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MLA Citation

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The American University in Cairo

School of Global Affairs and Public Policy

**Integrated Agricultural Interventions and Women's Empowerment\
A Case Study of "She Feeds the World" – "Aysheen Bekhirha" Program in
Egypt**

A Thesis Submitted to the

Public Policy and Administration Department

**in partial fulfillment of the requirements for the degree of
Master of Public Policy**

By

Pakinam Mohamed Shibl

Fall 24

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Abstract

“She Feeds the World” program is a program that empowers women in farming communities by integrating them into the agricultural value chain. With increased access to essential resources such as land, seeds, water, and technical training, women are expected to actualize their full potential and generate more income. This paper explores the intersection of societal mobilization and economic development through a case study of the “Aysheen Bekhirha” program. By drawing on primary sources, the researcher aims to provide insights into the program’s multifaceted approach and its impact on economic and social outcomes. The analysis focuses on the significance of women’s financial and productive contributions to their families’ well-being and quality of life. Additionally, the researcher examines the program’s transformative power in empowering women through participants’ perceptions and voices in improving their livelihoods and fostering a more equitable and resilient rural society in Egypt. Participants reported significant improvements in their financial independence and decision-making power, which led to increased household income and better nutrition outcomes for their families; they even perceived the enhanced relationship with their children and their husbands too. Through agricultural training and capacity building, women engaged in the program have sustainably improved their skills, fostering a culture of shared support and collaboration within their communities.

ACKNOWLEDGEMENTS

My passion for understanding the lives of rural women in Egypt stems from a deep-seated connection to agriculture, instilled in me from a young age. Growing up on our family's potato farm, I witnessed firsthand the unwavering dedication and resilience of the women who toiled in the fields. Their stories and wisdom left an indelible mark on me, inspiring me to explore their vital role in Egyptian society. My thesis is a tribute to these remarkable women, whose contributions often go unnoticed yet are essential to the fabric of our nation.

My deepest gratitude and dedication go to my father, whose unwavering support and inspiration have been the driving force behind every step of this journey. Without his guidance, encouragement, and belief in my abilities, I would not have reached this milestone.

This thesis is also a tribute to my late mother "Hanaa" to whom I owe her my existence, and my beloved mother "Hanan" to whom I owe her everything.

I would like to extend my gratefulness to my siblings (Passant, Nourhan, and Omar). They were the true backbone to me. They were supporting me throughout this journey, and I am eternally grateful for their presence in my life.

I extend my heartfelt thanks to my supportive, caring friends and colleagues, whose encouragement has pushed me to do my best on this journey.

My heartfelt appreciation goes to AUC my second home and my esteemed professors for granting me with a wealth of invaluable learning experiences. My deepest gratefulness to the people of Care Egypt, whom I would not have reached to those incredible women without their support.

Last but not least, my profound gratitude extends to the remarkable people of Behira and Beni Suef, their generosity and openness have provided me with profound insights into their lives, experiences, and aspirations.

"This work is dedicated to every woman who is working hard towards a better life for herself and her family."

Chapter 1: Introduction

For many rural area's residents, agriculture is the primary source of their income. Impoverished households are vulnerable to under-nourishment and lack of healthy nutrition sources of food. To adequately meet the projected population's food, livelihood, and nutritional requirements in the coming decades, there is a pressing need for efficient and enduring tools, mechanisms, and strategies. These tools should substantially enhance global agricultural productivity, farm income, and food availability (Hemant Nitturkar, 2021) .

Arimond et al. (2011) highlighted the potential of agricultural interventions to positively impact nutritional outcomes. However, they emphasized the need for more empirical evidence to inform effective program design and evaluation. Gender plays a significant role in the context, and addressing gender disparities is essential for achieving Egypt's 2030 national strategy and aligning with the UN Sustainable Development Goals (SDGs) (Foad, 2023). By focusing on gendered matter research, we can bridge the gap in women's and gender data, which is crucial for promoting women's empowerment and gender equality across all aspects of life.

Studies have consistently shown that women in Africa face unequal access to agricultural resources compared to men Jessica et al., (2020). Male-headed households often have more land, equipment, and education, leading to greater access to innovative farming practices. While joint ownership of assets is common, men typically have more control over these assets, including the right to make decisions about their use. (Gebreselassie et al., 2013; Jessica et al., 2020)

According to UNESCO (2023), Egypt ranked 129th out of 146 countries in 2022 Global Gap Index; 49% of female students are enrolled in higher education in Egypt 2021/2022; 27.40% of women proportion of seats held in national parliaments (% of total number of seats), 20.57% of female participation in labor force rate (15 years and above), and last, 7.10% proportion of women in managerial positions (UN Women, 2022) . This means that Egypt a long way of closing the gender gap.

According to Krafft, Assaad, and Keo (2019), a large portion of Egypt's population almost 60% resides in rural areas, particularly among young people .This demographic presents unique economic and social challenges that are crucial to addressing Egypt's future. Rural women, especially young ones, face significant disadvantages due to their age, gender, and

location. Empowering this group can be a catalyst for economic growth and development (IFAD 2019).

Small scale food production programs' main objective is to achieve access to nourishing food, food security, and livelihoods for its beneficiaries. It has been reported that these programs accomplish these goals and propose a valuable platform for delivering specialized nutrition interventions targeting women and children (Kumar et al., 2018). She Feeds the World (SFTW) is an integrated framework project developed to solve the abovementioned problems, aiming to enhance food and nutrition security for impoverished rural households, highlighting women's small-scale producers .

This research aims to investigate the “Aysheen Bekhirha” program, a key component of the ‘She Feeds the World’ initiative. The program seeks to empower women in the agricultural value chain this study aims to understand how economic and social empowerment can be achieved gender inequalities addressed, and improved livelihoods and overall well-being fostered.

The motivation behind this study stems from the pressing need to address persistent gender inequalities in rural Egypt, where women's roles in agriculture are often diminished despite their significant contributions to food production and family nutrition (Jessica et al., 2020; Gebreselassie et al., 2013; Hemant Nitturkar, 2021). By examining the multifaceted approach of the "Aysheen Bekhirha" program, this study aims to provide insights into how agricultural interventions can serve as mechanisms for women's empowerment and sustainable development. Additionally, it seeks to shed light on the lived experiences of participants, amplifying their voices and highlighting the impact of the program on their daily lives, family dynamics, and community engagement. Through this research, the goal is to contribute to the discourse on gender equality and sustainable agricultural practices, ultimately advocating for policies and strategies that support women's active participation in agricultural development in Egypt and beyond.

For the SFTW project, the direct beneficiaries are farmers, and their families, other community-based groups and households targeted with leadership development. The five focus areas are:

1. Supporting women's empowerment
2. Enabling nutrition improvement
3. Strengthening women's access to markets,

4. Improve women's access to resources,
5. Expand benefits across communities.

1.1 Project Background: She Feeds the World “Aysheen Bekhirha” by CARE Egypt

The She Feeds the World (SFTW) program "Aysheen Bekhirha", implemented by Care International in Egypt, aims to improve food security and nutrition for poor rural households, particularly women and youth. Funded by the PepsiCo foundation, the program targets 10,000 households to directly reach 65,000 women of reproductive age, men and children under two years of age, and indirectly benefit 325,000 individuals in four governorates (Behira, Giza, Beni Suef, and Minya). The project is being implemented in Egypt in the period between 2019\2020 and 2022. Key objectives include increasing access to nutritious food, supporting small-scale farmers, strengthening food security systems, and promoting water management (CARE, 2020).

The SFTW program has elements of an integrated agriculture approach as it focuses on women’s empowerment, promotes sustainable practices, improves nutrition and food security, and enhances market access for beneficiaries and creates economic opportunities (Kerr et al, 2016). The program provides women with training, access to markets and financial resources such as loans and deposits services through village savings and loans associations (VSLA) “The box .”

"Aysheen Bekhirha" a Comprehensive Program Addressing Economic, Social, and Agricultural Needs to empower women in rural communities.

A) Economic empowerment session:

The economic empowerment sessions introduced participants to the village savings and loans associations (VSLAs), known as the “BOX”. These self-governed groups, consisting of 15 to 25 women in each village, meet weekly to contribute small amounts of money (5 EGP). This pooled fund is used to provide loans to participants in need, whether for financial emergencies, family matters, or starting a new project. The sessions also include financial literacy training, covering topics such as project management, household budgeting, and feasibility studies to help participants strengthen their financial skills and business planning.

B) Social empowerment session:

These sessions emphasize gender equality and positive parenting. Participants explore these topics through the story of “Fayza and Anaam”. The sessions focus on building self-

confidence, promoting non-discriminatory child-rearing practices, and fostering positive parent-child relationships.

By challenging traditional gender stereotypes and encouraging equal opportunities for boys and girls, the program aimed to empower women and create healthier, more equitable families.

C) Nutrition education:

A nutrition education session focused on young child feeding is conducted for the caregivers of program participants. Trained nutrition educators led these sessions, guiding how to prepare nutritious and complementary foods. Additionally, kitchen schools were held to introduce new, budget-friendly recipes, emphasizing the inclusion of essential ingredients in daily meals.

D) Farm Field Business School (FFBS):

This school is a practical training program that teaches women farmers new agricultural techniques and sometimes women with zero farming knowledge through hands-on experience. The program emphasizes agricultural practices, gender equality, environmental sustainability, and nutrition. This school helps women develop the skills they need to become successful entrepreneurs, including how to work together collectively, find good markets, and sell their products at good, fair prices. They meet once a week, in mixed session with men from their community to support the inclusion notion of the program (CARE, 2020).

Using Data Envelopment Analysis (DEA) of survey data collected in 2009, KM Zahidul Islam et al. (2011) conducted a qualitative study of the technical, economic, and allocative efficiency of agricultural microfinance borrowers and nonborrowers in rice farming in Bangladesh. This study highlighted that self-help groups have been acknowledged as a valuable tool to assist the impoverished and as a potential mechanism to meet the impoverished's urgent credit needs through savings.

1.2 Target group for “Aysheen Bekhirha” Program

The program targets 10,000 households to directly reach 65,000 women of reproductive age, men and children under two years of age, and indirectly benefit 325,000 individuals in four governorates (Behira, Giza, Beni Suef, and Minya).

Dr. Hanaa, the program director, and Hassan, the program manager of Aysheen Bekhirha program said, “*we target all people working in the agricultural community, not just*

farmers, but landowners, daily Workers, NGO employees, etc. With giving priority to women aged from 18 to 49 years". **Hanaa and Hassan** added that "the number of direct beneficiaries of the (Aysheen Bekhirha) project reached 10 thousand individuals, in addition to their families, making the total beneficiaries 65 thousand. In addition to 325 thousand indirect beneficiaries".

Hassan explained that the projects' training encompasses a range of areas, including "nutritional training, social empowerment, agricultural procedures, financial inclusion and illiteracy, project management, and feasibility studies."

1.3 The significance of the study:

This study is driven by a motivational desire to tackle the complex challenges that rural women in Egypt face, it aims to explore the process of integrated agriculture interventions that promote gender equality, empower women socially and economically, and contribute to sustainable development through a comprehensive approach. Specifically, the research examines how programs like "Aysheen Bekhirha" can improve women's quality of life by focusing on multi-dimensional aspects such as financial literacy, overall well-being, and fostering a more equitable and resilient society.

1.4 Research objective:

This paper attempts to fill in some of the gender gaps in this theme. The paper will analyze the data using in-depth semi-structured interviews and qualitative questionnaires that will be conducted in rural Egypt (Beni Suef and El Behira Governorates). With this data, the researcher will be able to identify significant features that regulate women's decision-making power in her family and to examine how this may affect women's economic empowerment and women's and children's health status.

1.5 Research Questions:

This research aims to provide insights into the effectiveness and implications of an integrated agricultural intervention from the perspective of participants. By examining its suitability for the specific context, identifying challenges, evaluating participant satisfaction, and assessing the consequences of implementation, this study seeks to offer a comprehensive understanding of the program's outcome. The main research question is, to what extent do integrated agricultural and food security projects have a positive outcome on women's quality of life in rural areas? The SFTW- "Aysheen Bekhirha" program will be used as a case study.

Through the research design and data collection process, the following questions will be answered:

1. To what extent do agriculture projects affect women's economic empowerment?
2. To what extent do agriculture projects affect women's social empowerment and overall well-being ?
3. To what degree did the project meet expectations in terms of satisfaction? What are the outcomes resulting from the implementation of the integrated agricultural program.
4. What challenges were encountered in implementing the project's objectives?
5. How well-suited was the project for the specific conditions and requirements of the Egyptian context?

Chapter 2: Conceptual Framework

A more just and sustainable agriculture system that benefits all parties involved happens when integrated agriculture intervention and intersectional targeting are combined. Additionally, it is a framework to maximize the production and utilization of resources provided by integrated agriculture and guarantee a tailored demand for marginalized communities as in intersectional targeting. This will eventually enhance food security, reduce poverty, and help in improving well-being just with integrating this strategy (Cristina et al., 2017).

Intersectionality. Intersectionality as a concept first originated in the context of black feminism. Crenshaw (1989) was the first one who defined it as the interaction between gender, race, and other categories. These categories can represent either differences in the lives of individuals or practices that are socially based, or ideologies which are culturally based. He further explained the outcomes of these interactions in terms of power, and thanks to him the definition was added to the Oxford Dictionary in 2015 highlighting its significance. Using simpler terms, intersectionality is the concept that shows all types of oppression that are related by one way or another. Furthermore, intersectionality is the acknowledgment that each and everyone has their own experiences of discrimination and oppression.

In the development field, a mere consideration must occur on everything and anything that can lead to marginalizing a human being, whether its gendered, class, ethnicity, or for physical ability (Ramsay,2014; DeBlaere, & Langrehr 2018; Wyatt, Johnson, & Zaidi, 2022).Without the intersectional lens, developmentalists efforts to tackle inequality and injustice toward women will most probably end up extending more inequality (Tavener et al., 2022; Farhall & Rickards,2021). Farhall & Rickards (2021) mentioned that historically in the developmental field scholars battled to stream gender issues on the global development agendas and stated that gender equality has effectively been normalized in some of the agricultural research for development programming .

Lately, specialists in gender and development have come to understand more deeply the significance of intersectionality. These relations play a crucial role in determining how individuals can take advantage of opportunities in agricultural development (Ravera et al., 2016). This concept first came into the development field as a way of instead of focusing on mainstreaming gender, developmental projects focus and deal with various sources of

oppression that hit their targeted beneficiaries (El Baradei & Elwy, 2023; DeBlaere, & Langrehr,2018) .

Another perspective that has emerged is the feminist intersectional approach. Ravera et al., (2016) describe this approach as instrumental in recognizing various adaptive responses. These responses curb the complex layers of personal identity, including gender, and intersect with power dynamics. This intersection influences the unique ways in which farmers interact with their environments.

Community Development Approaches. Over the years developmentalists came with different definitions that vary between the sources. However, all these sources share the same and outmost element which is the process which helps in bringing people together to achieve a common goal and help underprivileged communities to make a positive change in enhancing their quality of life and well-being of their communities (Hessin, 2014). Stating that, all of these definitions have a common methodology of building connections and help in enhancing the qualifications of citizens and associations .

According to Hameed et al., (2017), community development approaches are seen as an essential solution for poverty alleviation in low income and underprivileged communities. These approaches are multifaceted and may encompass a variety of initiatives designed to reduce poverty by fostering economic, social, and physical enhancements for individuals in marginalized communities (Phillips & Pittman, 2009).

In light of the clear shortcomings of standard, authoritative, top-down methods of community development, there has been a shift towards more bottom-up participatory methods in the development sector. This review examines five principal strategies of community development: the charitable model, the needs-based approach, the rights-based approach, the asset-based community development (ABCD) method, and the Integrated development approach (El Baradei & Elwy, 2023) . For the sake of this paper, the three most vital approaches (the charity approach, the needs-based approach, and the integrated development approach) will be discussed .

First, charity model is also known as the generosity model which is the first and most straightforward approach in the community development field, aiming to elevate any human suffering or fulfilment of human needs. There is an assumption that donors already know who needs the charity and know quite well their basic needs so the donations will go to them in various ways. This includes money, medical care, shelter, and clothes in some cases (Hessin,

2015). Hessin (2015) concluded that this type of model does not achieve as much to meet the needs of sustainable solutions to any of the poor communities it does not solve the root cause of the problem or even try to fix it.

The needs-based approach, a traditional approach that was introduced to tackle poverty in deprived communities, aims to create a bridge between the community leaders in the development process and tailor the interventions and programs based on the needs of the community while linking the donors with the underprivileged (Nel, 2018). There are two challenges with this approach: it causes organizations to lose sight of the innate qualities, assets, and strengths of communities in favor of focusing on their problems and assigns communities' problems a name. This turns the beneficiaries into passive recipients of assistance and raises the potential of negatively affecting people's mental health (Nel, 2018).

The third approach is the integrated development approach which is the combination of economic, social, and environmental factors. Koroneos & Rokos (2012) mentioned that it will need intentional efforts on the part of human societies to help creating the necessary frameworks in the fields of education, research, economic, technology, and the environment. These types of initiatives support fundamental human values such as democracy, justice, peace, solidarity, and respect for both the environment and cultural diversity.

The authors discussed the concept of “worth-living integrated development” which is mainly a combination of social, economic, and environmental development, advocating for a developmental model that addresses social, economic, and environmental needs of communities while providing a meaningful life for individuals in society.

Integrated Development Approaches. A multi-dimensional approach that considers the various facets of women’s economic empowerment is needed for this transforming process. It includes guaranteeing equal access to financial, healthcare, and educational resources, advocating for respectable employment and pay scale, eliminating violence and discrimination against women, and cultivating an atmosphere that recognizes and encourages women’s leadership and involvement in decision-making (Jain, 2023; Smriti, 2020; Nahar & Mengo, 2022). By adopting this comprehensive approach to women’s economic empowerment, all developmental practitioners can work together to create a more fair, prosperous, and just future.

Integrated Agriculture Interventions.

Integrated agriculture is an approach for achieving sustainable agriculture that aids in providing a thorough analysis of a transformational agriculture model meant to completely alter agricultural techniques around the globe (Amanullah, K. 2024).

An increasing array of governments, donor agencies, and development organizations are dedicated to endorsing nutrition-sensitive agriculture to accomplish their development objectives. Interventions in agriculture have traditionally been recognized as having an impact on nutrition. Many researchers agree that any agricultural intervention should be designed with a specific goal of improving nutrition outcomes (Masset et al., 2012, Wordofa and Sassi 2020).

In their study, Wordofa and Sassi (2020) investigated the effects of agricultural interventions on food and nutrition outcomes. They found improvements in economic indicators like income, asset accumulation, and poverty reduction and positive findings regarding the relationship between nutrition and knowledge, attitudes, and practices (KAP) .

According to the study abovementioned, food consumption, dietary diversity, and other food security factors had a considerable positive impact. However, the study also found that anthropometric¹ measures showed various levels of success, emphasizing the need for more investigation to fully comprehend the complex relationships between agricultural interventions and nutritional status (Wordofa and Sassi, 2020).

The studies by Yetnayet et al., (2017), Negash et al., (2014), Mulualem et al., (2016), and Hirvonen et al., (2017) all found that interventions that promote food-based approaches to nutrient deficiency led to significant improvements in knowledge, attitudes, and practices related to these approaches. This was particularly evident in the increased consumption of bean-based diets and complementary feeding .

Mulualem et al., (2016) discovered a negative impact on HAZ, the standardized measure of children's height, despite the majority of research finding positive effects on anthropometric factors. Nonetheless, Hirvonen et al., (2017) emphasized how crucial it is for markets to be in good working order to transform caretaker nutrition knowledge into better dietary diversity.

Building upon the conversation about integrated development, it is essential to investigate and dive into the influence on the notion of quality of life. Integrated development

¹ Anthropometric: is the systematic measurement of the physical properties of the human body, primarily dimensional forms of body size and shape.

approach can greatly improve the well-being of people and communities through promoting equal and sustainable practices. Linking these together emphasizes the researchers' desire to show how crucial it is to prioritize quality of life in the development field.

There are four Quality of Life (QOL) dimensions that are often studied: somatic state, psychological well-being, social relations and physical fitness. **Kiebert (1997)** expressed that to measure one's quality of life, those four dimensions should be examined. In recent research analysis, it was found that there are eight key areas that significantly impact an individual's quality of life (QOL), these different areas are multi-dimensional and affect each and every aspect in someone's life. This includes interpersonal inclusion, social inclusion, personal development, physical well-being, self-determination, material well-being, emotional well-being, and rights. Different researchers throughout the years identified these totals of 125 indicators that are related to these domains across 16 published studies (Schalock, 2004). Until today, these abovementioned indicators are being operationalized and used to measure quality of life (QOL).

Schalock (2004), showed that there are two important factors that have significantly impacted the area of measuring quality of life. The first factor is the consumer satisfaction and personal outcomes which means that there is a shift towards evaluating programs based on how satisfied consumers are and the impact of it on their personal well-being. Second factor is the new quality of life models that consider various aspects of life as for example, personal assessment, functional abilities, and social indicators. Adding to that, they highlight the understanding of how different systems such as family, community, and society affect people's value and beliefs.

Another model was developed by the Ferrans conceptual model of quality of life in 1996. This model acknowledges that quality of life is dependent on the different and unique experiences of each person's life. Every person is the only judge over their quality of life, explaining that people differ in what they value. Four areas of quality of life resulted from the model: health and functioning, psychological\ spiritual, social and economic, and family (Ferrans, 1996). Based on that model, the Ferrans and Powers Quality of Life Index (QLI) was developed. It is a tool to measure an individual's overall quality of life considering physical health, emotional well-being, social relationships, and other different, important aspects. After assessing those aspects, the index helps researchers and healthcare professionals understand how people perceive their own quality of life. And in my opinion, it helps not only health care

professional, but also development professional that design programs to help vulnerable community to alleviate poverty (Ferrans, 1996). This index measures the quality of life for healthy individuals and people who are experiencing an illness as well. It consists of two sections; one that measures satisfaction with different aspects of life, and the other measures the importance of the domain to the subject. This index is free for every adult, available in various languages to be accessible for different nationalities and can measure the aspects more clearly and in a comprehensive lens.

The country gender assessment of agriculture and rural sector in Egypt by FAO (2022), provides a comprehensive analysis of the situation and offers actionable recommendations for numerous stakeholders. First, it talks about the marginalization of women and stresses that women are active players in different agriculture sub-sectors. However, women are still invisible and marginalized by institutions providing support services, affecting their potential and empowerment. Next, the assessment mentions the cultural and structural barriers that they face through gendered cultural norms, structural barriers, and institutional biases that limit women's opportunities and contributions in agriculture, with patriarchal values particularly challenging in rural Egypt. Finally, the assessment mentioned that very few Egyptian women own land or have access to productive assets, which hinders their economic opportunities and bargaining power. The country assessment brief recommended and suggested a gender-responsive, community-centered approach to strengthen agriculture and rural sectors, emphasizing the need for policy advocacy, capacity development, and partnerships to address these challenges.

The Egypt Network for Integrated Development (ENID) Program was one of the integrated development approaches examples that was successfully implemented in rural communities especially for women with unfortunate circumstances. Using the integrated approach, ENID's objective was to empower disadvantaged women and youth too in rural upper Egypt through various skills development and job creation (El Baradei & Elwy, 2023).

The EIND program, by Chopra (2018), worked on different projects that collectively contribute to integrated development through focusing on creating viable and sustainable employment opportunities in Upper Egypt through several and multidimensional means. First this program works on upgrading basic services through enhancing essential services such as healthcare, education, and infrastructure services in rural communities. Second, the program worked on promoting medium, small and micro enterprises (MSMEs) and entrepreneurship

projects through supporting local businesses by supporting and granting training, resources, and financial assistance. Third, the program also works on improving agriculture sector practices, enhancing productivity, and ensuring food security in Upper Egypt. Fourth, ENID engages in research, knowledge sharing, and policy advocacy to drive positive change in the area (Chopra, 2018).

Integrated Development and Holistic Well-Being Concept

Holistic Well-being and Quality of life. Amin et, al. (2015) introduced the integrated development index (I-Dex) as a comprehensive approach to measure the human development, representing the holistic well-being of people in various ways. It integrates both physical and spiritual dimensions, which was developed based on the Maqasid al-Shariah which is a principled objective of Islamic Shariah. This index provides an alternative to the existing measures like the human development index (HDI), which focuses on income, education, health, the newest index I-Dex measures in a broader range of factors and ensures the alignment of inclusivity and sustainable development perspective, and confirming the urgency for developing this alternate model which represents a more inclusive concept of development that integrates the physical\material, intellectual and spiritual dimensions of human beings (Amin et, al. 2015).

An article written by Ferrer (2022), explores how nurturing various aspects of our lives can contribute to a holistic sense of well-being and self-care. He delved into the holistic wellbeing of people and how it's being measured through a comprehensive approach that takes into consideration different dimensions of an individual's health and happiness rather than focusing merely on physical health. The article encompasses different aspects of humans' life such as mental, social, emotional, and spiritual aspect. There are six interconnected dimensions that lead to a balanced and fulfilling life (Ferrer, 2022):

1. Physical well-being: aspects of the overall bodily health, like nutritious habits, sleep, and exercises and to ensuring feeling energized, maintaining healthy weight, and the process of preventing illness.
2. Mental and emotional well-being: cognitive functioning, being emotionally stable, and resilient to different circumstances, with mainly relates to feelings of happiness, and stress free.

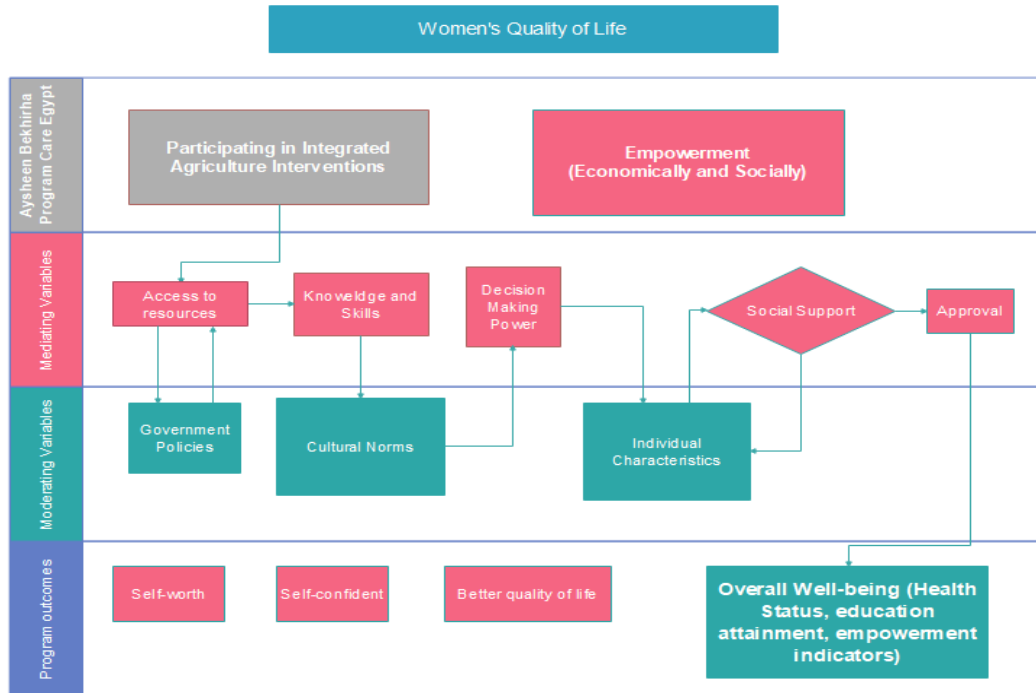
3. Social wellbeing: the presence/absence of connection and healthy relations with others, social support and sense of belonging.
4. Spiritual wellbeing: a safe, clean environment that help in nurturing one's spirit
5. Occupational wellbeing: job satisfaction, work-life balance, and career fulfillment.

Jiwattanasuk et al., (2022) combined ideas from Western, Eastern, and Buddhist philosophies to create a comprehensive definition of holistic well-being. This study examines how holistic concepts can contribute to improved human health and quality of life. It focuses on the connection between well-being and quality of life, exploring how these concepts are related and how organizations can effectively implement them to promote overall well-being.

On the individual level, to improve quality of life a holistic well-being aspect should encompass mental health improvements, physical health interventions, and high-quality social life\health for all individual. On an organizational level, to improve the quality of life among employees, physical health, mental health, and relationships improvements should be considered. This would also increase organizational effectiveness and eventually lead to sustainable success (Jiwattanasuk et, al. 2022).

Well-being and Subjective Well-Being. Jiwattanasuk et, al. (2022) proposed that well-being refers to a positive emotional and mental state. This is indicated by increased comfort, positivity, and less negativity. Hence, satisfaction with life would increase due to a harmonized alignment between the body, the mind, society, and spirituality. Jiwattanasuk et, al. 2022 later introduced the perspective of subjective well-being which implies an individual's overall experience, and that we should take into consideration both emotional and wisdom aspects. Subjective well-being includes positive feelings, minimum negative effect, and high life satisfaction. Subjective well-being reflects personal evaluations of whether desires and goals are met which leads to happiness that will be based on individual viewpoint.

Figure 1: Proposed Conceptual Framework



Source: Constructed by Researcher

Figure (1) demonstrates the conceptual framework this research will follow. This framework study includes mediating and moderating variables. Mediating variables are the ones that explain how the independent variable, integrated agricultural interventions, affects the dependent variable, women’s quality of life. However, the moderating variables are the ones that change the direction of the relationship between the independent and the dependent variables. Moreover, this framework shows that access to resources, knowledge and skills, decision-making power, and social support are the variables that are the methods through which integrated agriculture interventions improve women’s quality of life. Government policies, cultural norms, and individual characteristics are the variables moderating, that can affect the strength of the relation between integrated agriculture interventions and women’s quality of life.

Chapter 3: Literature Review

This paper aims to enhance the understanding of effective, scalable, and sustainable integrated development programs designed for rural women in Egypt. This will be accomplished through three main objectives: *first*, to analyze the policy framework and identify key stakeholders affecting women's empowerment initiatives in Egypt; *second*, to synthesize global evidence on the effectiveness of rural women empowerment programs, contextualizing this within Egyptian programs; and *third*, to propose actionable recommendations for enhancing the integration of evidence in policy-making processes to advance labor market outcomes for rural women in the country.

Overview of the features of the Agriculture Sector Globally:

According to Adekunle et. al., (2013), agriculture sector has a high potential to stimulate and enhance the conditions of economic growth in Sub-Saharan Africa (SSA). However, its governed and dominated by smallholder farmers that practice subsistence farming. These practices are underdeveloped in some countries due to the existence of technical, institutional, and infrastructural constraints.

Globally, women are engaged as farmers and farm workers. They frequently handle the storage and processing of the agriculture products. In certain regions, they are pivotal in the marketing of the crops. Nearly universally, they are instrumental in maintaining the food security of households, an objective that subsequently influences decisions about crop selection and other farming practices. Therefore, any change introduced in agriculture is bound to affect women and based on the specific gender dynamics, may affect them differently than men (Rao 2016, referencing from Meinzen-Dick et al 2011).

The following themes are sequenced in an order that traces the evolution of the gender gap in agriculture as a beginning. Closing the gender gap in agriculture would produce significant gains for society by increasing agricultural productivity, reducing poverty and hunger, and promoting economic growth. Governments, donors, and development should focus on different policies to address these challenges and find a solution for it .

Gender in the Agricultural Development Literature

Although there are strong patriarchal features in the agriculture process in developing communities, yet in many areas such property ownership and access to resources, women do not have control over resources such as mobility, land, credit, secured housing and are at risk of household violence (Brody, Demetriades, & Esplen, 2008). Although these factors shape the agricultural sector, women's contribution in agriculture labor and food production are immense and obvious.

Agriculture has yet to reach its full potential in many developing nations. One factor hindering it is the insufficient support for women farmers, while women play important roles on the land as farmers, laborers, and business owners, they frequently encounter greater obstacles than men in securing vital resources, networks, and assistance. Whether in terms of land rights, access to credit, technology, education or markets, the gender-gap between what women and men need to thrive remains wide (Munshi & Singh 2023) .Najjar et al. (2020) highlighted that women are disadvantaged in the land ownership, and that men often underestimate women's preferences for owning permanent property such as: Land and housing .

Krall (2015) explained that women are taking more on roles from men for example agriculture production, which was solely men's responsibility and also livestock farming, however, in many countries' women have no access or control over land, and cattle, which in some contexts are traditional reasons and others are by law .Adding to that, women's access to resources, some services related to this process, information\advice, and in most cases are denied from the innovative ideas regarding to farming\poultry\cattle breeding solutions that may help in producing more and accessing to the market (Krall, 2015). All these blocked privileges hinder women from having any equal voice in the decision-making process in their household, especially in the rural context.

Referencing to Lee et al., (2015), the international agriculture development community are strongly pushing hard to close the gender gaps in the case of production as they believe that it is caused by differences between men and women especially in decision making power, asset ownership, and access to resources .The aim to resolve the issue of closing the gap between gender is always framed in solutions to empower women. The debate is around the need to improve women's level of empowerment so that the farm productivity levels increase. Noting that in the context of enhancing women's status in the community should be highlighted for its

anticipated impact on agricultural output, rather than being recognized as a valuable goal in itself (Rao, 2016) .

There remains a lack of comprehensive data in developing countries on the evolution of gender disparities in resource management over time, particularly in relation to agricultural policies and technological advancements interventions (Rao, 2016). This lack of data is unexpected, considering the widespread influence of advancements in agricultural technology and policy on the gender-based differences in managing agricultural resources . Now that the gender gap in agriculture has been effectively addressed, we can focus on Egypt, where there is still a significant percentage of poverty in the country's rural areas .

Background: Egypt

The purpose of this chapter is to shed the light over the main features of the agriculture sector in Egypt and examine the evolution of poverty over time in rural areas especially tackling the gender role of women in agriculture and farming process .The Egyptian agricultural sector was exposed to major changes and alterations all through the past five decades, that created a significant impact on the sector. Adding to that, several policy makers in the developing field altered the interventions purposes and caused to shift poverty in the agricultural sector.

Poverty in Rural Egypt

Poverty has been a persistent problem and major challenge for policy makers in Egypt. In rural regions, it has been observed that poverty levels are more pronounced compared to urban areas. Poverty distribution varies significantly within Egypt; in urban zones, where nearly 42% of the inhabitants' lives, exhibit relatively lower poverty rates. Contrarywise, the majority of the impoverished population is concentrated in the Upper Rural region². This area stands out as the largest contributor to the country's poverty. Remarkably, while only 24.9% of Egypt's population resides in the Upper Rural region, it is home to 50.9% of the nation's poor, indicating a disproportionate share of poverty (EL Leithy & Armanious, 2018).

Showing that not only poor households in the upper rural areas are the large proportion of their population, also, their expenditure level utterly far below the poverty line. According to EL Leithy & Armanious, (2018), poverty has increased progressively to 27.8% in 2015 compared to 16.9% in 2000, which is mostly higher in rural areas compared to their urban

² Geographically, Egypt is divided into seven regions: Metropolitan; including Cairo, Alexandria, Port Said and Suez governorates, Lower Urban and Lower Rural; which include urban and rural areas of Damietta, Dakahlia, Sharkia, Qualiobia, Kafr el-Sheikh, Garbeyya, Menoufia, Beheira, Ismailia governorates, Upper Urban and Upper Rural; which include urban and rural areas of Giza, Bani Suef, Fayoum, Menia, Assiut, Sohag, Qena, Aswan and Luxor governorates, and Border Urban and Border Rural; which include urban and rural areas of Red Sea, New Valley, Matrouh, North Sinai and South Sinai governorates

counterparts. Although women in urban areas enjoy a great amount of power and freedom, rural women are greatly disadvantaged. Investing in women's economic empowerment will indeed shift the gear to their favor and will change their lives (Isangula, 2012).

Facets of the Agriculture sector in the Egyptian Context

Agriculture plays a crucial role in the Egyptian economy; different Egyptian policy makers pay a huge attention for this sector as it is the utmost important sector that ensure food security as of this rapidly growing population. Adding to that, as of June 2023, agriculture sector constitutes around 18.1% of employed Egyptians working in this sector (Galal,2024). Women's contribution to agriculture and rural livelihoods is significant especially in the Egyptian context. However, recent literature suggested that agriculture is increasingly becoming feminized and more into women's hand as result of the increasing number of emigrations of male family members, along with other reasons like death, diseases, and climate change challenges too (Krall, 2015)

There is an international recognition regarding the importance of women in agriculture, which was portrayed in a message in one of the reports from the Food and Agriculture Organization (FAO) stating that "*agriculture is underperforming because half of its farmers – Women- do not have equal access to the resources and opportunities they need to be more productive*" (FAO,2011;3). To successfully battle poverty and advance sustainable development, intersectional targeting is a holistic approach that considers different dimensions of identity and vulnerability (Ramsay,2014).

Integrated Agriculture Interventions Seeking Women's Empowerment

Definition of Empowerment

Before delving into the discussion on women's empowerment, it is important to share examples of how different scholars have presented the definition of the term empowerment to know more about the ground notion of this term and build upon our argument. Some authors defined the term empowerment as a process by which people achieve greater control over their lives (Mahmud et al., 2012; Dukhabandhu et al., 2024; Chen, Liao, and Zhang, 2024).

According to Chen, Liao, and Zhang (2024), empowerment is described as a process of personal change that aids in accepting the process of personal development, independence, and enlightenment. As stated by Dukhabandhu et al., (2024), empowerment also describes the process by which both individuals and groups acquire the ability to access resources and

manage their personal affairs. Furthermore, the broad definition of empowerment is the ability to make decisions for oneself in every aspect of life (Tengland, 2008).

The concept of “empowerment” was frequently used in different fields of social works, health education, nursing, psychological and mental health, and development work during number of years, (Zimmerman & Rappaport, 1988; Narayan 2002; Chamberlin 1997; Tengland 2008). Tengland (2008), proposed that empowerment can be seen as a goal and could be defined in the context of having control over the determinants of one’s quality of life .It is discussed that empowerment is seen as a process and approach that emphasizes the relationship between where the person takes control of the change process of her\his life.

The multifaceted nature of empowerment:

The concept of empowerment is a dynamic and complex approach that is influenced by different social, political, and economic factors (Schüler & Rottach 2010) .Hennink et al. (2012) emphasize the multi-level nature of empowerment, which occurs at the individual, societal, and organizational levels, and then they identified opportunity, agency, resources, and sustainability as key drivers of the empowerment process . Furthermore, Hennink et al. (2012), highlighted that the measurement of empowerment encompasses different areas, including spiritual, economic, health, and social, all of which are interconnected, in contrast with Afridi's 2010 definition of empowerment as the ability to make autonomous decisions, have access to resources, and utilizes them efficiently, and this multi-dimensional perspective underscores the need to evaluate women’s empowerment across various dimensions.

Understanding the dynamic and multifaceted nature of empowerment is crucial for designing effective interventions that promote women’s agency and well-being. In order to understand empowerment, it is crucial to differentiate between several key concepts which are self-confidence, self-esteem, and self-efficacy, Interventions that aim to enhance self-efficacy in some respects can eventually lead to positive and significant impact on overall self-esteem and self-confidence (Tengland 2008; Al-Qahtani et al. 2021) .

To break it down more, having self-esteem, defined as the respect we have for ourselves and others, and a positive self-perception can lead to their overall sense of empowerment. This will influence them to set goals and overcome any hurdles that faces them. Eventually, they learn to navigate their lives confidently (Al-Qahtani et al. 2021; Maggiori et al. 2016). Having self-efficacy, the ability to succeed in specific situations, can foster empowerment through enabling individuals to tackle any challenge and create a sense of resilience and confidence in

their abilities. Self-confidence is the trust of the individual's own capabilities, which empowers individuals to act, take control, make decisions, and be keen to pursue her/his goals (Maggiori et al. 2016). Kapoor (2019) mentioned that women's empowerment means the improvement, and enhancement of the economic, social, political, and spiritual power of women, it thus should require developing self-confidence in their capabilities. As a major component supporting global development efforts, women's empowerment is acknowledged to have a crucial role in socio-economic development (Gram & Worrall, 2019). Economic empowerment, especially for women, is important to achieve the goal of gender equality and having inclusive economic growth. Women's contribution in economic growth varies from different roles; employees, entrepreneurs, farmers, paid and unpaid domestic workers, Nevertheless, the challenges that they face socially and economically on a daily basis tend to result to unequal opportunities and outcomes (UN, 2014) .

Over the past decade, there has been a rise in programs specifically targeting women's empowerment to tackle gender equality (Seymour & Peterman, 2018). Achieving gender equality stands as one of the main objectives of Sustainable Development Goals (SDG) that aim to reach inclusiveness and sustainable growth in all aspects of life by 2030; however, this is a multi-dimensional issue that can be reached differently. The available evidence by Hughes et al. (2015) indicates that women are less prone to generate substantial portions of household income and to have control over or contribute to financial decision-making within the household. These circumstances arise from various factors including gender-based violence, limited or no access to credit or any financial services, inadequate educational opportunities, inheritance, and land rights.

Despite that, women are more likely to work in different fields with unpaid returns, such as domestic housework, caregiving for children or the elderly, and informal jobs such as handcrafts and small-scale agriculture, yet they are not treated equally. They are poor, with no fixed income or no income at all. They also have no autonomy over their households or decision-making power, which is male-headed (Cornish et al., 2021). According to Seymour and Peterman (2018), women are the main contributors to enhanced health outcomes in their households. Women are the primary carers within their societies, responsible for food processing preparation, for the guardianship of their children. So, they have a significant role in the family's health outcomes.

Women's Economic Empowerment: A Transformational Journey

To ensure that all women can fully exercise their economic and social rights, working together to transform economic systems into tools of justice, equity, and wealth is necessary. This calls for offering women the agency and power to challenge existing inequalities and create a level playing field. Fundamentally, it is about ensuring everyone has equal access to, ownership over, and control over their own lives as well as resources, assets, money, and time (Smriti, 2020; Nahar & Mengo, 2022).

Peterson, (2014), emphasized that women's enormous potential as change drivers is unlocked by economic empowerment, which promotes sustainable development, social advancement, and inclusive economic growth. Not only can women improve their well-being, but also that of their families, communities, and countries when they are allowed to fully engage in the economy (Hepworth et al., 2012). Women's economic participation, encompassing both paid and unpaid work, is a crucial driver of sustainable development and a key factor in achieving the 2030 SDG Agenda (United Nations,2024).

However, despite their substantial contributions, women continue to face significant barriers to economic empowerment. Globally, the gender gap in labor force participation persists, with men's participation at 80% and women's at 50% (UN 2024). Additionally, women are paid 20% less than men on average in the workforce. This disparity underscores the need for comprehensive systems to monitor gender-budget allocations, as only 26% of countries have implemented such systems (UN,2024). Addressing these challenges requires innovative strategies and initiatives that move beyond traditional, ineffective approaches to women's economic empowerment (UN,2024).

Integrating women into the agricultural value chain

Aside from raising women's economic standing in their communities, integrating them into agricultural value chains also pushes against gender stereotypes, encourages women to take up leadership roles, and increases societal inclusion and equality. (Quisumbing, 2021; Gelli et al., 2015). Additionally, by providing chances for skill development, capacity building, and access to previously unattainable resources and markets, this integration helps to empower women (Njiraini et al., 2018).

Significant progress may be made in reducing poverty, ensuring food security, and advancing socio-economic development by carefully funding initiatives and policies that prioritize the integration of women in agricultural value chains (Laube et al., 2017; Mirja et al.,

2024). Women who actively participate in this field improve their own well-being and advanced the prosperity of their families, communities, and countries (Prince et al., 2023; Nahar & Mengo, 2022).

Conceptualizing and Measuring Women's Empowerment

A precise conceptual framework is necessary for a thorough understanding of women's empowerment. Over the past three decades, this has been the focus of much theoretical research, leading to a variety of definitions and methods of assessment. Even with these differences, many essential elements become apparent as being vital to understanding empowerment. Taylor & Perezniето, (2014) further emphasized that firstly family dynamics and household differentiate women's empowerment from the empowerment of other marginalized groups, highlighting the unique challenges and opportunities that women face within the context of their families and communities.

Secondly, Yount et al. (2016) highlighted that having the ability to make decisions and act upon them is a fundamental aspect of empowerment, which encompasses not only the freedom of choice for but also the agency to implement those choices and exert control over one's life. Thirdly, empowerment is a process that evolves, according to Garikipati (2013), due to the prolonged nature of the empowerment process, appropriate measurement tools must be adopted. Understanding the dynamic nature of empowerment is crucial for creating interventions that are effective and tracking progress.

Previous studies further identified limitations in those existing measurement approaches for women's empowerment, showing that these limitations can be the reason to hinder efforts to understand the causes and consequences of low empowerment levels (Carlson et al. 2015; Richardson, 2018). Improving these strategies is an essential need to understand this concept and the evaluating progress.

Micro Credit Programs in the Global Context Vs in the Egyptian Context

Microcredit and microfinance programs are greatly debated to have the ability to alleviate poverty and enhance development. According to Isangula (2012), the most successful story in this topic was the introduction of Grameen Bank in Bangladesh by Mohamed Yunis in 1976. It was proven to be an effective tool against poverty and a catalyst for improving the socio-economic conditions of those previously excluded from the banking system due to their financial status (Yunus, Moingeon & Ortega, 2010), grabbed worldwide attention.

Since then, this successful initiative has been widely replicated in many countries in the developing world and was mentioned by the United Nations (UN) as a significant contributor to the process of achieving the goal of halving extreme poverty by 2015. There are different developing countries adopted the microcredit programs, in which Egypt, which was through their strategy to alleviate poverty. Isangula (2012), stressed that microcredit programs were originally represented as a key tool for empowering women and fostering equality in vulnerable societies not only to ease poverty .

The program empowers women farmers by providing access to a wealth of agriculture information and resources, through accessing farm field schools, they were disseminated with the latest information regarding cropping, cultivating, and harvesting, and they were able to know innovative irrigation techniques and best practices and all of these falls under the umbrella of Agriculture extension services, which helps in fostering deep understanding of sustainable farming and help women to be fully equipped and ready with the tools and methods to thrive in the changing agriculture field and bridge the gap between men and women in these communities .

These practices mentioned above helped women to be empowered to make better decisions, improve their yields, and help contribute to the overall food security chain. It also improved the economic well-being of their vulnerable communities through helping women farmers connect with markets, improve their bargaining power, and help in generating income (Care International in Egypt 2020). As a major component supporting global development efforts, women's empowerment is acknowledged to have a crucial role in socio-economic development (Gram et al. 2019).

Village Savings and Loans Associations (VSLA):

The village Savings and Loan fund which is famous as “The Box” within the participants serves as the foundational mechanism for helping beneficiaries to build financial capacity to establish their own projects. Women actively participated in this fund through contributing with a weekly share of money. Subsequently, they receive a loan which is equivalent to three times the amount they invested in the box .

As Isangula (2012) referenced from ADB,(2006), the common type of microfinance that is used in rural areas is microcredit, because it’s an accessible financing services which includes small loans, support the growth of small businesses, or even endeavor starting new businesses. Nevertheless, these small loans or microcredits can easily pay it back in agreed

time frame. This time frame can be a monthly installment, or weekly, or in some circumstances they are paid daily.

Isangula (2012), revealed that women who are poor and socially disadvantaged and especially ones who are in rural areas benefit from microfinance services. This results in empowering them, contributing to financial system growth and enhancing their overall development.

Women's Empowerment Impact through Integrated Agriculture Interventions:

A) Women's decision-making power outcomes:

Heckert, Olney, and Ruel, (2019) defined women's empowerment as a woman who can make deliberate choices and practices independently. Multiple factors influence women's decision-making power and impact women's health. A qualitative study that examined women's decision-making power conducted in rural Ethiopia through a focus group found that women's health status was positively affected by their education, birthplace, and the number of siblings. Additionally, educated women are valued more by their husbands, who see them as well-equipped to handle household income decisions (Bilisuma Dito, 2015).

Furthermore, a woman can communicate with her husband about her children's nutrition and health needs and has the autonomy to set her children's priorities and desired needs. This will ultimately result in positive and promising child health outcomes (Sinharoy et al., 2018). Conversely, there is extensive evidence that shows women's economic empowerment increases spouses' respect and household autonomy and respect in their communities too, as a result of contributing noticeably to their family's incomes. (Agarwal 2020).

Öberg (2015) also stated that women who can make family planning decisions are most likely to positively impact child nutrition. These decisions come from mothers who optimize birth timing and achieve the desired family size, which affects the decision to increase the degree to which resources are distributed among the children.

B) Decision-making power and health outcomes

Seymour and Peterman (2018) presented the notion of women's empowerment and its definition by mentioning that empowering women means allowing them to participate in different and vital decision-making matters. This includes decisions such as personal health care or significant household purchase decisions. Women who have restricted decision-making within their family through various practices such as access to resources, health decisions, and

spousal relationships were shown to have a significant effect that links those types of maternal autonomy to achieving optimal childcare status, good and enriched nutritious system within the family affect their children (Shroff et al., 2009).

This implies that programs that empower women through social support and a rights-based approach are the pathway for achieving the impacts of the nutrition-sensitive programs that aim to enhance better nutritious status for children. Several studies that focused on women's decision-making process in different aspects of their households related to child feeding in rural areas have significant input associated with higher nutritional value and, in return, good health outcomes for their children (Bilisuma Dito, 2015). In a study made by Berti et al. (2004) that reviewed integrated agricultural interventions and wanted to understand the routes through applying a sustainable livelihoods approach and how agriculture interventions could affect nutrition, The review showed a considerable outcome related to nutrition, which acquired from changes in diets of the people participating in these projects, and apparent changes in nutrition status in which nutrition education and capital investments too.

C) Agriculture intervention impact on Women & Child Health in Burkina Faso:

A randomized control study that was conducted in Burkina Faso to evaluate the implemented gender-sensitive homestead food production/Agriculture program that has nutritional objectives showed that having a well-designed program can have a significant impact on women's empowerment and nutrition and health outcomes among children (Olney et al., 2016).

Helen Keller International implemented the intervention in Burkina Faso, and Nutrition and gender-sensitive agriculture program for Enhanced Homestead food production aiming to improve children's nutrition conditions focusing on undernourishment and stunting using agricultural resources and behavioral change communication strategies by employing agricultural activities to serve as an arm for women's empowerment to implement the program's expected inputs (Nielsen, 2018).

Heckert, Olney, and Ruel (2019) explained the program and its impact on women's empowerment; it was expected that applying the objectives of the Enhanced Homestead Food Production program (E-HFP) would help in serving as a basis for this type of empowerment through increasing women's allocation of resources in their homes in favor of their optimal nutritional intake and health practices for Her and their children.

The program objective was to improve maternal care and child nutrition status by targeting small-scale agriculture and increase nutrient-rich food production, first having agriculture training and inputs on what tools to use and what seeds to plant, in addition to BCC programming to adopt the maximum practices in health and nutrition, Second, activities that are community focused on developing land-use agreements to endorse women's access to lands for agricultural purposes (Nielsen, 2018).

Heckert, Olney, and Ruel (2019) examined the different domains of women's empowerment such as purchasing power, healthcare decisions, family planning decisions, and spousal communication. Women empowerment program's enhanced health outcomes among children who were three to twelve months old at the start of the program resulting in increased hemoglobin levels.

D) Agriculture intervention impact on Women & Child Health in Zambia:

A cluster randomized nutrition and gender-sensitive agriculture development Programme implemented in Zambia; The Realigning Agriculture for Improved Nutrition (RAIN) project was designed to achieve the objective of improving under-nourished children. The project utilized integrated agriculture divergence for improving access to nutritious food, gender-equality promotion, and women's empowerment. This is to achieve enhancement in young and infant child feeding practices and knowledge. On the one hand, the intervention played an agrarian role focusing on producing food out-of-house farming practices to increase the accessibility of nutritious food. The objective is to encourage diversified dietary in these households. On another hand, the intervention is to focus on women empowerment and gender awareness (Kumar et al., 2018).

A study by Girard et al. (2012) assessed the potentiality of agricultural projects through improving home-made food production. Its promising results to help in developing health and nutrition status for women in their reproductive age and children as well. In the agriculture intervention, the project's objective was to focus on home-based farming and providing families with high-nutrient vegetables. Diversified nutritive seeds were distributed to them along with several trainings and tools to use for local women's groups created by the program. The project also included poultry and small animal elements in the intervention model and special animal husbandry training for income-generating practices (Kumar et al., 2018).

Masset et al. (2012) reviewed different effects of agriculture intervention on income by reviewing studies complementing the positive effect of these interventions on income from

home-gardening production. However, analyzing that measuring this effect is vague, by mentioning the substitution effects in production are likely possible. One source of production may increase, and others' income can decrease if households shift, for example, the labor amount from farming to home-gardening. On the contrary, Masset et al. (2012) reported a significant positive effect of the interventions by five studies on the total household income.

Different assessments involved several literature reviews of evidence from Africa and Asia that interlink sufficient home gardening and having a homely-made animal farm to improve the nutritional status of those households (Girard et al., 2012). The program established a small-holder model for farmers and women groups to get the training to empower those women and implement the objectives of this intervention. This resulted in benefiting women and children, and it significantly impacted food production through diversified agricultural activities and increased incomes from the vending of food.

A similar study made by Kumar et al. (2015) showed the positive impact of women's decision-making power in finance and agricultural interventions. The effect on the access and control over women's assets and the significant improvement in their finance and power. However, the intervention's impact on child's health, dietary and the improving of household impact, has no effect and was insufficient (Kumar et al., 2015).

One of the main constraints of achieving only some of the program's objectives was that some women complained about the long distance they had to travel from one district to another to attend the training. Others complained that due to the meetings they had to attend, they had no time to finish their house chores, and others had no sitters to attend to their children while leaving for the meetings. Therefore, these are reasons for low participation rates that should be considered while designing such a program in the future (Kumar et al., 2018).

Another program was studied to tackle the importance of women's critical role in agricultural projects and how it is increasingly recognized in the nutrition-sensitive area. Moreover, they agree with the arguments mentioned above. However, women are the key players in the food system; they are disempowered in control over their resources, have no control over income, and need more leadership in the community. Agricultural production diversity is linked to dietary diversity. Women's empowerment is associated with dietary diversity, which indicates that dietary variety will be weakened if women's disempowerment and agriculture are also affected (Sraboni et al., 2014).

Sraboni, Quisumbing, and Ahmed (2014) added that if all these rationale observations, are combine, it can be concluded that any intervention that consists of agriculture and nutrition, either separately or additively, will affect the nutritious outcome. Also, if gender training were added to the equation will shape these effects.

Chapter 4: Contextual Framework

Integrated development approaches in the Egyptian Context:

ENID Program was one of the integrated development approaches examples that was successfully implemented in rural communities especially for women with unfortunate circumstances, this program used the concept of integrated approach which utilizes a full method that combines economic, social, and environmental development to improve the quality of life for vulnerable people. ENID's objective was to empower disadvantaged women and youth too in rural upper Egypt through various skills development and job creation (El Baradei & Elwy, 2023).

The Egypt Network for Integrated Development (ENID) as demonstrated by Chopra 2018, work on different projects that collectively contribute to integrated development through focusing on creating viable and sustainable employment opportunities in Upper Egypt through several and multidimensional means:

First this program works on upgrading basic services through enhancing essential services such as, healthcare, education, and infrastructure services in rural communities.

Second, the programs work on promoting medium, small and micro enterprises (MSMEs) and entrepreneurship projects through supporting local businesses by supporting and granting training, resources, and financial assistance to boost entrepreneurship and economic growth.

Third, the program also works on improving agriculture sector practices, enhancing productivity, and ensuring food security in Upper Egypt.

Fourth, ENID engages in research, knowledge sharing, and policy advocacy to drive positive change in the area (Chopra 2018).

This integrated development approach is being implemented in our case study, which works with an integrated socio-economic-environmental approach that helped in enhancing beneficiaries' quality of life and pull them out of poverty.

The coming part of the literature review will review past evidence on the effectiveness of this types of interventions. This will complement and expand previous reviews of links between integrated agriculture projects and their effect on nutrition, decision making power and household autonomy, and health outcomes. Meanwhile the review will compare with

previous analyses, this part will be more systematic and focused on interventions that target women economic empowerment and its effect on the overall better life quality.

Agricultural extension services

Agriculture extension services are the services that were designed to offer knowledge to rural communities for the sake of improving the lives of farmers, through which increasing their yields and production process (Buehren et al. 2017). According to FAO's definition of agricultural extension services, it provides technical guidance to farmers and furnishes them with the essential inputs and services to support their agricultural activities. Essentially, these types of services disseminate information and introduce new ideas that are developed by agricultural research stations. However, these services frequently fail to adequately address the specific needs of women and farmers and look into their circumstances (FAO 2022).

Corresponding to Jack (2011), these types of services aim to overcome the information barriers that constrains technology adoption. This is the main reason for low profits and perceived high risks. Ogundari (2022), showed that agriculture extension services made to farmers have proven positive effects and impact the outcomes of farm income, productivity, and new technological adoption. There must be restructured policies to inspire more changes in the agriculture sector in the global context. Adding to that, Buehren et al. (2017) stated that having access to agriculture extension services helped in the transition toward more commercially oriented agriculture. Further working on enhancing those services will have a favorable impact on households' economic participation, enhancement of the cultivated land area, and the adoption of marketable crops. Nevertheless, female-headed households benefit from these services through the programs that allow them these services.

Jack (2011) mentioned that there is a growing body of literature that examines the positive impact of transmitting information to farmers. This happens through social learning, it helps in circulating the information within individuals' networks. A study was conducted by Leta et al. 2018 to further understand and assess the impact of social learning on the indirect beneficiaries of agriculture extension services. The findings showed that social learning had a greater impact on smallholder agriculture.

Based on the results of a study made on Ethiopian agriculture and rural development, informal social learning helps in facilitating the adoption and spread of technologies which was promoted through formal learning systems. It works when less educated farmers learn from their educated colleagues, which interestingly shows that the interaction between farmers who

have direct access to technology inputs as educators and those without access as the learners benefits the group (Leta et al. 2018).

Field schools serve as a tool within agriculture extension services, which helps in providing learning opportunities and empowering farmers with essential skills to make them grow in the agricultural sector.

Farmer Field schools

Farmer field schools are schools that present a participatory learning environment. Farmers collect themselves in a field setting to gain knowledge and new skills related to agriculture. These field schools are a type of method within the agriculture extension services, focusing on hands-on learning, and helping in allowing farmers to engage and participate directly with their natural resources, livestock, and crops as well (Osumba et al. 2021).

Abdullah et al. 2014, added that the field schools' features are a group learning process in which farmers learn together in a collaborative environment while sharing experiences, asking questions learning from each other, and eventually observing different scenarios. The schools mostly align with the agricultural calendar and help in addressing specific tasks and challenges faced by farmers during their planting, cultivating, and harvesting process. These sessions are often led by experienced farmers and always provide expert guidance.

Different topics are being discussed in these schools, such as crop management, soil health, pest control, water preservation, climate-smart practices and the newly sustainable practices (Osumba et al. 2021). Hong et al. 2021, discuss the benefits of field schools which allow farmers to gain practical skills that can be applied to their farms, and utilize their participation in learning to diagnose an issue and improve farmers to make informed decisions.

Abdullah et al. 2014, highlighted that field schools cultivate community structure, networking, and knowledge exchange, and lead to empowering farmers as they become more self-sufficient and confident in managing their agricultural activities. Eventually it helps empower rural communities as it is a powerful tool to enhance their agricultural practices (Hong et al. 2021).

Chapter 5: Methodology

Study Design

The study employed a qualitative, exploratory case study approach. This facilitates a comprehensive understanding of complex phenomena within real-life contexts. In-depth interviews were used to elucidate theoretical concepts drawn from the literature. Qualitative data from in-depth interviews were collected from a representative case. In-depth semi-structured interviews were conducted with key stakeholders at CARE Egypt, field experts, and program beneficiaries. All the interviews were recorded as audio files on the researcher's laptop with a password, using anonymized serialized codes to secure the identity of the interviewees. All these interviews were conducted in Arabic and later translated to English while the transcription process and the transcriptions were also saved on the researcher's laptop with a sealed password.

Content Analysis

The horizontal content analysis focused on the impact pathways, providing insights into the implementation and outcomes of interventions from the perspective of participants. By examining the changes that occurred and the underlying mechanisms and reasons, this analysis offers a deeper understanding of the programs' outcomes. The researcher relied on CARE Egypt data base as well. The analysis will address critical obstacles and facilitators encountered, sustainability challenges, potential solutions, and significant synergies observed across the primary pathways. In line with a study by Kjeldsberg et al. (2018), limited qualitative research has been conducted to explore the mechanisms through which gender-related dynamics either facilitate or hinder predetermined pathways from agriculture to nutrition. Gaining a contextual understanding of these dynamics is especially crucial for programs, particularly in South Asia, where women's empowerment levels are recognized to be low, that aim to enhance women's status, agricultural productivity, and nutritional well-being simultaneously.

The researcher found that this topic needs more research, including deploying methods that include focus groups with interview guides, observations, and analysis of the program and participants' outcomes (Kjeldsberg et al., 2018)

The Sample

The sample for this study consisted of 25 participants, including 5 key informants from Care Egypt, field experts and 20 program beneficiaries. To ensure confidentiality, all names have been pseudonymized. The geographical areas in which the women of Beni-Suef were interviewed (Ezbat Galila, Beni Qassem, Sharif Village, and Goombes), and the area in which women of Behira were interviewed was in Abo-El Matameer.

The table below shows the list of the research participants.

Table 1:	
Name	Title
Dr. Hana	Program Director, Agriculture and Natural Resources Care Egypt
Mr. Hassan	Project Manager Care Egypt
Ms. Manal	Consultant for agriculture program projects and is responsible for (Aysheh Bekhirha) project in Beni Suef
Dr. Yousry	Rural Sociology - Human Development & Economic Department- Faculty of Fish Resources - Suez University
Ms. Laila	Savings and Loan Coordinator for the Aysheh Bekhirha program in Behira
12 Beneficiaries from Beni Suef Governorate (Women)	
8 Beneficiaries from Beheira Governorate (Women)	

Features of the Sample: The geographical areas in which the women of Beni-Suef were interviewed.

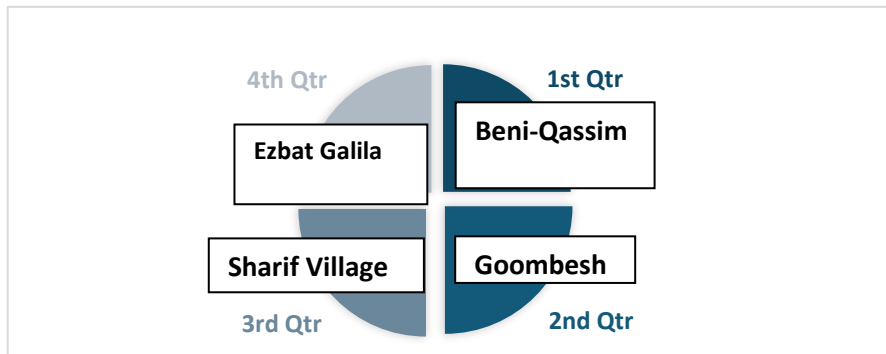


Figure 2: Areas of Beni Suef Governorate from which the women were selected

Work, Age, and social status

In terms of women’s employment status, the program has had a noticeable impact on their work situation. It transformed their spouse’s attitudes, leading to a greater acceptance of their women working outside their home. Adding to that, the program fostered and added a new culture that recognizes women’s abilities and helped in contributing to the improvement of the overall family well-being. Pre-program, women in Beni-Suef were primarily restricted to house chores only, but after participating their opportunities has expanded, and this situation was the same for Behira women, but Beni-Suef was more reserved. Across Beni-Suef and Behira governorates, women were of similar reproductive age and had different marital status, (married and divorced) and both with children.

Educational status

50% of respondents in Beni-Suef have received education, of which holding primary certificates or intermediate qualifications (diplomas), the remaining 50% have no formal education, however, one of them is currently pursuing primary level school.

Sampling Approach

The first sample consisted of 8 respondents from El Behira governorate, including women who participated in the program and other individuals involved in the implementation process. The second sample, from Beni Suef, included 13 respondents, comprising both women and implementation team members.

Two sampling methods were employed. Initially, we used a purposive sample, selecting 5 participants. Our cohorts included representatives from CARE Egypt, NGOs, and policymakers. Subsequently, we utilized the snowballing effect for the second cohort, reaching

out to women participants in the “Aysheen Bekhirha” “She Feeds the World” program through referrals. This approach allowed us to gather deeper and more diverse data. In total, 20 beneficiaries participated in the in-depth interviews.

The first 5 participants were identified through mutual colleagues. However, the remaining 20 beneficiaries were first approached in Behira Governorate, followed by participants from Beni Suef Governorate. These referrals were made by CARE Egypt directors, considering the sensitivity required when conducting interviews with these women.

Data Collection

Before each interview, all participants were given all information about the study, their background, and how the data will be used in the future. They were assured confidentiality and were given consent forms to sign; they were also allowed to withdraw at any minute. They knew that the interviews were being recorded. The interview duration ranged from 30 to 45 minutes maximum, with a chat break. Participants were offered debriefing sessions to address concerns, ensure their well-being, and be assured of their autonomy. However, some interviewees agreed to share their names and titles. Some program participants from Behira governorate agreed to share their names and wanted to put their names in the research, in the contrary to Beni-Suef’s participants, they did not want their names to be shared. Interviews were concluded between May 2024 and June 2024 after the acquisition of the IRB approval.

Ethical Considerations

The main purpose of conducting the interviews was to gather a comprehensive range of responses from participants to encompass all dimensions of the research while addressing the gaps in the existing research literature through their firsthand contributions.

Each participant was informed about the interview’s purpose and had signed the pre-prepared consent forms. They were also made aware that their responses would be recorded and transcribed for research purposes, and they all agreed to these terms. Most of the twenty-five interviewees were open to having their full names and job titles mentioned in the study. The researcher adhered to all ethical standards associated with research. Furthermore, it was explicitly communicated to all twenty-five participants that their provided information would not be used against them or for any other purpose by the researcher.

Data analysis

All data collected from in-depth interviews were analyzed using coding practices of the qualitative research. Adopting deductive coding on the analysis of the transcribed data, and then after coding the interviews, comprehensive inductive themes were developed. This is consequent from the literature and based on the data gathered and the material collected during the interview process.

Research Limitations

Conducting research comes with inherent limitations, and in the case of the Aysheen Bekhirha program in Egypt, several limitations were identified. The most pressing limitation was time constraints imposed on the researcher, which affected both the depth and breadth of the study. The researcher had a limited time to complete the investigation, which curtailed the ability to engage thoroughly with participants and gather extensive data. Furthermore, this constraint led to the inability to conduct further interviews that could have enriched the data set and provided diverse perspectives on the program.

The researcher relied solely on primary data collection methods, which involved direct engagement with individuals who have firsthand experience and insights into the program. Without secondary data, such as academic articles or existing reports, the entire body of researched content was heavily dependent on these primary sources. This reliance underscores the challenges faced in exploring programmatic outcomes where confidentiality and a lack of prior literature limit access to comprehensive information.

The investigation revealed a distinctive gap in the literature related to the Aysheen Bekhirha program in Egypt. Notably, no previous scholarly work had been undertaken on this specific program, which signifies a significant void in understanding the implications and effectiveness of such interventions. The identification of this gap is important, as it paves the way for future scholarly inquiry that can explore the intricacies of the Aysheen Bekhirha program and offer comparative analyses with similar initiatives.

Another limitation encountered by the researcher involved interviewing women from conservative communities, who were not often hesitant to open up to a stranger. This reluctance impacted the quality and depth of the information gathered. The participants were particularly cautious when discussing sensitive topics, such as their new projects, spending habits, and child behaviors information that is typically not shared within their communities.

Chapter 6: Data Analysis

This paper used qualitative analysis to analyze respondents' data regarding the impact of integrated agricultural interventions on rural women. The sample was chosen from women beneficiaries from "Aysheen Bekhirha" program, which operates in three Egyptian governorates: Behira, Beni-Suef, and Minya. Two governorates were chosen for the data collection study, Beni-Suef Governorate which represents Upper Egypt and Behira Governorate represents Urban Lower. The interview data showed seven main themes which are:

- 1) Educational Empowerment
- 2) Financial Inclusion and Economic Empowerment
- 3) Improved Nutrition
- 4) Agricultural Training and Capacity Building
- 5) Sustainability of projects
- 6) Social and Economic Impact
- 7) Quality of life

6.1 Educational Empowerment

During the data process, there were a common sense of regret over lack of education, highlighting the importance of education. Almost all of them regret for not completing their education and even emphasized the need to educate their children. This by itself underscores the project's role in promoting educational values and long-term and sustainable empowerment. That was made clear when one of Behira participant expressed her strong desires for assistance in pursuing education and that they all wish someone once encouraged them back then to complete their education.

In this quote, Nora from Beheira, was expressing her feelings and regrets about not being able to finish her education. She was willing to pay and invest more in their children's education so that they did not be like them and have any obstacles that hinder their future life:

"We whoever finished education level to preparatory, wished we didn't leave school, we are now regretting not completing our education". Then she added, "We send our kids to private lessons, nurseries and we spend money on them, BUT in our days, there wasn't anything". Then **she** was asked if she has girls, and she replied, *"no I have three*

boys” and then was asked whether she would let them finish their education, she agreeably replied, “*Yes Definitely*”.

All women were very keen on the notion of educating their children. They were affirmative and have strong visions for them. They know quite well the social, and economic barrier that an uneducated person can be put through her\his background. That was strongly noted when they were asked whether they will let their kids complete their education journey or not.

Behira’s participants were asked how many kids she has, she answered, “*Two boys.*” Then she was asked if she had girls or not and she replied “*yes*”, so she was asked whether she would let her daughter complete her education to university level and she replied hesitantly “*If God Will*”. She is brilliant and disciplined, but her tone of voice is shaky and not affirmed. And she added that “*Honestly our way of education here is all Hitting*”.

Nora added in a loud, affirmative voice “*I am a woman, and I regret not finishing my education, I took the preparatory phase and then I dropped out, that is why I am regretting, so I will not do it again let alone with my SON*”. In addition, **Safiya from Behira** added, “*I am regretting not being educated, I was never educated, I didn’t find anyone to educate me, so All I want that my kids will get an education*”.

All of the previous quotes lead to observations highlighted by those women lacked a conducive learning environment in their past, and that they were regularly stressing and expressing about their desire for earlier education opportunities, and that is why consequently, women were highly motivated and encouraged to ensure giving good quality of education for their children. Additionally, their educational background served as a motivating factor for them that made them super active and engaged in the program’s lessons and sessions, they felt a strong sense of responsibility to improve themselves and become better individuals in their community as they felt someone came to lighten up their world at their doorsteps, so they took strong advantage to feel proud of themselves and in front of their husbands and kids.

6.2 Financial Inclusion and Economic Empowerment

The project’s optimal objective was to empower those women economically and enhance their financial literacy status. This is implemented through various aspects, distinguishing between loans, effective home budget management, and project management

strategies. This is to further excel their careers, generate more income and reach the goal of economic empowerment.

“We teach them how to save money, how to prioritize their spending, how to budget their home, how to differentiate between a good loan and a bad loan. Is it beneficial to take a loan to pay off another loan or not?”, Ms. Manal, Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suef.

She also highlighted,

“They learned how to make the agricultural agenda, register, and calculate their earning needs. In the past, when you used to sit with the male farmers and ask them, did you earn? he usually replies I don’t know. However, after the program, all the practices can be recorded whether he profited or not how much the process coted them, they more organized and can manage their harvest, crop management in an organized way”.

In the previous quote, the participant indicates the process of the project to promote Women’s economic empowerment and financial independence. This is through paving the way for them to access the resources needed. Cultural considerations and social factors are taken into consideration in order to mitigate potential family challenges and better shape their standard of life.

It was noted that women’s financial independence was impacted after the program was implemented. For example, Nora from Behira highlighted, *“yes, for me I opened a detergent project and took a loan from (Madam Safaa) from the BOX, and “Thankfully, I made a detergent project.”* She was saying it with a prideful and happy tone and stressed that the project is really good for her. In this quote, the participant was telling about her project that she initiated after getting money from “the BOX” which is a fund facility box that let women put money in a weekly basis and then can collect this money as a loan for any personal matter. She was happily telling us that the project is a success, and she can see the difference after the project regarding income generating. Nora decided to open a home-based project that is family friendly and easy for her to manage. She can easily have access to the material of the products she wants to sell. That was a common factor in Behira Participants, all their project are home based and easily accessible.

It is good to mention that these private projects were as follows; **Nora** has soap/detergents project, **Wafaa** has poultry project, **Safyaa** has shoes project, and she sells frozen fish in the market too, and **another participant** has goat breeding project. This aligns with what Fasial (2021) indicated regarding the mobility restrictions women face due to social and cultural norms. This can limit the impact of their business choices, which leads those women to prefer home-based work in specific niches. However, microfinance associations have played a crucial role in addressing those challenges with considering social factors when granting loans to women entrepreneurs.

One factor to reach this empowerment ladder is to give those women the tools to be able to work, grow, and generate their own income. This can happen by facilitating for them credit services through the Village Savings and Loans Associations (VSLA) referred to as “The BOX”. This enabled those women to build financial capacity through weekly contributions and access to loans. This type of inclusion is crucial and important for starting and supporting income-generating projects.

In these following quotes, participants highlighted the importance of financial literacy teachings. They learned the Savings and lending methodology, financial literacy, trainings in the importance to enhance their economic empowerment and how to invest their money in their credit facility which is “The Box.” They were explaining how hard they were grasping all of these teachings and how hard they would apply it. After few months, they felt that they could use these teachings and techniques to apply them in their small projects. They can benefit them in real life, not only attending classes. They even stated that they are now aware of their budget estimations and know how to handle their financials wisely. This turned to be beneficial for them and their households.

“It was hard to know these topics before”, “We were afraid to take loans or borrow money”—Behira Participant

“We learned about feasibility study, which was part of the program’s methodology, I have learned to see the competitor, what the market is asking for, how much my limited capabilities, and what my profit becomes”. --Beni-Suef Participant 1

“We learned to estimate and manage our budgets, I am now able to see if the budget is enough or not.” --Beni-Suef participant 3

The efforts made by the program's objectives as to teach those ladies the difference between good and bad loans. This is basically the level of investing with these money is the key pointer whether it is a good and a bad money and what did she do with the money.

“We took the difference between bad loans and good loans, explaining that a good loan is a loan in which she invested money in her poultry project to generate income, but a bad loan is an example of taking money and wasting it with no profit so no benefit.” “Adding that without the collective savings the BOX loans they would not have gotten anywhere, or even have the money and resources to open these projects.”—**Wafaa Behira Participant**

In the following quote, a participant was stating the importance of loans and the positive use of it. Back then, they considered loans as a disaster of any household. She explained it as an expert that investing our money collectively will eventually get profits to us and will enhance our income. Prior to *the box*, the women would have never opened any project or even save money. Mr. Hassan affirmed while saying that the main aim for this process is to promote the sense of women supporting each other. This creates a sense of harmony to enable them to ease into the community with helping each other. Before, each and every one of them was locked in her house and only doing chores and talking and that is it.

“The purpose of those women to participate in the project is promoting the idea of solidarity by supporting each other and being able to make money together. Thus, they help each other, help themselves, and have extra money, and they can start small projects and also help their family if they need help” -- Mr. Hassan Program manager of Aysheen Bekhirha program

This affiliates with the suggestion of Isangula (2012), that when women receive the proper support for starting their local businesses, and when they are allowed to learn about finance and work on improving their health, it often leads to a better, significant impact on their overall well-being.

As the program specifically targets women farmers to provide them with trainings, financial resources, and access to markets, all these was done by learning how to manage agricultural projects individually. Meanwhile, the program provided them with a special income that achieves financial independence and then influencing women's awareness of their role and their ability to improve the family's standard of living. This was emphasized by participants when a lot of cases generate income and profit one way or another, they tend to help in their households. They helped their husbands, spend on their kids more, and even spend

more on themselves if they have excess. They often felt a sense of empowerment that they are generating their own income and can have an actual influence on their homes.

Participants are accepting the new idea of participation and alleviate their status. They should support their spouses and help in their houses. She is saying that now she has her own money and can do and buy whatever she wants. However, she decided to help and get her kids whatever their dad cannot afford. They were sharing this information with pride and joy as they sense a self-worth and that they are part of the household.

“When the project became bigger, I get more things, like for example, if there is something missing I get it in my home.” -- Nora Behira Participant

“We now help with him”, “We help him and participate with the income”, and “We helped him with income, and he also helped us with his support” -- Beni-Suef Participant No.1, No. 4, & No. 2

The sense of empowerment that was sensed in those women was amazing. Economic empowerment not only impacted them, but also enhanced their household status. Their children’s needs were satisfied now. The sense of participation in their home and feeling their autonomy given to them was really important to be tackled.

These women dreamt of so many things, but out of tight financials they did not get it. After they had their own money, they sensed the empowerment to get whatever they desire and even for their kids too. They all felt strong and needed and the decision power. They can even say okay you have no money, but I do, and I will get that. That what was felt during the interview.

“I used to dream of getting a lot of things, but I used to get ashamed to get because my husband’s financial situation was not well to ask for it, so I was silent.” “But now, I get myself whatever I want, with my own money, and get my children’s needs too.”

“Now I can get clothes for myself, now I can get it, and get to my children too if they need lessons I continue to give, I PAY.” -- Nora Behira Participant

“When I used to ask for money for the private lessons for the kids, the husband would get angry, and it affected my mental state, that I don’t have any money

and my daughter want to buy something, I need money for lessons too, but now I have my money, and will not tell him give me, give me.” , I feel like I am stronger with my money.” If there is something missing or needed in the house I complete it.” -- Another Behira Participant

Seeing all these testimonies can state that having economic empowerment can affect those women’s lives in so many aspects. Offering them good financial learning and access to adequate resources can eventually get them somewhere. Consequently, this will elevate their family’s status.

6.3 Improved Nutrition

The testimonies and quotes presented in this study offer insights into the program’s impact on participant nutrition. While these individual experiences highlight potential improvements in health outcomes for participants and their families, it is important to note that broader conclusions about improved health cannot be drawn from this limited sample.

The following quotes emphasize the importance of the program’s goal to enhance nutritional outcomes and how establishing a healthy diet habit in these communities will eventually lead to better health outcomes and tailoring these classes impacted those women greatly, for example, **Nora Behira Participant** highlighted the importance of doing healthy dishes with budget friendly ingredients *“If I have one kilo Meat and I have a lot of people, I can do a Burma Tajjn, I can do Hawawshy and make from it a large dish”*

“We do something called an educational kitchen. They took nutrition sessions in theory and practically, and they loved it very much” --- Ms. Manal Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suef

“Aside from the nutritional sessions that we give to those women, we will add to them a new handbook called “Educational kitchen” which will practically do all the nutritious recipes they took in those sessions and will add some interactive in it, whether they take a picture of it and show it to us next class or even let us eat from it, so we can create a sense of fun in those educational process”, and adding to that “all these recipes are designed to be accessible and handy for them to do it and also be on a budget.” .”

--- Ms. Laila Savings and Loan Coordinator for the Aysheen Bekhirha program in Behira

“We encourage participants to attend with their families as a family activity to those nutrition classes and educational kitchens that exist in every community with their tools, and cooking is done there with facilitators and with a nutrition consultant”. -- **Dr. Hanaa Program Director, Agriculture and Natural Resources**

“We had so much fun in those cooking classes and learnt a lot, like how to preserve meat in a proper way, how to use it wisely to be able to serve the whole family.” -- **Wafaa Behira Participant**

Here we can see Behira participants were talking enjoyingly about these cooking classes and that it was very beneficial they knew new things about preserving, cooking with new recipes and how they can create meals, good and tasty ones with only one or two ingredient and also have the nutrition aspect, and we can see in these communities these kind of teachings and way of thinking was never there before and that it is a stride itself to see them talk in this language and be aware of these kind of things.

Another aspect that was tackled in this objective was the relationship between healthy diets and children’s health.

“We learned the importance of breakfast for our children, I used to leave my kids till noon just snacking without actual food until I finish cleaning and cooking lunch, but NOW it is different I learned that breakfast is essential, and it is the most important meal, and I applied these teaching with my children” -- **Nora Behira Participant**

Here we can see the participant was highlighting the importance of learning new nutrition habits and breaking the cycle of their mothers regarding breastfeeding\ baby food what the baby should eat and not to eat in their first year, and also what are the most important components that should be taken in their children’s diets.

Most of Beni Suef emphasized that they learned about the first year of baby diets, not to eat honey, not to eat solids until six months, and also presenting Milk, eggs, and beans are essential for their children’s meals.

“It is my first time that I learned that honey is forbidden at the first year of the baby, my mother in law fed my boy when he was three months old, rice with soup.” -- **Beni Suef participant No. 1**

“Now I am keen to introduce to my kids in breakfast their daily eggs and I cut all the unhealthy snacks like Chips and candy to build them strong.” -- Beni Suef participant No.4

Those ladies were demonstrating and sharing their new information about healthy diets, most important meals, and the importance of some kinds of food for the development of their kids and how they are now stating that they are aware that anemia, stunting, and malnutrition can affect their children’s lives and that they can prevent them just from their kitchen and good meal planning.

And that was a solid proof that these teachings impacted those women greatly and we can see the instant significant impact on them, which will eventually create a healthy chain in these communities.

6.4 Agricultural Training and Capacity Building

Aiming to provide agriculture training help those women to better enhance their farming skills, which will lead to increase their productivity and sustainability too, and those trainings are important for the sake of improving food security and economic stability in rural areas.

“CARE’s agriculture projects help work in the agricultural sector to be more resilient to economic and environmental changes and prepared for climate justice in the field of climate and economic empowerment by increasing the economic capacity of participants and obtaining food, water, and nutrition security. There is another goal of about a thousand potato farmers (because PepsiCo is the owner of the Chippy factory). Potato farmers and farmers improve production capacity through farmer field schools. We also work with health units and give them equipment so that they can serve the communities in which we work”. -- Dr. Hanaa Program Director, Agriculture and Natural Resources

This previous quote stresses on the project’s main objective which are by making the agricultural sector more resilient in the face of economic and environmental changes, and it will start with women inclusion in the agriculture sector so that economic capacity could be increased and enhancing their lives.

The importance of agricultural trainings especially for women was of great benefit for them and for the whole sector, as Egyptian women always tend to help in lands since hundreds of years, either helping her father\husband\brother or even her son, also some go to daily jobs in lands to take their wages daily to support their families, so utilizing this experience with

technical trainings through Agriculture extension services in order to enable them to grow and shine in this sector was of great impact, and even including them in the farmer field schools, which was only for men in rural communities created a sense of powerfulness and that they are not less than those men.

“I teach them all the practices from the first time she\he receives the seeds until she\he delivers the crop, and what dealings she\he is supposed to do, and that is through the engineers that are available in the Farm Field School” -- **Ms. Manal Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suef**

“Woman could bring food to her husband on the agricultural land or remove the grass from the land only, in contrast to her current situation, where she has become knowledgeable about agricultural affairs in detail. For example, last year, agricultural land sank due to heavy rains, so a group of women was able to solve this problem and save the land on their own.” -- **Ms. Manal Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suef**

Here the participant was referring to the fact that the social shift that happened in these communities after enabling women with adequate information and access to resources like men, they can stride and do wonders, they even can take crisis management actions no matter what to solve their problem. Affiliating with Isangula (2012), stating that empowering women and challenging traditional gender roles can lead to positive changes in society, it will promote equity, leverage human development, and stabilize environmental sustainability.

Gender- inclusion in these communities was really important for the program management and they were taking it into consideration from the very first season of the implementation phase.

“I cannot empower women only because this will make them attacked by others. There must be the involvement of men and boys.” -- **Dr. Hanaa Program Director, Agriculture and Natural Resources**

Here the participant was explaining that focusing only on women will lead her in the attack position as I am taking her from a conservative and closed community and teaching her how to be entrepreneur in a male-dominant sector and even ask her to compete with them farm\sell\ and market for the product, that is why she said that this process should be eased into

those communities and the implementer also should include the other gender so not to feel excluded, and the same way goes with the husbands, the participant insisted in including the spouses in some activities related to farming and trainings first to promote sense of participation and also to avoid household tensions, which is very much common in these communities. And that was declared in Isangula (2012), as for some participants in microfinance programs can in some case results into domestic tension between partners and can lead to spouses losing the support needed which is usually necessary needed.

Introducing women to the agriculture sector in rural communities needed to be done smartly and very wisely, introducing them to farmer field schools teaching and training curriculum which is a service introduced as a tool from the Agriculture extension services by the local government of the governorate that helps in enhancing the agriculture farming sector through newly added teachings and techniques, climate change mitigation processes, seasonal farming, good and environmentally friendly pesticides and land management, while enabling those women to interact with men during these sessions was the core of these sessions, and having these schools mixed is like introducing visually the idea of women being part of the farming process so that they can eventually get used of it and accept it.

“Farmer field schools were conducted in mixed sessions both men and women, we wanted to introduce the participatory idea of women in the agriculture field and then we eased their entrance.” --- **Ms. Manal Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suf**

Here the participant was talking in the context of the program participants attending at the same time with men that are registered in these schools, which will help more in the participation approach with both genders and to introduce new human capitals to the field.

“We were taught in the farm field schools, how to plant, how to choose seeds and remain solid and have a certain size” and “There were lessons in farm field schools in which Professor Muhammad taught us how to participate with our husbands in agriculture, and how each one could have her project” -- **Beni-Suf Participation No. 2**

Here the participant was explaining to us how to prep the land before farming, and what kind of things they were taught in the farmer field schools, and that the gender-responsive aspect that were tackled in those meetings were of great beneficial for them.

Seeing the great effect these schools lead these women too was spectacular they changed completely from not going out of their homes and know nothing about farming to sitting confidently explaining to me what the process of planting is, from preparing the land to everything in detailed and confident tone.

“Look at the beginning, when we started, how to plant the land, how to harvest and even taught us how to examine the soil of our land” --Beni Suef Participation No. 1

“Then we take the land and plant, put the crop and dung it and we return to dung it once or twice and it will be smooth”. Dung is “Animal’s waste used for soil prepping before planting any crop”- Beni Suef Participation No. 1&4

In this quote the participants were telling that they had no idea about farming and that they have never tried to farm before, but now the schools taught them everything essential to produce a crop, and it actually worked, and they became experts, and this indicates that having the proper resources and capacities for a group of people with the different motives will eventually lead to a controllable and significant outcome.

All Beni Suef Participant agreed that they used to stay home and not work at all, but after the program and attending these farm field schools they learned a lot and we benefited from this a lot and now we give advice, we choose which crop we will plant this season, and even some male family members take advice from us.

“After learning all the essential information, we started in the Potato season and we made a great job in the production, and people was very alarmed of the success that we managed as we are only beginners and women too, but we made it” -- Beni Suef Participant No. 4

“After I joined farm field school, my husband now takes information from me” -- Beni-Suef women, Participant No.5

“Yes, my husband now asks me about some agriculture details and information” -- Beni-Suef women, Participant No.4

“We were bullied, cursed from men, and they were a lot of people that were telling my husband, watch out from her, she will lead you to sell your house.” -- Beni Suef Participant No. 1

These quotes were shared in the context of talking about how they benefited from the farm field schools and what was the reaction of the village on that, and all of the answers were that they learned a lot and that they even started farming a piece of land by their own, and that the now she is the one who get asked about some information about farming, or something about the land, and they were proudly saying it and feeling a sense of self-respect after seeing the respect from their male-counterparts or even male family members, they stated that they were bullied by village talks and even get bombarded through her husband about how much she is risking their lives, but strongly affirming that they knew what they were doing, and that it lead to something good after all.

It is worth mentioning that in some cases, disagreements that result from excluding men lead to hindering the implementation of some program activities, as they lead men to imply his opposition to any activity, lack of giving any source of support, or even assistances to women, and sometimes to the extent of doing the efforts to deviate the resources to meet men's demand (Isangula 2012).

These capacity building teachings of the program have improved women's social skills and enabled them to deal outside the home, especially in buying and selling, in contrast to their situation before joining, which was limited to domestic chores and helping their husbands with very simple tasks in his agricultural work.

“The sessions must be divided between women and men”, and she added that *Beni-Suef governorate has the most percentage of female workers (more than 50%), and now some wives teach their husbands about agriculture. Before the program, they were not allowed to leave the house except for the simplest household tasks “.* -- **Ms. Manal Agriculture program project consultant and responsible for the Aysheen Bekhirha project in Beni Suf**

Here the participant was affirming that the social skills of those women was changed and they are now different, as they even teach their husbands somethings that they know better about it, and that changing the norm in some communities from a stay at home wive to an entrepreneur or even a merchant in a specific crop and compete in a male-dominant market, this by itself is a step that should be applaud for.

Aligning with what Ahmad & Islam, (2024), entitles that the importance of community empowerment as it is important to actively participate in their own development, which will eventually lead to sustainable and equitable outcomes.

Improving Value Chain in the governorates, as **Dr. Hanaa Program Director, Agriculture and Natural Resources and Mr. Hassan** emphasized that, *“We are not only working on female farmers, but we are also working on the value chain in every governorate, and we see that women are useful in which area there, and we begin to find them a place and train them to earn good money in their community and also support their families and themselves. Such as artichokes in Behira - okra in Giza - grapes in Minya - onions in Beni-Suef this year”*.

This statement, which was provided by both participants, emphasizes the importance of the initiatives taken to strengthen the value chain in the different governorates of Egypt, with a particular focus on women’s farmers. It also acknowledges the significant role that women play in agricultural production and works to increase their participation and financial gains within the value chain, providing the value of the contributions made by women.

6.5 Sustainability of projects

It is worth noticing that a significant attention which is directed toward ensuring the sustainability of the project and ensuring it will be a long-lasting impact. As **Ms. Manal**, said, *“We only encourage and show them the way, and we stay with them at the beginning of the agreements and train them, but they are with the suppliers alone and we intervene if something goes wrong. But they travel and do everything on their own until they receive the checks from the bank “*.

The program aims to ensure the sustainability of its impact by training women from the target communities as “Facilitators”. These trained women were tasked with spreading awareness and ensuring the program’s reach within the communities. This approach aimed to create a more sustainable and effective program by fostering local ownership and understanding. The success of this strategy was evident in both Behira and Beni Suef governorates, where participants expressed a strong desire to continue the program’s activities even after its official termination.

When they were asked are you willing to continue “the Box” even after the program finishes, Behira participants all said that they will continue, and that was the reply of Beni-Suef women too.

When they were asked if one day the facilitator Abla Safaa told you the project is done and no more “The BOX”. will you continue? They all replied shouting: “YES, of-course”

Then **Safya replied**: “*the village that we are in is a very small one, we managed to collect 4 groups (each group has 20-25 woman) so we almost covered the whole village.*” “*We gathered all the women who are in the age group to participate in the project.*” We will continue.

Participants here answered in the context of the program’s focus on sustainability through having community-based facilitators which was a crucial element in ensuring long-term impact and empowerment of women, here we can see that the program fostered in them the sense of ownership and cultural understanding that resonates with them along the way, which will help in ensuring the sustainability of the process and even have a continued effect.

Community-based approaches play a crucial role in bridging the gap between the program and the participant’s community. Training of trainers (ToTs) from within the community through the facilitators, help in improving the ability of bridging cultural gaps that may arise during interaction with these women; additionally, it fosters trust because these women are the only ones who understand their local opportunities and challenges, they even help implementers in tailoring the programs’ intervention to meet their desired needs, ensure impact and sustainability of these programs, even after it has ended.

“One of the main goals was the idea of training of trainers (ToT). I will take the idea not only because we will also spread it among the neighbors with awareness.” -- Dr. Yousry expert in Rural Sociology - Human Development & Economic Department

Here the participant is talking in the context of training community facilitators within the community as they will lead the awareness for a specific idea and will ease the word with their communities as they are the only ones who understand their language. Affirming with the abovementioned, using community based approaches in microfinance services is very important and key role in involving the community which enhance the creation of sustainable programs which promote learning (Ahmad & Islam, 2024).

He highlights the significance of sustainability, which is attained by means of continual observation and trainer training. This guarantees that the information and skills gained are shared across the community and that the project's advantages extend beyond the first phase of implementation.

Highlighting the significance of sustainability, which is attained by means of continual observation and ToTs, it might guarantee that the information and skills gained are equally shared across the community and that the project's objectives reached beyond the first phase of implementation, however, we can determine the frank value and long-term consequences of development initiatives more precisely by choosing the indicators and time for impact assessments wisely. In turn, this makes it possible to allocate resources, make decisions, and implement programs with knowledge, all of which help to accomplish the objectives of sustainable development.

Aligning with what Dr. Yousry expert in Rural Sociology - Human Development & Economic Department noted that the impact of agricultural projects must be measured after several years, such as five years or more from the implementation of any project, and this must be measured through actual indicators of the resources resulting from the project, such as the project's profit or the quantitative production resulting from it. This applies to all projects, not just agricultural projects.

He said, *“Today, in order to see the social impact of any project in the world, I have to go through a period of time which is completely useless if I started working last year and say that I want to see the impact.”*

Also, **he** confirmed the importance of sustainability of the project through various methods, such as training of trainers (ToT) for a large number of other people and continuous monitoring of projects, while being careful not to intervene except when needed only.

The perspective shared by the participant highlights the importance of time and appropriate indicators to accurately reach impact assessment for any agricultural or even developmental project, he ensures that the evaluating process takes time for at least five years to be able to evaluate such implementations, which will eventually allow to fully see and monitor project's outcomes and more accurate understanding of their sustainability and long-term effects.

Dr. Yousry told us an example about a success story that he published it in one of the magazines issued by USAID. ***It was a story about one woman.***

“This woman was a very poor woman. She had one animal in the house, this animal was the one that used its milk and cheese to spend from., she also was the breadwinner household.”

“Her children had genetic and health problems, and after a certain period of time they would be exposed to some type of vision loss. This woman attended training, complied with the technical recommendations, and began to implement them---after four or five months, improvement began to occur in the production, then we started to measure the impact of those trainings and recommendation that was given from the project.”

Our measurement began with some indicators, including (**children’s education** - did you educate your children or not? The response was, “Now I educate them because now I have money to enter schools”) (**Health Indicator**: Were you visiting the health unit in the country or were you going to another outside the country? Her response was, “No, I am now going.” *I will send them to a doctor in the governorate center or a hospital in the center after saving money as a result of the recommendations taken to expand the animal project.*) The link comes from here, the project came impacted her production, generated income for hers and change some indicators and other changed her behaviors.

In my opinion: *“After a period of time, for example, after five years, so we began to measure the impact. “And by that we can ensure the sustainability of the projects and can measure the effectiveness of these types of projects.*

Here the participant underscored the significance of using objective indicators like project profit or quantitative production data to be able to measure the impact. Moreover, he stated that a tangible system of measurement provides a more concrete basis to assess the project’s effectiveness and contribution to economic development. His observations go beyond agriculture, highlighting how this strategy may be used in any kind of development endeavor. He even shared a story with us acknowledging the limitations of short-term assessments, and that attempting to evaluate a project’s impact should wait at least a year after its inception and stressing on the importance of time for observing the whole aspects of outcomes, which will include intended and unintended significances.

6.6 Social and Economic Impact

There were a significantly shown improvement in the interaction of participants with children and husbands and better enhancement in family dynamics, which will eventually lead to fostering a supportive environment for women’s empowerment.

6.6.1 Enhancing Women’s interaction with their Children

Increasing gender equality awareness in women's child-rearing practices and assisting women in developing stronger independence and interest in their children, as directed by the

facilitator's education sessions for beneficiaries and farm field schools. As well as the sense of treating and interacting with their husbands.

A **participant from Behira** added that *“we have learned from these projects very good things, especially with hard, stressful tone child-rearing”*, WHY? She mentioned the FAYZA AND ANAAM Story. She said that her sister was treating her kids in a bad way. When she begins talking in a harsh tone, she shamefully call her ANAAM and she keeps telling people in the street to call her ANAAM (as a shaming name) because she is harsh with the children. But she started to avert from her harsh behavior day by day, and **she** mentioned that *“we began to talk nicely with the kids and good Just LIKE ABLA SAFAA explained to us”*. **Participant No.1 from Beni-Suef governorate**, said *“these sessions taught us how to treat our children and how to treat girls like boys”* and **Participation No.8 from Beni-Suef governorate** added, *“The story of Faiza and Anam represents that there no racial discrimination between boys and girls”*. The participants testimonies from both Behira and Beni-Suef highlights the transformative impact that the program had on them on parenting practices and family dynamics, through the story of “Fayza and Anaam” who serves a powerful reminder of the negative effect of such practice, they mentioned that by learning about positive communication, nurturing behaviors and its importance they shifted their attitudes to child rearing, leaving behind harshness, bullying and move forward towards a more respectful and supportive interactions between them.

When **Beni-Suef women** were asked How did the story of Fayza and Anaam affected their dealings with their children? **Participant No.1** said, *“We must treat girls with kindness and hold her in my arms”*, **Participant No.4** said, *“The story affected us that we treat them right”*, **Participant No.7** said, *“We treat them right and do not differentiate between boys and girls*, **Participant No.4** said, *“There is no need for racism between boys and girls. We should not differentiate between them.”* **Participant No.5** said, *“Now, there is awareness left and there is no distinction.”*

This quote of a participant that emphasized the story’s role in promoting gender equality and that it helped her to challenge traditional beliefs about the differentiation in treatment between bosy and girls.

All **Behira women** confirmed that they benefited from the program on how to treat their children better.

Wafaa added “*She benefited from the social empowerment sessions from the story of (FAYZA AND ANAAM) they learned how to treat their children and how to deal with them properly, and she stressed that they were treating their children in the wrong method*”. **She** added “*We learned how to raise our children and how to deal with them from the story of Fayza and Anaam, it changed our lives*”.

Wafaa added: *Yes, Of course, I used to be short temper with my kids and shout all the time, I used to call my boy you are “retarded, but now I don’t say it at all, because I knew it makes him sad, Noura interrupted: our manner changed, Wafaa then continued: after getting the class of Fayza and An3am it changed a lot in our lives and our manner with our kids.*

Another participant said, “*I used to fight all the time with my daughter, I was sad for doing this to my daughter, but I didn’t know what to do with her and how to handle her, so when I told her about the session we took, she also tried to change with me, we changed a lot (affirmatively).*”

In analyzing these quotes and overall story, we can see that participants’ attitudes towards their children were bettered and that this often highlights the importance of good parental relationship, engagement and support and that these positive attitudes significantly impact their children’s learning process, life skills, and will impact their overall development, and also the fact that those women broke the cycle of the old-fashioned child behavior and actually absorbing the importance of better mother\daughter or mother\son relationship will eventually lead to healthy home and that their children will follow the same footsteps into a better developed community.

6.6.2 Enhancing Women’s interaction with their Husbands

After joining the program and taking all these trainings, participants sensed a noticeable improvement in their relationships with their spouses, many of them saw their husbands changed and looked at them in a different way and that sharing was their new norm in their home, that promoted a sense of respect and cooperation in those women, the impact of open communication further strengthened these households, which if anyone knows rural communities they are far away from these family dynamics or even these spousal behaviors, which eventually by the proof of these participants improved their home harmony.

When **the Behira women** were asked when they finish the empowerment learning lessons does it affect the way they treat their husbands, and the way they behave with him? They all replied quickly *“YES, YES it affected, we didn’t know anything about this at all, we knew how to deal with our husbands at home from the project facilitator Abla Safaa and other facilitator “Abla Shams”.*

Safyaa replied: *“first when he was shouting I used to say No and fight back, but now I remain silent till he is calm and then we talk together gently.”*

This quote from the participant reveals the profound shift in their self-awareness, communication skills and enhancing their sense of agency within their families.

It is acknowledged that the program significantly altered the shape of the interactions with the participants spouses, highlighting the role of fostering financial independence and how it changed the family dynamics in this community and this profound shift is beneficial.

Nora added: *“before starting my own project, me and my husband used to fight and debate all the time, but after the project, HE sensed that there is a calmness in the house.. If I want something and I have the money I get it immediately.”* **She** added: *“I am happier Elhamdulillah now.”* Madam Safaa the Facilitator added. and He also felt this, and Nora nodded and affirmed.

This quote from the participant was shared in the context of to what extent these teachings changed the household atmosphere and the relationship between your spouse, and the response was that they are happier now, with my anger control, our newly communication approach that we learned is paving the way for better relationship and she can sense it.

All these testimonies provide compelling proof of the program’s transformative power and raise the importance of empowering women to take control of their lives, enhance building fulfilling relationships, and eventually contribute to their families’ well-being and economic prosperity. And fostering self-awareness, skills, and knowledge that was created through the program will have a ripple effect of significant positive change within families and communities too.

Sayed added: *“My husband felt the calm atmosphere and the good chemistry that happened between me and my daughter, I had a sewing machine at home and now I*

enlarged my project and it's working very good now (Mash3'al) and I let my daughter work with me.

She added *“Our lives have changed completely, my husband felt that there is now more mental pressure on me.”*

Another participant added, *“whenever a fight is initiated, I remember what Abla Safaa said to us and I step back, and we are getting better a lot, my husband is happy with this situation, when he enters our home, he feels the change.”*

6.6.3 Shifting dynamics of household power and Gender roles

A greater sense of social awareness and community engagement has been demonstrated to significantly influence women's positions in the community, encouraging social advancements and improving community development.

Despite facing bullying from other villagers due to women working outside the home, all women interviewed confirmed that their husbands eventually allowed them to participate in the program and allowed them to work too. Originally, husbands had restrictions, but overtime, they became more lenient, supportive, and even encouraged their wives' work, even in some cases it was unannounced.

“They disagreed the first time”. Then they were asked what encouraged them to change their minds, *we proved ourselves*”, *“After the harvest was received and he found benefit from it”* -- **Beni-Suef participants**

“They didn't want us to go”, “They tell us that you are very empty, and they belittled us”, “We were subjected to mockery and insults “My husband was bullied because I went to Kafr El-Zayat, but he said them It's not up to you” **Beni-Suef participant No. 1&2**

This quote of participants shows the vivid picture of the evolving dynamics of household power and gender roles within their communities, they mentioned that at first they faced resistance and skepticism from their husbands and families for participating in this program, but they showed perseverance from this resistance that is rooted from traditional norms and beliefs about women's roles and responsibilities and shaping new roles for themselves no matter what they heard.

“When we used to tell them about the project, they laughed about us and said that we are not busy, it’s better to stay this hour for ourselves and our home, it’s better to stay at our home, stop jumping from here and there.” **Wafaa Behira Participant**

“People sarcastically used to tell us what this project is, what you do in it, and the project ’s not necessary.” Now **he** (her Husband) told them that they took this, they did that, and they took these particular lessons, and they replied in a regretted tone *“We wish we entered, and we will participate the project’s next round.”* -- **Another Behira participant**

These quotes show the resilience of these women and how they faced these ridicule and belittlement from their communities and how they pursuit their knowledge and self-improvement and lead themselves to overcome societal barriers.

Women contributed to enhancing social awareness by sharing agricultural information acquired from participating in Farm Field schools with their spouses and other people in their community.

“Yes, of course we will tell and provide them with what we have learned”. adding, “of course, we will provide any detail or info we have, I my father-in-law, has a land and was asking for something in the crop, I taught him what I knew about irrigation and what I did in my land, and he did what he heard from me.” --**Beni-Suef participant No.7**

“Yes, yes we talked and told people about all our teachings and beneficial sessions that we had in this program, we even encouraged them to participate, and this motivated some to enter\participate in the project” -- **Behira participants**

These quotes demonstrates that when women knows they will actively share their knowledge and skills with their families, ladies like them, and communities, and their actions will help in the contribution of raising awareness within their communities, and that they have the commitment and urge to empower others as they are the only ones who know the situation before all of this and eventually it will create more inclusive and equal society.

6.7 Quality of life

By examining the data and conducting firsthand interviews with the participants, the researcher was able to observe the combined impact of agricultural training, nutritional health, and socio-economic empowerment on women's holistic well-being.

This intervention managed to address different aspects of well-being through those women's insights and testimonies involving:

- A) Enhanced Occupational well-being through increased self-confidence and autonomy that have led to greater job satisfaction and career fulfillment.
- B) Enhanced Social well-being through having self-esteem and having a sense of belonging that has strengthened social connections within women's communities.
- C) Enhanced Physical well-being through enhanced self-worth and a sense of empowerment that motivates them to prioritize healthy habits and take good care of their physical health.
- D) Enhanced Mental and emotional well-being through increased self-confidence and resilience that contributed to emotional stability and reduced stress in their households.
- E) Enhanced Spiritual well-being through the sense of empowerment and self-worth which have fostered a greater connection to oneself and a sense of having a purpose in life.

“Women's personality has completely changed. They have become decision makers and can now choose & determine the type of crop to plant. They were able to travel alone for the first time in their lives to buy seeds and deal with traders alone “. For example, “The women traveled to Kafr El-Zayat at the time of sorting the seeds themselves, and they were leaving alone at 3 am to sort 37 tons despite being subjected to harassment from people”. However, they did all by themselves and had eventually the best potato harvest this season out of all big traders in the place, which was a success to them.” -

- Ms. Manal Agriculture program project consultant and responsible for the Aysheeh Bekhirha project in Beni Suef

The analysis mentioned above underscores the multifaceted impact of the program on women's quality of life, the participant highlighted the combination of agricultural training, nutritional health, social empowerment, and economic empowerment addressing the different aspects of well-being, which will help those women to lead to a holistic improvement in women's lives.

Women feeling that they have the power to take control and do a decision can lead to great empowerment for them and enhance their sense of control over their lives, which is essential

for any women so that not to feel that she is not just an object in her house. It showcases their ability to overcome challenges and achieve their goals.

All **Beni Suef Participants** all responded in the same area, *“Now I have a word”, “Self-confidence”, “I now have an entity and a word”, “Marital sharing, we have an opinion now, we converse with each other; we take part with each other”, “Income has increased”, “The most important thing is the cooperation between a woman and a man”*.

These quotes and statements from both Behira and Beni-Suef participants revealed a groundbreaking change in their self-perception and social standing in their community; they all collectively announced that they now have their own voice, self-confidence, and sense of independence within their families and communities, they mentioned previously that they felt worthless, with no voice, and have no power over anything in their lives, and their contributions were undervalued, however, after their participation in the program they gained confidence in themselves, they take their rights now, and speak up to themselves, they participate in decision making process in their household and also in their newly work life, they have now the right to access resources they had never had the access to.

“Joining has changed also my psychological state, “I used to see the situation Infront of my eyes, so you didn't know how to act, now I take my rights, I am not afraid of no body, I have a word, I have an existence” -- **Behira participant**

The quote of this participant is profound as she explicitly acknowledges the positive impact on her psychological state and that feeling empowered and have the control over her live and help in making choices will unintentionally affect positively their psychological well-being.

Participating in this program enabled women to improve their social skills: by transforming their inability to deal with buying and selling with traders, to being able to do so greatly after taking the farm field schools program and to have self-confidence, and worth to speak loudly for herself and her project, matter, and everything.

“There was no place in the first place that we could gather together and go to a place like this”, **Beni Suef Participant No. 1**

“Now our heart is cold”, **Beni Suef Participant No. 2**

“Now I can deal with anyone, and I go to any place. In the past, I didn’t leave the house.”, we went out and planted and did everything with our hands” Beni Suef

Participant No. 11

On the other hand, some women learned how to take their rights and learned how to deal with the traders or people in general. And when asked (would you be able to do these acts before getting the lessons of empowerment?. They all loudly shouted and replied, *“NO at all, we used to be afraid.” Behira Participants*

Those women when they felt their self-worth and felt important they started to promote and motivate other women to establish agricultural projects through taking a loan from the Village Savings and Loan Fund “The BOX”, knowing that the program’s credit facilities can be used in non-agricultural projects.

“There were many people who wanted to do a project like we did, and we told them to gather 10 people and start.” -- Beni-Suef women, Participant No. 1

“They remained angry” Beni-Suef women, Participant No. 4

“They are already asking to join us.” -- Beni-Suef women, Participant No. 5s

For **Behira Participant**, when they were asked, Before the project you used to do anything? **One participant** replied *“NO”*. Then **Safyaa** added that *“In the past, no, now I go to the market and sell frozen fish with plastic shoes only in Holidays”* and **Wafaa** added *“before, we wake up in the morning, we clean our house and see our kids, who will go to the lesson and who will go to school and then we sit doing nothing.”*

Another Behira participant interrupted *“before we did nothing”*. Then **Wafaa** continued *“you sometimes talk with your neighbor, or even fight with her we were living like this.” We didn’t know any benefit or any service” until **Abla Safaa** came and talked to us, and we participated in the project.”*

In these testimonies, participants were trying to highlight the significance of the transformative impact on women’s self-confidence, self-esteem, autonomy and sense of agency, explaining that they are now empowered to make decisions, take their rights, they are now busy with participating in income generating activities that were previously considered very far from them, they now have the ability to travel alone, engage in business transactions and demonstrate an adequate independence within these restricted communities.

Discussion of Findings

This qualitative paper analyzed the process of integrated agriculture projects on rural women in Egypt. In particular, the “Ayshen Bekhirha” program in Behira and Beni-Suef governorate were studied. The program had an employment impact on these women, that transformed spousal attitudes. This led to greater acceptance of women working outside the household chores sphere and contributed to improving family well-being.

The program also impacted the financial empowerment through the Village savings and Loans fund, known as *the box*. It has been the instrumental tool that helped beneficiaries\women in helping build their financial capacity and establish their own projects. Hence, this helps in enhancing their family status, and alleviate poverty level in rural households. This also helped in improving the educational background for their children as women are contributing more to their children lessons and more focused on their nutritional status.

Kapoor (2019) emphasized that the most effective method for empowering women is by organizing them in savings and different credit services. Any aid in strengthening woman economically is a matter of advancing women’s human rights. Hermes & Lensink (2007) focused on ending poverty through a variety of microcredit programs and their effects on improving health, and education. Their study showed that these initiatives have a range of positive effects that go beyond economic empowerment to include more significant social and developmental goals.

As shown in the analysis above, there were unintended (indirect) impact that happened to those women who participated in the program of “Ayshen Bekhirha.” Their psychological well-being was getting better through the process, seeing all their responses and along the interview process, you can find different responses like “*self-confidence*”, “*empowered*”, “*entity*”, “*have an autonomy in my own home*”, “*can take decisions*”, “*can now participate with my husband*”, “*we converse with each other*”, “*I can do anything by my own now*”, “*I have my own money*”, one even said “*my psychological well-being is better after learning how to treat my daughter*”. These expressions reflect the calmness in their voices when they express how their husbands sees them, and sensed the change in their wives. Those women were proud of themselves and proud of their accomplishments.

Women participants wanted a real change in their lives and for their kids. When they learned the new nutritious sessions and what good food for their kids and what is bad and knowing the bad habits they used to do, they eventually changed all these habits. They wanted to be better persons for them and for their kids, and that what will eventually break the cycle of ignorance, bad habits and overall poverty. This will lead to graduate poverty maybe not immediately but in a generation or two, they will eventually be their best selves.

Consistent with Lucy, Ghosh, & Kujawa (2008), that discussed the empowering effects of microcredit loan programs on women, they found that participation in those self-help groups within women's entrepreneurship programs fostered empowerment and overall well-being. These programs show improvements in household nutrition and elevated aspirations for children's education.

This analysis explores the interconnectedness between the themes generated from the data and their contribution to enhancing the quality of life of program participants, including:

First, occupational well-being, a key economic empowerment aspect, encompasses job satisfaction, work-life balance, and career fulfillment. These elements are pivotal in holistic well-being, contributing to a balanced and fulfilling life.

Second, physical well-being, closely linked to the improved nutrition theme, includes aspects such as overall body health, nutritious habits, and maintaining healthy eating habits. These factors are essential for feeling energized and preventing illnesses such as (child malnutrition, stunting, and women's reproductive health).

Third, mental and emotional well-being, a core component of quality of life, involves cognitive functioning, emotional stability, and resilience. It is primarily associated with feelings of happiness, self-worth, and stress-free living.

Fourth, social well-being, a key aspect of the social empowerment theme, emphasizes the significance of connections and healthy relationships with family members, children, and spouses. Social support and a sense of belonging significantly impact individuals' well-being.

Fifth, spiritual well-being is defined as the influence of our surroundings on our overall well-being, emphasizing the importance of a safe and clean environment in nurturing our spirit. This aspect does not necessarily involve religious beliefs but contributes significantly to overall well-being.

Chapter 7: Conclusion & Policy recommendations

Empowering women economically helps generate the best possible realization of their rights and well-being, and it will help enhance productivity, increase economic growth, and improve their effectiveness in their communities. This type of empowerment will affect their capacity to succeed, advance themselves financially and have the decision power to take and act on economic decisions that best suit them and their family.

Different policies, organizations, and government's sole objective is to achieve economic empowerment for women to achieve poverty reduction, and inclusive economic growth for women. It is a win-win situation while achieving better well-being of the women and guaranteeing their financial independence will affect the whole community. The findings of this study provide compelling evidence of the profound social impact of the "Aysheen Bekhirha" program on women and their communities in rural Egypt. The program's multilayered approach has empowered women economically and socially, improved their access to resources, and enhanced their overall well-being.

The program's success in empowering women economically is evident in their increased financial independence, participation in decision-making, and improved access to credit facilities and agricultural land. This economic empowerment has not only transformed their lives but also contributed to the overall stability and prosperity of their families.

In consistent to that, Hendriks (2019) discussed that if women have the ability to make decisions and take decisive actions as agency is as important as economic empowerment. It is not only about income or productivity, but also about ensuring that women have the confidence to take economic risks, know how to shape and draw their financial future. This includes having autonomy in her household matters and when women have collective action and come together in solidarity. It can be a tool to create positive social change and strengthen women's economic rights.

Furthermore, the program has positively impacted the health and nutritional status of families, improved cultural and social backgrounds, and promoted gender equality. It has also facilitated and sustained women's professional empowerment in the agricultural sector, improving their social skills and enabling them to participate actively in community affairs. The positive influence of the "Aysheen Bekhirha" program extends beyond individual women and their families. It has fostered a culture of support and encouragement within communities,

motivating other women to pursue their entrepreneurial aspirations and contribute to the overall economic and social development of their communities.

There is a powerful message conveyed in this program, the transformative potential of education, empowerment, and perseverance in challenging traditional gender roles and creating a more just and equitable society. This will help in enhancing the overcoming of the societal resistance and demonstrating capabilities. Women in this program have paved the way for future generations to flourish and contribute meaningfully to their families, communities, and the whole world.

In conclusion, this study has demonstrated the transformative power of the "Aysheen Bekhirha" program in empowering women, improving their livelihoods, and fostering a more equitable and resilient society in rural Egypt, which had a positive outcome to their overall quality of life. This abovementioned success that was viewed from the participant's insights and interpretations highlights the importance of integrated interventions that address the multifaceted challenges faced by women and promote their full participation in economic and social development. The fact that the program's success in empowering women leading to enhancing their well-being and will improve their quality of life. This was through unintentional effects like finding their voices, claiming their rightful place in their community, having autonomy and power over their lives. This represents a significant step towards achieving gender equality and helped in building a more just and equitable society for the future society.

Policy recommendations

- 1) Effective collaborators provide mechanisms for the supervision of these interventions and capacity-building initiatives, such as formal supervision mandate organizations, and ensure that the results of monitoring or assessment generate a sufficient response.
- 2) Develop and execute gender-responsive agricultural policies that give women access to land, credit, and training, to increase support for gender-sensitive policies.

- 3) Employ local women as facilitators in training and support programs to promote autonomy and community trust while optimizing the relevance of the training offered. This is one way to leverage local expertise via empowerment initiatives.
- 4) Establish long-term financing and resource channels to assist women-led ventures so that economic activities remain viable even after program completion.
- 5) Using a participatory approach in the developing policy process, women should be guaranteed that their needs, voices, and perspectives are fairly reflected in agricultural and economic policies by involving them in the process.

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Questions:

For Key Informant Interviewees

- 1) Can you please introduce yourself, your role in the program, and your length of involvement? What are your primary responsibilities and areas of expertise?
- 2) Please describe the types of sessions and agricultural trainings that have been implemented within the program. What are the key objectives and outcomes of these activities?
- 3) How are gender considerations currently incorporated into agricultural policies and programming in Egypt? Are there specific strategies or initiatives in place to address gender disparities?
- 4) What challenges or barriers have hindered the development of projects that effectively link agriculture and women's empowerment in Egypt?
- 5) How can programs better support women farmers and strengthen their roles in the agricultural sector? What specific interventions or policies would be beneficial?
- 6) Based on your experience, how do the needs of women farmers differ from those of men? What are the unique challenges and opportunities faced by women in agriculture?
- 7) What best practices or models have you observed for integrating agriculture with nutrition and promoting better life outcomes for women?
- 8) What types of gender training or behavioral change components have proven most effective in addressing gender-related issues in agriculture?
- 9) What key lessons can be shared about adapting projects to the local Egyptian context and cultural norms?

For Program Participants

- 1) Can you describe the most significant things you learned or gained from participating in the "Aysheen Bekhirha" program? How has this experience changed your life or outlook?
- 2) What specific benefits have you developed from the program? Please discuss any positive changes in your income, health, education, or family well-being.
- 3) Can you provide an overview of the "Aysheen Bekhirha" program from your perspective? What were your primary roles and responsibilities within the project?

- 4) How did you become involved in the project? Did you receive any training or preparation before starting?
- 5) Has your income increased as a result of participating in the project? If so, how noticeable has this change been?
- 6) Did the project help you develop new skills in areas such as agriculture, irrigation, or the food industry?
- 7) Has the project equipped you with skills that can be applied to other projects or job opportunities, leading to a more sustainable income source?
- 8) Have you noticed any improvements in your time management skills or ability to interact with merchants?
- 9) Have you noticed any improvements in your ability to interact with your children, spouse, and your community?
- 10) Were you able to easily obtain all the necessary inputs and resources for the project? If not, what challenges did you face?
- 11) Did you encounter any difficulties related to being a woman, particularly in your interactions with traders?
- 12) Has your ability to make decisions changed since participating in the project? If so, how?