.5% of respondents agreed that it was too short, suggesting that a minimum coverage of 14-18 months would be more appropriate. When asked if they preferred an increase in the monthly value of the assistance or an extended coverage period, 95% of participants chose the latter.

3. Satisfaction with reaching the distribution points

Distribution points serve as the crucial link between assistance providers and recipients, enabling the delivery of essential goods and services to communities in need. According to feedback, 96.4% of participants did not encounter any difficulties, obstacles, or risks in reaching the distribution points. Only 3.6% reported transportation difficulties, resorting to walking partway or seeking help from friends to reach the distribution location.

4. Satisfaction of helpfulness of project team members

The overall experience and outcomes for beneficiaries are significantly influenced by how they perceive the responsiveness and competence of the project team members. Satisfaction with the project team's helpfulness indicates the quality of interpersonal interactions and support given. It is crucial to understand and address the factors that contribute to beneficiary satisfaction in these areas to build trust, enhance accountability, and improve the delivery of assistance. Approximately 95% of the consulted beneficiaries expressed satisfaction with the ease of registration, access to support, and the helpfulness of the project team members.

3.2.3.3 Effectiveness Indicators

In this section, the researcher examines the impact of food security interventions on the food security status of the targeted group from a quantitative perspective. Using a pre-post evaluation method, the changes in food security indicators were assessed, defined by measuring outcomes before and after the intervention for the same group. This method helps determine the direction and magnitude of changes over time, revealing shifts in food availability and access within intervention communities. Two indicators, the Food Consumption Score (FCS) and the Coping Strategies Index (CSI), commonly used in project assessments, were utilized to analyse the intervention's effectiveness on household food security.

A. The result of Coping Strategies Index (CSI)

The Coping Strategies Index (CSI) is a widely used tool in food security and nutrition assessments to gauge how households manage during times of stress or food insecurity. The CSI typically includes questions or indicators related to various coping strategies (Daniel Maxwell & Caldwell, 2008). Overall, all coping strategies declined by the project's end. However, three months post-project, these strategies increased to 5, 3, and 2 days per week, respectively, though still below baseline levels. The findings indicate that while food security interventions were highly effective during the project, they were not sufficient to sustain the avoidance of negative coping strategies after the support ended.

Table 3-2 illustrate the reduced Coping Strategies Index (rCSI). The endline assessment, conducted immediately after the project ended, showed significant improvement, while data collected three months post-project indicated some regression. At the endline, 90.40% of female-headed households had a reduced CSI score, averaging 47.5 points. Three months later, 76.70% of these households had a reduced CSI score, with an average of 60.14 points. For male-headed households, 83.80% had a reduced CSI score at the endline, with an average of 43.22 points. Three months post-project, 72.10% of male-headed households had a reduced CSI score, averaging 57.24 points. These results align with the State of Palestine Country Strategic Plan (2018-2022), which notes that food insecurity is higher among female-headed households. Women are at

greater risk of malnutrition due to their reproductive roles, and household resilience is weakened by high unemployment among women, their limited access to resources, and the impact of protection violations on women's economic activities such as herding and harvesting.

Gender analysis reveals that both female-headed and male-headed households exhibit similar trends, showing no significant differences between the genders. Overall, at the endline, 87.10% of households had a reduced CSI score, averaging 45.36 points. In the follow-up research conducted three months later, 74.40% of households had a reduced CSI score, with an average of 58.69 points. The baseline CSI was high at 83.35 points, improved significantly to 45.36 at the endline, but worsened to 58.69 three months post-project compared to the endline. The significant increase in CSI after three months without continued support indicated a reversion to negative coping mechanisms once the project ended. These findings suggest that while the food security interventions were highly effective during the project, they were not sufficient to sustain the same level of need fulfilment after the support concluded.

Table 3-2: Reduced Coping Strategies Index in assessments

Sex of HHs	Baseline	Endline			Research data collection		
	Average CSI score	% of respondents	Average CSI score	Average of change	% of respondents	Average CSI score	Average of change
Female headed HHs	84.33	90.40%	47.5	-36.83	76.70%	60.14	-24.19
Male headed HHs	82.37	83.80%	43.22	-39.15	72.10%	57.24	-25.13

The decrease in the CSI showed statistical significance compared to the baseline average CSI of the targeted households. With a P-value below 0.05, the significance at the 95% confidence level allows us to reject the null hypothesis, the negative t-value shows a reversal in the directionality of the effect being studied, it has no impact on the significance of the difference between groups of data as shown in Table 3-3.

Table 3-3: t-test result for rCSI in assessments

Description	Baseline	PDM	Baseline	Endline	Baseline	Research data collection
CSI scoring	83.35	62.76	89.63	45.36	89.63	58.69
t-test between baseline and other assessment	Statistically significant (t=-13.6 and p= 0.000) positive change in the CSI between baseline and PDM		Statistically significant (t=-15.3 and p= 0.000) positive change in the CSI between baseline and endline		Statistically significant (t=-14.7 and p= 0.000) positive change in the CSI between baseline and research data collection	

B. The result of Food Consumption Score (FCS)

In the context of food security evaluations, the Food Consumption Score (FCS) emerges as a crucial instrument for assessing the sufficiency and variety of food intake within households. Developed by the FAO, the FCS offers a standardized approach to assessing the quality and quantity of food consumed by individuals or households over a specified period. By examining responses to the FCS, researchers can gain insights into food security dynamics, inform targeted interventions, and facilitate the monitoring and evaluation of efforts aimed at enhancing food security and nutritional outcomes. Analysis of this indicator at the endline stage revealed that all female-headed households reported an increased FCS, with an average score of 73.4 points (a 31.5% increase from the baseline score), while all male-headed households also reported an increased FCS, with an average score of 72.8 points (a 30.1% increase from the baseline score). No significant differences were observed between genders. Overall, the average scores indicated a substantial improvement from baseline to endline, although there was a decline in scores evident in the research results three months after the conclusion of the last assistance program. The average FCS prior to the project was 50 points, rising to 70.4 points during the project's duration, and reaching 73.1 points at the end. This signifies a significant enhancement in households' food consumption. However, despite these improvements during the project, the FCS in the research data collection decreased to 56.06 compared to the endline score, though it still exceeded the baseline score, as indicated in Table (3-4). This suggests that the food security interventions were highly effective during the project

period but insufficient to sustainably support vulnerable households at the same levels once the assistance ended. They proved exceptionally successful while they were ongoing.

Table 3-4: Food Consumption Score in assessments

Indicator	Baseline	PDM	Endline	Research
FCS	50	70.4	73.1	56.06

Measurement of thresholds and calculation of the FCS: The FCS results have been presented and compared using threshold measurements, aligning with the national average in the Gaza Strip regarding poor, borderline, and acceptable levels. Respondents with an FCS equal to or greater than 61 are categorized as "acceptable," while those with an FCS below 45 are labelled as "poor"; otherwise, they are deemed "borderline." The increase in the FCS demonstrated statistical significance when contrasted with the average FCS of the targeted households at baseline, with a P-value below 0.05, indicating significance at the 95% confidence level, as depicted in Table 3-5.

Table 3-5: t-test result for FCS in assessments

Description	Baseline	PDM	Baseline	Endline	Baseline	Research data collection
FCS	50	70.4	50	73.1	50	56.06
One-way t-test between baseline and other assessment	Statistically significant (t=9.9 and p= 0.000) positive change in the FCS between baseline and PDM		Statistically significant (t=12.03 and p= 0.000) positive change in the FCS between baseline and endline		Statistically significant (t=10.6 and p= 0.000) positive change in the FCS between baseline and research data collection	

As depicted in Figures 3-1, all households exhibited significant enhancements in food security compared to the baseline, with increases of 0.197 standard deviations in the FCS. However, according to the research data collection, after three months post-project, the short-term improvements in food security gains disappeared, indicating that the interventions' impact on food security was temporary and linked to its

duration. This suggests that the interventions' effects on food security were only sustained while it was actively running. This finding aligns with insights gathered during KII with project managers, who suggested that for targeted beneficiaries and their households lacking significant income sources to ensure food security, these improvements deteriorated notably within 3-4 months since the last distribution. While some households managed to maintain their CSI and FCS scores, they typically possessed additional household resources to utilize, had members generating income from labour, or had supplementary support beyond the assistance to cover the entirety of their household's basic needs. As anticipated, when food security improves for vulnerable households, their CSI decreases, indicating a reduction in their reliance on negative coping mechanisms. This observation was supported by findings from the quantitative study, where respondents indicated reverting to their challenging circumstances before receiving support, as they lacked viable alternatives.

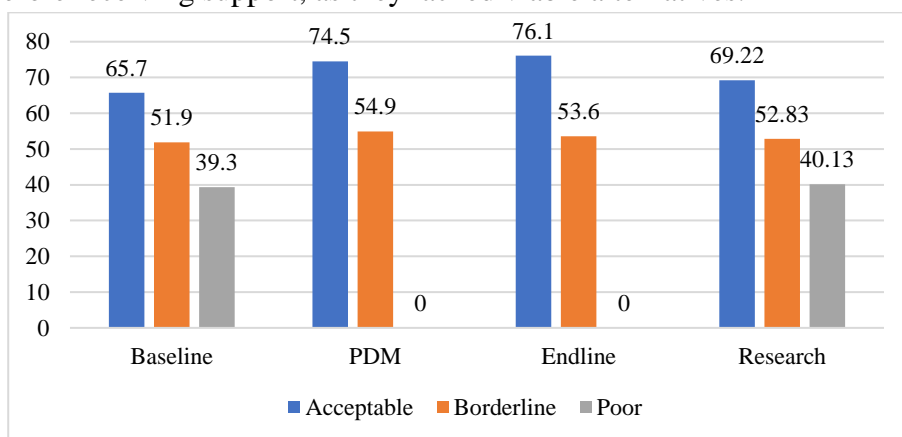


Figure 3-1 Average FCS in assessments

When disaggregated the FCS category data by household governorate, size, and age, it reveals a balanced distribution of percentages across different groups. However, when disaggregated the data by the gender of the household head, it becomes apparent that households headed by males have the highest percentage (86.20%) of acceptable food consumption levels, followed by those headed by females (84.25%). This suggests that male-headed households, likely with fewer dependents, had greater opportunities to earn income beyond assistance and could therefore allocate more

resources to food consumption. In contrast, female-headed households faced more pressure to limit food variety and direct resources to other urgent needs.

Before the intervention, Figure 3-2 illustrates that all indicators were poor. However, during the intervention, there was significant improvement across all indicators. Subsequently, after three months since the last assistance, there was a dramatic drop in all indicators. Nevertheless, the research findings displayed better levels of indicators compared to the results before the projects.

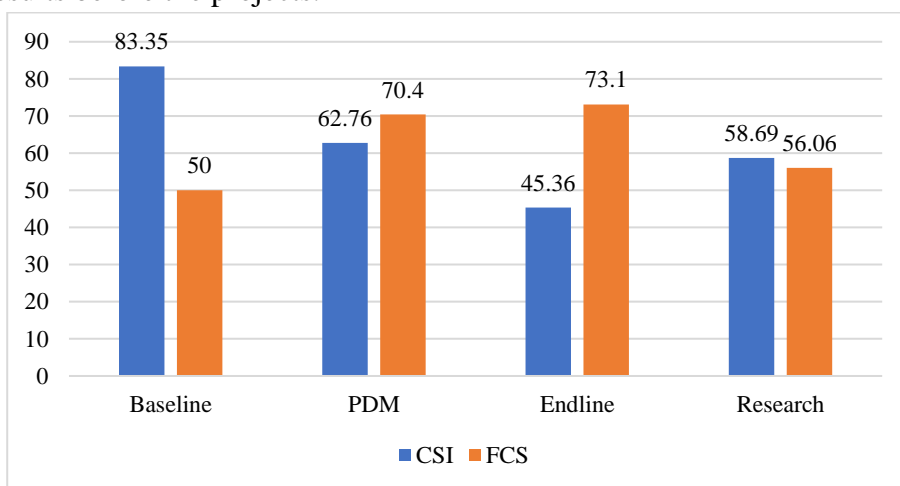


Figure 3-2 Indicators average decline after 3 months of the last assistance

Figure 3-3 illustrates the relationship between the increase in FCS and the decline in CSI simultaneously. In situations where households may struggle to obtain enough cash to meet their food needs, and with no other income sources or external support available, households appear to resort to higher coping strategies to afford better food consumption. Consequently, as the FCS indicator improves, the CSI indicator tends to decline, and vice versa. Beneficiaries worked to maintain their pre-assistance food consumption habits, which may account for why the FCS average remained above baseline. However, families lacking alternative income sources seemed to resort to employing higher coping strategies to cover essential expenses.

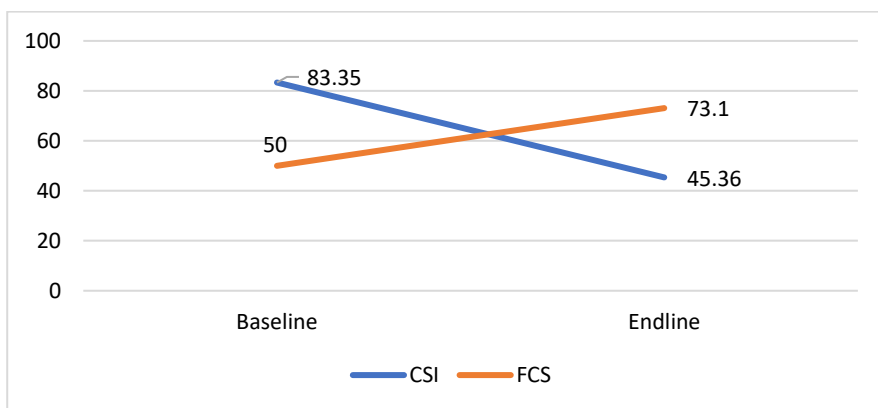


Figure 3-3 Relationship between CSI and FCS indicators

Effectiveness rating: Driven by the aim to derive insights and evidence, this evaluation appraised the project's effectiveness holistically, gauging the extent to which it accomplished its outputs, outcomes, and objectives. With full attainment of all objectives and the majority of outcome and output targets achieved, the evaluation deemed the project's effectiveness as "Satisfactory" This validation supported the second hypothesis, H2: Humanitarian Interventions for food security are effective in achieving their objectives.

3.2.4 Research Question 3: Efficiency of the interventions

Efficiency evaluates how effectively inputs like materials, labor, and capital are transformed into outputs without wastage. this section addresses the third research question: To what extent did adequate access to resources have a significant effect on food security's intervention efficiency? The following key factors, drawn from the evaluation findings, contributed to the project's efficiency.

A. Partnership: The Projects activities were conducted in partnership with other stakeholders

1. The implementing organizations collaborated with the Ministry of Social Development to deliver assistance, engage in strategic planning, and enhance capacity.

2. Implementing organizations-maintained partnerships with international and local NGOs for food intervention strategies and nutrition awareness projects.
3. All implementing organizations fostered robust partnerships with a diverse range of stakeholders, including the government, donors, United Nations entities, international financial institutions, civil society, and the private sector.
4. In partnership with the with local committees, affected individuals contributed to designing community initiatives and were involved in the implementation and supervision processes. This participatory approach empowered communities and ensured alignment with local needs and priorities.
5. The project utilized a partnership with banks as the delivery mechanism for its modalities. However, opening bank accounts for target individuals proved challenging, as banks were reluctant due to the short-term nature of transactions expected to occur during the project period.

B. Making use of the exchange rate increase

In the dynamic and unpredictable environment typical of humanitarian contexts, various factors, including fluctuations in exchange rates, can significantly impact efficiency. During the implementation of the projects, there were notable fluctuations in the USD exchange rate, resulting in both challenges and opportunities. While this led to budget losses in one project, it increased the total sum in USD for two projects, allowing for extended project coverage. Project managers demonstrated flexibility and adaptability by leveraging these changes to reach more households than initially planned. Despite the challenges posed by exchange rate fluctuations, the projects remained flexible and adaptable, making multiple adjustments to cope with the evolving circumstances during the delivery period. All project managers affirmed that costs (such as transfer fees and cost per beneficiary) and operations (including logistics, program deliveries, and monitoring and evaluation arrangements) remained aligned with the project design.

C. Time efficiency

Regarding time efficiency, beneficiaries consistently reported that assistance distribution times for all project activities were typically regular, and distribution points were conveniently accessible and nearby for most of them. This resulted in a high level of satisfaction among beneficiaries, with an overall average of 95.1% of survey respondents expressing appreciation for the regularity of timing, and 96.9% expressing satisfaction with the assistance process procedures, as depicted in Figure 3-4. Importantly, there were no significant differences observed based on the gender of the head of the households.

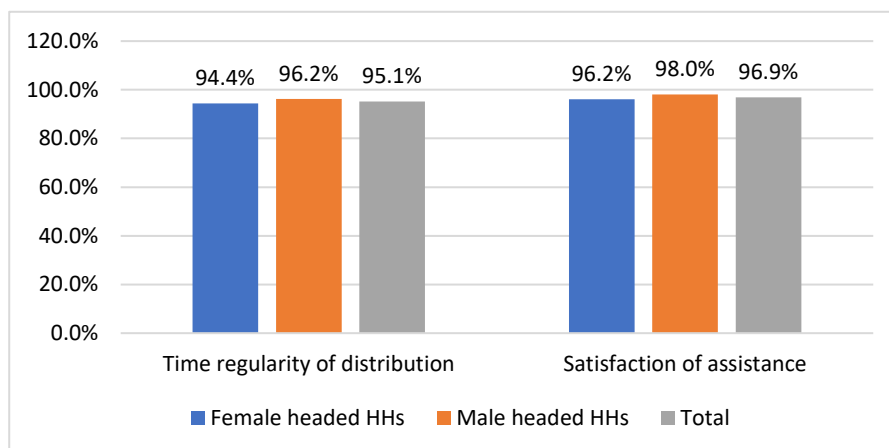


Figure 3-4 Time efficiency

D. The redemption processes

Feedback from beneficiaries indicates a high level of satisfaction, with 95% stating that the redemption process was smooth and focused on maintaining their dignity, including treatment at distribution points. Project managers emphasized the importance of intensive field monitoring to ensure the smoothness of redemption and compliance of distribution points with project procedures. Furthermore, all respondents reported receiving clarification about the full redemption process during sensitization meetings held before receiving assistance. This proactive approach to informing beneficiaries contributes to smoother redemption processes and enhances their overall experience.

E. Cost/benefit of projects' beneficiaries

All implementing organizations collaborated with various partners to monitor food prices and issued monthly food price monitoring reports. Additionally, they conducted process monitoring at shops, providing an extra layer of oversight and fiscal controls. However, project managers highlighted that the division within the Palestinian civil service has diminished the capacity of local institutions to deliver services, exacerbating the challenges faced by the population. The consequences of the conflict, coupled with the global rise in prices, have led to increases in the prices of essential foods. In the Gaza Strip, prices of wheat flour, lentils, and potatoes rose during the project's implementation, with expectations of further increases driven by rising shipping costs and prices of imported goods. To address these challenges, project managers promoted sustainable practices by encouraging sustainable farming methods and local food production through beneficiary training at the project's outset. Moreover, they emphasized the importance of collaboration and partnerships in engaging stakeholders across the food supply chain, including producers, retailers, and consumers. Such collaborative efforts can facilitate coordinated actions to collectively address food price inflation and contribute to building a more resilient food system.

F. Cost/benefit ratio for the overall project

Analysing the project costs and considering the specific outputs and planned activities within each project component, they noted a balanced cost distribution, with 72% of the budget allocated for program costs. However, it should be noted that nearly 24% of the program costs included the salaries of staff directly involved in the action. An analysis of the financial execution, based on the last financial report, revealed a significant underspend of 21% in one project and 15% in the others. Further investigation showed that most of the underspend was primarily related to staff salaries.

Efficiency Rating: The evaluation rated efficiency as "Highly Satisfactory" since the project demonstrated that the costs involved in achieving results were reasonable and ensured access for the most vulnerable households to the funds allocated for community asset building. The project's goals were

achieved with the optimal use of resources, avoiding wastage. This finding validated the third hypothesis, H3: Adequate access to resources has a significant effect on the efficiency of humanitarian intervention for food security.

3.2.5 Research Question 4: Impact of the interventions

Impact evaluates how effectively a project achieved its goal of creating change. The projects were completed three months prior to the collection of research data, allowing for the observation of their longer-term effects. Regarding medium and long-term impacts, the project successfully met its output and immediate impact targets as specified in the food security objectives linked to the three studied projects. Impacts can be both positive and negative. For instance, providing food assistance can prevent households from selling productive assets like livestock to purchase food (a positive, intended impact), but it may also reduce local food production (an unintended, potentially negative impact) (Buchanan-Smith et al., 2016). Thus, this section addresses the fourth research question: what intended and unintended impact has the food security interventions made on the household?

A. Intervention's benefits per beneficiaries' perceptions

97.6% of survey respondents rated the project's benefits as very beneficial or beneficial, indicating a positive impact on their lives. The reported benefits included securing family food, repaying debts, improving health and education, avoiding further debts, enhancing FCS, eliminating the need for negative coping strategies, and facilitating market access. Beneficiaries also mentioned coping mechanisms they did not have to use because of the project's implementation. These included buying food on credit, relying on less preferred and cheaper foods, purchasing low-quality market goods, and gathering wild food, hunting, or harvesting crops.

B. Empowering woman

Although the empowerment of women was not a primary focus, the project led to both intended and unintended empowering effects for women. Approximately 70% of the surveyed female-headed households reported

that they were now more responsible for making financial decisions and spending on family needs, or at least shared these decisions more than before. Women indicated that this shift did not occur prior to the project for many of them. Additionally, women who benefited from the multipurpose cash (MPC) modalities stated that this assistance helped them purchase necessities such as medicine, pay for house rent, and buy clothes, which alleviated the burden of hard work to meet their families' needs. Moreover, to the greatest extent possible, the project supported shops owned by women, promoted local products from women-led micro, small, and medium enterprises, such as honey, olive oil, olives, and produce, and thus fostered women's economic empowerment.

C. Time use for each gender of the head of HHs

A significant 87.6% of women reported changes in how they spent their time, while others did not experience such changes. Additionally, 60.2% of beneficiaries mentioned that men partners generally helped with household chores and childcare before the project began, and the project did not significantly affect the division of childcare responsibilities. However, 39.8% of beneficiaries indicated that the project motivated a more equitable distribution of household tasks. Women spent an average of 8.0 hours per day on chores, compared to men who spent only 2.8 hours. The average time spent outside the home was 7.8 hours for men, whereas it was only 3.5 hours for women heads of household, indicating a difference of over four hours.

D. Reducing pressure, family conflict and strengthening community harmony

Based on respondents' feedback, many indicated that the project helped reduce family conflicts and supported broader community harmony. The most frequently reported impact was "pressure reduction," as the assistance alleviated the fear of starvation by securing basic food needs. Additionally, some beneficiaries were able to settle their debts, spend more time with their families, and secure other critical needs such as medicine and education.

E. Enhancing the local market resilience

The intervention had various direct impacts, including increased sales for local market actors, which consequently boosted their profits, helped settle longstanding debts, and improved cash flow. This enabled some market actors to expand their businesses. Almost all interviewed project managers confirmed that during focus group discussions conducted at the end of their projects, market actors reported an average sales increase of 60.3%, especially for consumer goods. Overall, the data from project reports showed that recipients did not face any difficulties accessing markets and felt safe receiving the assistance.

F. Food security and consumption

An analysis of the FCS revealed an increase at the endline, while CSI decreased. This indicates positive effects, as households exhibited higher FCS values, were more likely to consume acceptable diets, and were less likely to consume poor diets or use negative coping strategies.

G. The occurrence of impact of the food security interventions

The impact of the food security interventions has been analysed. Responses have been sorted and analysed about this impact. Various factors were analysed using descriptive statistics such as mean, Standard Deviation (SD), Relative Important Index (RII), and ranks. Each factor was assigned a sequential rank based on criteria including mean and RII (highest) and SD (lowest). When means and RIIs are similar, ranking hinges on the lowest SD. Table 3-6 highlights that "Food security intervention improve the nutritional status of your family, particularly children and pregnant women" and "Food security intervention break the cycle of poverty by enabling your family members to focus on education and work rather than survival, thus promoting economic growth and stability "were the most frequently cited impacts, ranked 1st and 2nd with RII values of 0.856 and 0.812, respectively, as per overall respondents. These findings align with SDGs aiming to alleviate poverty and ensure zero hunger by 2030.

Table 3-6: Ranks of the occurrence of impact of the food security interventions.

The Impact of the food security intervention	Mean	SD	RII	T-test	P-value	Rank
Food security intervention improve the nutritional status of your family, particularly children and pregnant women.	4.2	0.79	0.856	19.11	0.000*	1
Food security intervention break the cycle of poverty by enabling your family members to focus on education and work rather than survival, thus promoting economic growth and stability.	4	0.78	0.812	18.86	0.000*	2
Food security intervention reduced the social tensions and conflicts arising from food scarcity and inequality.	3.66	0.77	0.732	12.63	0.000*	3
Food security intervention improves health outcomes, reducing the incidence of diseases related to malnutrition, such as stunting, wasting, and micronutrient deficiencies for your family.	3.63	0.93	0.726	10.03	0.000*	4
Food security intervention enhanced cognitive function and physical capacity, leading to improved productivity and economic output	3.58	0.81	0.715	10.57	0.000*	5
Food security intervention increased the school attendance and improved cognitive abilities, leading to better educational outcomes.	3.45	0.83	0.658	4.27	0.000*	6
Food security intervention promoted gender equality by empowering women through better health and economic opportunities.	3.29	0.94	0.649	4.12	0.000*	7

Impact Rating: The evaluation rated impact "Highly Satisfactory" due to the project's successful achievement of its predetermined objectives and targets, effectively tackling the issue of hunger within its defined scope. It has yielded meaningful outcomes and laid a solid foundation for ongoing progress in combating food insecurity. Moreover, stakeholders, beneficiaries, and project partners have offered positive feedback, affirming the effectiveness of the interventions and the benefits they have experienced. This feedback suggests that the project has either met or exceeded expectations. Consequently, this validation supports the fourth hypothesis, H4: Humanitarian Interventions for food security have a significant impact on household food security.

4 CONCLUSIONS AND RECOMMENDATIONS

This chapter summarizes the study and aims to provide recommendations and conclusions for food security interventions. An overview was discussed by revisiting the research objectives and key findings to assess the extent to which the research objectives were met.

4.1 Conclusions

The world is facing a global food insecurity crisis marked by high and fluctuating food prices and a growing number of people lacking access to nutritious food. This crisis is driven by several factors, including acute and prolonged conflicts, economic disruptions, and the escalating impacts of climate change. Donors' earmarked funds and their specific requirements or preferences continue to influence the choice of assistance modalities, often sustaining in-kind assistance. However, donors have generally supported the use of cash to achieve food security outcomes in various contexts. A study was conducted to evaluate food security interventions three months after their completion. To achieve the study's goals, an extensive literature review was performed. The research aimed to develop a model for household food security through humanitarian interventions in the Gaza Strip. This included a desk study on food security in Gaza and interviews with project managers to gather their perspectives on evaluation criteria. Additionally, 362 collected questionnaires were analysed, and the findings presented. The research outlined four primary objectives based on the analysed questionnaires and interviews, which were connected to the research questions to enhance understanding of the topic. The outcomes were as follows:

A. Outcomes related to objective one

The first research question: To what extent did food security interventions meet the immediate needs of households? The relevance of food security interventions in the Gaza Strip was investigated by examining their contributions to the Sustainable Development Goals (SDGs), specifically poverty reduction (SDG 1) and ending hunger (SDG 2) through achieving

food security, improving nutrition, and promoting sustainable agriculture. The findings revealed that these projects were highly pertinent to the needs of the Palestinian people. They supported the second and third strategic objectives of the Humanitarian Response Plan (HRP) 2022, which aimed to meet the basic needs of vulnerable Palestinians living under occupation by providing quality basic services, improving access to resources in line with International Humanitarian Law (IHL), and enhancing the ability of vulnerable Palestinians to cope with the protracted crisis, including environmental threats, while addressing the root causes of these threats. In conclusion, the projects' interventions were consistent and valid, showing no shortcomings in relevance at the time of evaluation, thus rating them as 'Highly Satisfactory.' The interventions were logically structured and well-linked to the desired outcomes from the objectives to specific activities.

B. Outcomes related to objective two

The second research question: To what extent did food security interventions achieve their objectives including the timely delivery of relief assistance? The effectiveness of food security interventions in the Gaza Strip was investigated by examining their achievement of planned outputs and outcomes, effectiveness factors, and effectiveness indicators. The findings revealed that the projects were highly effective in meeting their objectives, including the timely delivery of relief assistance. Regarding effectiveness factors, the findings indicated that the food security interventions were flexible and responsive, adapting to changing conditions to ensure timely assistance delivery and tailored solutions. A well-communicated complaint and feedback mechanism was in place, accessible and secure for all beneficiaries, keeping the community informed about the status and resolution of their complaints. Community Committees were involved in all project stages, fostering ownership, enhancing relevance and effectiveness, and building trust between the project team and the community. All interventions addressed cross-cutting issues such as vulnerability coverage, protection, gender equality, and the principle of doing no harm, making the interventions more effective, equitable, and ethical, leading to more sustainable and positive outcomes.

Effectiveness indicators were used to quantitatively assess food security status by measuring two key indicators. Monitoring and analysing these indicators allowed stakeholders to make informed decisions and necessary adjustments to improve food security outcomes. The first indicator, the Coping Strategies Index (CSI), measures households' ability to manage food shortages by measuring the frequency and severity of coping strategies. The findings revealed an increase in CSI three months after the project's end, indicating a return to negative coping mechanisms. The second indicator, the Food Consumption Score (FCS), measures household food access based on food groups consumed over a specific period. The findings showed a significant decrease in FCS three months after the project ended. These results suggest that while food security interventions were very effective during the project period, they were insufficient to maintain the same level of food security once the support ended. In conclusion, the project's effectiveness was rated 'Satisfactory' based on the extent to which outputs, outcomes, and objectives were achieved. The evaluation noted the full achievement of all targets in objectives and the majority of outcome and output targets.

C. Outcomes related to objective three

The third research question: To what extent did adequate access to resources have a significant effect on the efficiency of food security's intervention? The efficiency of food security interventions in the Gaza Strip was assessed by evaluating how well tasks were accomplished and goals achieved with the optimal use of resources, including time, effort, and cost. The findings highlighted several key factors contributing to the project's efficiency. The projects were implemented in partnership with the Ministry of Social Development, international and local NGOs, and a wide range of stakeholders, including the government, donors, civil society, the private sector, and local committees. These partnerships combined diverse strengths such as technical expertise, local knowledge, financial resources, and logistical capabilities, enhancing the design and implementation of comprehensive food security interventions. The collaborative efforts among stakeholders pooled resources from various sources, resulting in more robust and well-funded interventions. This approach is crucial in resource-scarce settings where no single entity can tackle food security

challenges alone. Despite the dynamic and unpredictable humanitarian context, including fluctuations in exchange rates, project managers demonstrated flexibility and adapted to these changes, using increased funds to expand project coverage.

In terms of time efficiency, the projects' activities displayed clear signs of cost-efficient delivery. Evidence showed measures that drove cost efficiency and value for money, delivering services at lower than planned costs. In conclusion, the evaluation rated the efficiency of the projects as 'Highly Satisfactory.' The projects demonstrated that the costs involved in achieving results were reasonable and ensured that the most vulnerable households had access to the allocated funds for community asset building. Expenditures were managed within budget and spent as planned, despite several unexpected external challenges. The projects' goals were achieved with the optimal use of resources without wastage.

D. Outcomes related to objective four

The fourth research question: What intended and unintended impact has the food security interventions made on the household? The impact of food security interventions in the Gaza Strip was evaluated by examining the changes produced by the project's goals. These interventions significantly improved nutrition and health by providing access to food, ensuring that households received direct food assistance to meet basic nutritional needs, and promoting dietary diversity. This led to improved overall dietary quality and reduced malnutrition. Additionally, the food security interventions supported empowerment and social inclusion, particularly for women. By targeting women, the interventions increased their control over household resources and decision-making. The assistance provided helped women purchase other necessities like medicine, house rent, and clothing, reducing their need to engage in hard labour to support their families. Shops owned by women offered local products produced by women-led micro, small, and medium enterprises, such as honey, olive oil, olives, and other produce, promoting women's economic empowerment. This shift also led to changes in labour and time use, with men assisting more with household chores and childcare, thereby significantly impacting the division of childcare responsibilities within households.

Together, these results show that the food security interventions were successful at improving nutrition, well-being, and self-reliance for vulnerable people in the Gaza Strip. Based on these findings, Table 4-1 summarises how the author ranks each component in terms of the DAC evaluation criteria of Relevance, Effectiveness, Efficiency, and Impact.

Table 4-1: Overall assessment of the food security interventions

Criteria	Relevance	Effectiveness	Efficiency	Impact
Rank	High	Medium to High	High	High

4.2 Recommendations

Based on the findings presented in this research, the recommendations were addressed regarding the evaluation criteria. The project effectively targeted the most vulnerable households with humanitarian food security interventions and supported the broader community through community asset and support projects. Therefore, Table 4-2 offers recommendations to assist practitioners, implementation researchers, and policymakers working in food security and nutrition.

Table 4-2: Research recommendations

Evaluation Criteria	Recommendation
Relevance	<ul style="list-style-type: none"> • Implement a system that assigns overall assistance values per household member, adjusting for family size to ensure fairness in aid distribution. • Cash Working Groups and Food Security Clusters should continue to support food security actors in utilizing cash transfers and adjusting their values. • Increase intervention amounts to cover additional needs, including medical expenses. • Conduct continuous needs assessments to remain informed about evolving conditions and requirements, ensuring projects remain adaptive and relevant. • Share lessons learned and document best practices across all modalities to adapt to changing needs and approaches.

Evaluation Criteria	Recommendation
	<ul style="list-style-type: none"> • Coordinate closely with the Ministry of Social Development for household nominations and cross-checking against updated national registry data. • Collaborate with local authorities to improve beneficiary targeting acceptance
Effectiveness	<ul style="list-style-type: none"> • Emphasize Community Engagement and Accountability as fundamental components of ongoing efforts. • Disseminate monitoring and evaluation reports widely to raise awareness of food security outcomes in insecure contexts and to demonstrate best practices, which can mitigate misperceptions regarding food security modalities, especially in complex environments like Gaza. • Encourage multiple rounds of distributions to the same beneficiaries; while a single round can provide immediate relief, it often fails to significantly improve overall food security. • Adjust interventions based on individual indicators in response to rapid global fluctuations in currency exchange rates. • Address not only immediate food requirements but also the underlying factors contributing to food insecurity, such as poverty, unemployment, and limited access to resources. • Support small-scale farmers and food producers by enhancing their access to markets, providing financial assistance, and offering business development services to improve livelihoods and ensure community food security. • Establish reliable monitoring and evaluation systems to track progress, assess impact, and derive insights for ongoing project refinement and adjustment.
Efficiency	<ul style="list-style-type: none"> • Collaborate closely with local NGOs, community-based organizations, government agencies, and international partners to leverage resources, knowledge, and networks for sustainable solutions. • Sustain market monitoring and analysis across all operational areas to facilitate timely adjustments in transfer values and strengthen market systems whenever possible, thereby fostering a supportive environment for aid provision. • Ensure timely assistance delivery, as this can significantly empower individuals to procure their food necessities effectively.

Evaluation Criteria	Recommendation
Impact	<ul style="list-style-type: none"> • Integrate both immediate relief and longer-term recovery components into food security interventions, with durations ranging from 18 to 24 months, to foster the adoption and ownership of development initiatives. • Continue supporting current beneficiaries while introducing initiatives that promote savings, livelihoods, and income-generating activities to enhance long-term household food security sustainability. • Focus on livelihood and skills training for beneficiaries, emphasizing income-generating activities to transition them from reliance on external support to self-sufficiency. This may include business training, collaboration with microfinance institutions, grants, establishment of business incubators, and enhancement of agricultural value chains. • Incorporate sustainability into project design by identifying exit strategies that allow communities to continue benefiting from interventions post-project. This involves building local capacity, transferring ownership of assets and knowledge, and advocating for policies that support sustainable food systems. A well-informed exit strategy, based on evolving conditions rather than arbitrary timelines, is essential for a successful transition from crisis to recovery.

5 NEW AND NOVEL SCIENTIFIC RESULTS

In my research, the results show several novel scientific outcomes that can be used as a framework for further studies in the future.

1. The research findings have effectively addressed a theoretical gap and contributed to the development of strategies for promoting food security interventions. By employing a research methodology focusing on food security interventions, this study fills a critical theoretical void, contrasting with previous studies that primarily evaluated short-term interventions lasting 3-6 months (e.g. PAEEP, 2021). While this study examined a one-year project duration.
2. Based on the research, data to assess the impact of interventions were collected three months after the project concluded, recognizing that impact encompasses long-term and sustainable changes resulting from an intervention. These changes extend beyond immediate outputs and outcomes to encompass broader effects on individuals, communities, and systems. Notably, this aspect was missed in project reporting, as donors typically allow only one month for final evaluation.
3. This study employed a mixed-method approach, combining qualitative and quantitative methods to provide a comprehensive understanding of impact. Qualitative methods offer depth and context, while quantitative methods offer measurable data. The researcher established a positive and significant impact of food security modalities on food availability and accessibility, enhancing food security information for decision-making purposes.
4. The research findings recognised the critical role of monitoring and evaluation in enhancing the performance, quality, and relevance of food security interventions. Improving the quality of humanitarian action necessitates listening to the views of affected individuals. Therefore, enhancing monitoring and evaluation systems and accountability is crucial to enhancing program quality. Additionally, engaging with affected populations enhances the effectiveness of humanitarian programs by gathering information to inform program decisions and better meeting the needs of those affected by crises.

6 LIST OF PUBLICATIONS

Junejo, I., Rahoo, L. A., Ejaz, F., Ejaz, S., Nassar, S., & Hossain, M. B. (2024). Role of technology development, organizational development and individual development on knowledge sharing in developing country. *Journal of Infrastructure, Policy and Development*, 8(9), 3099. <https://doi.org/10.24294/jipd.v8i9.3099>

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