

Impact of Food Security Program on Improving the Livelihood of Rural Communities (Food and Agriculture Organization-Program - in Eastern Sudan)

Omeima Bashir Khalid^{1, *}, Elshifa Ali Mergani¹, Ahamed Harir Mohamed²

¹Department of Agricultural Extension and Rural Development, College of Agricultural Studies, Sudan University of science and Technology, Khartoum North, Sudan

²Research Follow at Department of Agricultural Extension and Rural Development, College of Agricultural Studies, Sudan University of science and Technology, Khartoum North, Sudan

Abstract

This study was conducted to assess The Impact of FAO food security program on improving the livelihood of rural communities in Eastern Sudan and Investigate if the project enhances the agricultural livelihood and natural resource control in the area. The social survey method was used to conduct this study, the study sample was selected from the two regions of the study area (Sarobtawi, Gorashi). The primary data was collected using questionnaire; Secondary data were collected through reports, references, research and websites. Data collected, analyzed using statistical package for science (SPSS). The study comes with many results the most important are: There are many factors affecting food in security in the area, drought, floods, farmland degradation, pests and diseases, also the program provided may activities to the rural woman in the area, agricultural services, inputs, educational programs and training, and the program reduced poverty and malnutrition by food diversity, vegetables cultivation and by increasing the income of respondent. Based on the results the researcher recommended the following: Increase the education in the societies, enhance agricultural livelihood, and improve water harvesting for agricultural livestock activities.

Keywords

Livelihood Activities in Eastern Sudan, Coping Strategies, Food Security Program

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1. Introduction

Food security is critical for health, labor productivity, economic growth and sustainable development. Regional and local food insecurity, coupled with the need to develop innovative and sustainable solutions aimed at increasing food production. While human practices and consumer preferences, among other factors, are blamed not only for food less but also food waste [2]. The long-term solution for

the increasing demand for food for a growing population lies in optimum food production through sustainable ecosystem based management practices and in strategies to reduce food waste and losses [8].

Food security” is one of major elements of development and poverty alleviation and has the goal of many international and national public organizations [4]. The issue is so important that according to the state of food insecurity the world 2012 published by Food and agriculture organization (FAO) around 870 million people (out of which 852 million

* Corresponding author
E-mail address: OmeimaKhalid@gmail.com (O. B. Khalid)

from developing countries) are estimated to have been undernourished [4]. Although the phrase “food security” is being used widely, the definition and concept of food security is elusive and being evolved and expanded over time [4].

Defining food security precisely is very difficult, there are more than 200 definitions 450 indicators of food security [5]. Following are some popular definitions of security: 1996 world food summit: “Food security exists when all people, at all times, have physical and economic access to sufficient, Safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.” [5]. Dimensions of food security included food availability, food accessibility, food utilization, and food stability [3].

Livelihood sometimes refer to a household own relationship to disasters, how household use their assets to cope with crises as well as how societies policies institution and processes affect the household strategies for dealing with disaster-related risks and vulnerability [9].

Livelihood provisioning involves providing food and meeting other essential needs for households to maintain nutritional levels and save lives. Interventions of this type usually entail food and health relief for people in an emergency or people who are chronically vulnerable [7], Livelihood is defined as a set of activities performed to live for a given life span, involving securing water, food, fodder, medicine, shelter, clothing and the capacity to acquire above necessities working either individually or as a group by using endowments (both human and material) for meeting the requirements of the self and his/her household on a sustainable basis with dignity. The activities are usually carried out repeatedly [10].

Households coping strategies The first involves elements of risk minimization such as saving, investments, accumulation of assets and diversification of income sources. The second involves divestment of assets, and in of loan, and searching for new credit, the last one is to sell all their remaining assets, collect famine foods and make to achieve their livelihood goals [1].

Farming and pastoral livelihoods, which represent the major source of local income and employment for about two-third of the total population in Kassalla state [6].

Kassala state suffers from a chronic food insecurity problem, which contributes significantly to high rates of malnutrition. According to 2012 Ministry of Agriculture and WFP Comprehensive Food Security Analysis, 22 percent of the total population in Kassalla state suffers from chronic food insecurity whilst 26 percent were found moderately food insecure. The worst affected areas in Kassalla state with the

highest percentages of food insecure people are found in Hameshkoreib, Telkok, Aroma and North Delta. In these localities the productive sector faces numerous challenges such as recurrent droughts, flooding, environmental degradation, water scarcity, weak local government institutions, animal and plant pests and diseases. The natural vegetation cover is deteriorated leading to increased soil erosion and low productivity of crop and livestock. These localities also have the highest rates of chronic and acute malnutrition [6].

So the main objectives of this paper is investigate if the project implemented as it was planned, Determine the number of people beneficiate from FAO project and measure the impact of the project in reducing poverty and malnutrition in rural area.

2. Methodology

The study was carried out in returnee’s rural areas in Eastern Sudan, Kassala State, Aroma locality, Sarobtawi and Gorashi villages. (40) Household women were selected from two villages, social survey methods was used to conduct the research. The primary data have been collected through interview, critical observation and questionnaire. The secondary data were collected from documents, articles report, and website or internet; these secondary data are useful for purveying background information.

3. Results and Discussions

Table 1. Frequency distribution and percentage of respondents by their ag.

Age	Frequency	Percent
less than 20 years	4	10
20-40 years	24	60
more than 40 year	12	30
Total	40	100%

Table 1. shows that (60%) of responded reported that their ages between (20-40) years while (10%) less than 20 years. This indicated that the most (60%) of responded where in their productive age (youth) or active, which means in rural areas traditionally the youth marry early also More acceptable everything that is innovative and fresh.

Table 2. Frequency distribution and percentage of respondents by their educational level.

Education	Frequency	Percent
Illiterate	15	37.5
Basic education	23	57.5
Elementary	2	5.0
Total	40	100%

Table 2. shows the highest (57.5%) of responded are basic

education while (5%) are elementary. This shows that there is no school in one of the two areas while in the other there is no service.

Table 3. Frequency distribution and percentage of respondents by their family size.

family size	Frequency	Percent
less than 3 persons	9	22.5
3-6 person	21	52.5
6-9 persons	9	22.5
More than 9 persons	1	2.5
Total	40	100%

Table 3. shows the majority of respondents (52.5%) their family size between 3-6 persons, while (2.5%) more than 9 persons. This indicated that people get marry early if you see Table 4 most of them are youth, the large family sharing in the basic needs of their family by taking different work. Even in the food security when the household has a large member that means they will cultivate large areas with different crops.

Table 4. Frequency distribution and percentage of respondents by their nationality.

Nationality	Frequency	Percent
Sudanese	36	90.0
Eritrean	3	7.5
Ethiopian	1	2.5
Total	40	100%

Table 4 shows that majority (90%) of respondents were Sudanese while (2.5%) were Ethiopian. This indicated that most people who benefited from this program are Sudanese. Although in the area of displacement there refugees from Ethiopia and Eritrea.

Table 5. Frequency distribution and percentage of respondents by occupation.

Occupation	Frequency	Percent
Worker of charcoal	25	62.5
Employee	2	5.0
Farmer	13	32.5
Total	40	100%

Table 5 shows that (62.5%) were workers while (5%) employee. This indicated that every individual works to get his daily life. It is observed that most respondents are work in agriculture and pastoral as the main occupation, in addition to some marginal work.

Table 6. Frequency distribution and percentage of respondents according to factors affecting the program.

The reasons	Frequency	Percent
Drought + floods	22	55.0
Farmland degradation	13	32.5
Pests and diseases	2	5.0
Other mention	3	7.5
Total	40	100%

Table 6 shows that (55%) effected by drought + floods while (5%) by effected pests and diseases. Food and agriculture

organization reported that conflict and recurrent natural disasters have disrupted the livelihood of the segment of the population.

Table 7. Frequency distribution and percentage of respondents according to their main sources of income of the household (family) before the program.

The main sources	Frequency	Percent
Trade	2	5.0
Farming	23	57.5
Pastoral	3	7.5
Trade + farming + pastoral	2	5.0
manual labor	9	22.5
Farming + pastoral	1	2.5
Total	40	100%

Table 7 shows that majority (57.5%) of respondents their main source of income is farming while (2.5%) Farming + pastoral.

It means most of the respondents were farmers because of it are an Arable land and that is why most of the people prefer farming.

Table 8. Frequency distribution and percentage of respondents according to their monthly income of the household (family) before program.

Monthly income	Frequency	Percent
less than 700SDG	37	92.5
700-1000SDG	2	5.0
More than 1000SDG	1	2.5
Total	40	100.0

Table 8 shows majority of the respondents (92.5%) gain less than 700SDG while (2.5%) earn more than 1000SDG. FAO reported in this project Kassalla suffers from a long standing underdevelopment and widespread malnutrition and poverty rates.

Table 9. Frequency distribution and percentage of respondents according to their main sources of monthly income for the household (family) after program.

Main sources	Frequency	Percent
Trade	4	10.0
Farming	31	77.5
manual labor	5	12.5
Total	40	100.0

Table 9 shows that majority (77.5) of respondents their main source of income is farming, while (10%) from Trade. as indicated in table 9 the majority of respondents (57.5%) are farmers, and in this table (77.5%) are farmers which indicate about (20%) of respondents are benefited from the program.

Table 10. Frequency distribution and percentage of respondents according to their monthly income of the household (family) after program.

Monthly income	Frequency	Percent
less than 700SDG	12	30.0
700-1000SDG	27	67.5
More than 1000SDG	1	2.5
Total	40	100%

Table 10 shows majority of the respondents (67.5%) gain 700-1000SDG while (2.5%) More than 1000SDG. This indicates that the income has increased comparing with Table 8, they benefited from the program provided to them despite the limited resources.

Table 11. Frequency distribution and percentage of respondents by the program activities provided.

Program activities	Frequency	Percent
agricultural services	29	72.5
educational program	9	22.5
Training	2	5.0
Total	40	100.0

Table 11 shows that majority of the respondents (72.5%) provided with an agricultural services, while (5%) was training program. FOA reported this project 22% of the total population in Kassalla state suffers from chronic food insecurity whilst 26 percent were found moderately food insecure, and that is why FOA gives high priority to agricultural activities.

Table 12. Frequency distribution and percentage of respondents according to their opinion to the level of the effectiveness of the programs.

Impact of extensional programs	Frequency	Percent
very effective	16	40.0
Effective	23	57.5
extremely effective	1	2.5
Total	40	100%

Table 12 shows the majority of the respondents (57.5%) reported that the program is effective while (2.5%) reported that extremely effective. This indicated that the project was implemented well and effective.

Table 13. Frequency distribution and percentage of respondents by the extent of their benefited from the program.

extent benefited from the program	Frequency	Percent
extremely benefit	11	27.5
Medium benefit	29	72.5
Total	40	100%

Table 13 shows majority of the respondents (70%) reported that they medium benefited while (2.5%) reported extremely benefit. It means the project was implemented well and effective.

Table 14. Frequency distribution and percentage of respondents by their most important inputs provided to them by the program.

The most important field's production	Frequency	Percent
Seeds +fertilizers	37	92.5
Pesticides	3	7.5
Total	40	100%

Table 14, shows the majority of the respondents (92.5%) were provided by Seeds +fertilizers while (7.5%) was provided by pesticides.

Table 15. Frequency distribution and percentage of respondents according to problems faced them during the implementation of the program.

The problems	Frequency	Percent
lack of peace	3	7.5
Weak funding	21	52.5
find the forage	2	5.0
protecting farms from pastoral	14	35.0
Total	40	100%

Table 15. shows the majority of the respondents (52.5%) were faced by weak funding while (5%) were faced transportation to find the forage. This Area suffers from chronic food insecurity problems, which contributes significantly to high rates of malnutrition.

Table 16. Frequency distribution and percentage of respondents according to their opinion by how the program can reduce the poverty and malnutrition in the area.

The program an effect the poverty and malnutrition	Frequency	Percent
food diversity	27	67.5
cultivation of vegetables	3	7.5
increasing income	10	25.0
Total	40	100%

Table 16 shows the majority of the respondents (67.5%) mentioned that the programs can reduce poverty and malnutrition by food diversity while (7.5%) mentioned cultivation of vegetables. This indicates that the food diversity can decrease poverty and malnutrition.

Table 17. Frequency distribution and percentage of respondents according to their opinion in most important ways for improving food security and livelihood improvement project.

The most important ways	Frequency	Percent
providing improved seeds	3	7.5
improving water harvesting	29	72.5
Supporting the agricultural field	7	17.5
Supporting the cultivation of the vegetables	1	2.5
Total	40	100%

Table 17, shows that majority of respondents (72.5%) reported that improving water harvesting, while (2.5%) Supporting the cultivation of the vegetables. This because most of people rely on rainwater to manage their agricultural and livestock activities, however, poor and high rainfall variability has led to recurrent droughts. As a result, the area has been suffering from crop failures.

4. Conclusion

The study concluded that Conflict and recurrent natural disasters have disrupted the livelihoods of the poor segments of the population including small scale rain-fed farmers and pastoralists leading to increased vulnerabilities and marginalization, also this state suffers from a chronic food insecurity problem, which contributes significantly to high rates of malnutrition. This study confirms that the programs

provided by the FAO have contributed significantly to improving the conditions of economic and social of respondents and thus improve their standard of living.

5. Recommendations

The present study recommended the following:

1. Increase education in society to reduce high poverty and malnutrition because illiteracy is high in rural communities.
2. Enhances agricultural livelihoods and support natural resources management in rural communities.
3. One of the most important needs of the region is improving water harvesting and irrigation to manage their agricultural and livestock activities.
4. People needs support basic needs, (schools, health Center, water point, roads), and livelihood activities that helped and reduce the load of women headed house and children.
5. Further research dietary could investigate how to increase the supply of food promoting dietary diversification, improve access to economic opportunities and manage risk to help vulnerable household.

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