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The Role of LMRP Interventions in the Economic Empowerment of Rural Women, North Kordofan, Sudan (2017-2022)

By

Elmurtada Mohamed Elbashier Abashar¹, Abdelaziz El Amin Elsheikh², Muneer Elyas Siddig Eltahir³ and Aisha Abdelbagi Eldisogi²

¹Center for Peace and Development Studies, University of Kordofan, 51111 El Obied, Sudan

²Faculty of Education, University of Kordofan, 51111 El Obied, Sudan

³Institute of Gum Arabic Research and Desertification Studies, University of Kordofan, 51111 El Obied, Sudan



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Abstract

This study aimed to stand up on the role of the program in empowering rural women through the economical interventions, to present applicable and scientific visions that can contribute in the economic empowerment of rural women, in addition to drawing the attention of the stakeholders in the public and private sectors towards rural women issues. The study followed the Integrated Geographical Vision approach for hypothesis discussion. Data was collected by using the primary resources as questionnaires, in addition to interview, observation, and focus group discussion, beside the secondary resources. The sample size was 204 respondents selected using simple random sampling technique. The Statistical Package for Social Science program (SPSS) was used for data analysis. The study results revealed that: 78.4% from the respondents had received financial services from the different financial types as: Internal, external and mixed type, while 39.7% only had received external financial services. The study concluded that there were significant differences in financial services distribution between targeted localities, hence Umrwaba was the first locality per (40.7%), then Alrahad and Bara localities per (21.0%) and lastly Sheikan locality per (17.3%) and that referred to the geographical distribution of microfinance institutions in the state. The study concluded that, the program interventions contributed in increasing respondent's incomes per 38.8% for poor and economically active beneficiaries and per 5.4% for the rich ones, and in improving beneficiaries' financial statuses per (65.7%) which indicated that the program managed to empower beneficiaries economically. The study revealed that the main challenges faced rural women's empowerments were: Decreased financial services access represented (84.8%), decreased access to solar energy and LPG services represented (9.3%), domination of man represented (4.9%), in addition to increased illiteracy rates among women represented (1.0%). The study recommended for the necessity of proper selection and application of the appropriate gender approach, in addition to the establishment of: Financial portfolio including the potential financiers at state level as commercial banks and MFIs chaired by State ministry of finance. Public Private Partnership (PPP) unit at the state level. Departments at relevant ministries to shoulder the responsibility of leading the developmental activities after the phase out of the developmental programs. Community Investment Structures (CISs) at the administrative unit, locality, and state levels. At communities' level the study recommended for Capacity building, increasing microfinance services access, and increasing women's participation opportunities.

Keywords: Women's Empowerment, Developmental Interventions, LMRP, NKS.

1.1: Introduction

According to (IFAD, 2014) The Livestock Marketing and Resilience Program (LMRP) is a joint effort between IFAD and the Government of Sudan/Ministry of Animal Resources (MoAR) to revive the livestock industry and optimizes the use of a seriously impacted natural resource base under threat from climate change. The overall goal of LMRP is "Increased food security, incomes and climate resilience for poor

households in pastoralist communities". The development objective is "Increased earning opportunities and improved living conditions in livestock-based communities". The LMRP primary target population comprises economically marginalized and excluded households residing in pastoralist and agro-pastoralist communities. Empowerment as a concept was introduced internationally as a redistribution of social power and control of resources in favor of women. It is the process of challenging existing power relations and of gaining



greater control over the resources of power Women's Empowerment refers to an increase in the strength of women such as spiritual, political, social, and economic. (Petesch et al., 2005), defines empowerment as "increasing both the capacity of individuals or groups to make purposeful choices and their capacity to transform these choices into desired actions and outcomes". In developing measurements of women's empowerment researches are using different theories and concepts of empowerment: Many studies have looked at the impact of microfinance interventions on women's empowerment; however, these studies conclude different findings. (Hashemi et al., 1996) find that microfinance has positive impact on women's mobility, economic contribution to household, political and legal awareness and participation in public protests and political campaigns. In addition to these findings. (Pitt et al., 2006) report: women have greater social network, and higher bargaining power within households (Kabeer, 2001) finds in her study that microfinance programs lead to increased participation in household decision-making, and similarity (Pitt and Khandker, 1998) find that microfinance influences women's decision-making power on household expenditure, non-land assets, and children's education. Furthermore (Schuler et al., 1996) suggests that microfinance programs can decrease women's vulnerability to domestic violence. Secondly, there are many ways of measuring women's empowerment. These can be related to the dimensions of empowerment, ranging from decision – making power within household to political participation in villages and economic activity (Amin et al., 1998). Women's Empowerment is acknowledged as a key variable of development in less developed countries. Increasing women's empowerment does not only benefit the women themselves, but it is also believed to improve the overall life standard for their families, and strengthen their communities (Malhotra et al., 2002). In addition, female empowerment is important in order to make use of human kinds full potential; 70 percent of the world's poor are women. As Kofi Annan ,former UN secretary-general explains " It is impossible to release our goals ,while discriminating against half the human race .There is no tool for development more effective than empowerment of women " (Kofi Annan, 2006).This declaration is in line with (DFID, 2007) stating that UN's Millennium Development Goal Three ,to promote gender equality and empower women ,is not only a development goal in itself , but also a key in succeeding the other goals .Although it is widely agreed that women's empowerment is important for alleviating poverty and increasing economic growth , it does not have any clear definition. According to (HSRC, 2009), many studies investigate factors influencing limited involvement in development process by women such one that conducted in South Africa's semi and rural areas The influence of government development policy, education and cultural values on rural women was also investigated. The results suggested that the majority of the women in rural areas are illiterate. These women have been involved in development related work without knowing it, because they lack initiatives, innovations, self-reliance attitudes and they are isolated, not exposed to information and are marginalized

through the non-interactive government development policies. These symptoms reflect a lack of structured development strategy to create needed opportunities for women. All these are a result of high rate of illiteracy, unemployment, poverty and malnutrition. In other words; the development approach itself has failed them by not being able to enhance their welfare. According to (Nilesh B. Gajjar, 2017), Women Empowerment refers to increasing the spiritual, political, social educational, gender or economics strength of individuals and communities of women. The World Bank says, 'Empowerment is the process of increasing the capacity of individuals or groups to make choices and to transform those choices into desired actions and outcomes. Many Obstacles facing Women Empowerment including: Gender discrimination, Lack of Women Education, Low mobility, Marriage in same caste and child marriage. According to (Care International, 2018), community economic empowerment is strengthening the ownership of factors of production, strengthening the mastery of distribution and marketing, strengthening the community to obtain adequate salary or wages, and strengthening the community to obtain information, knowledge and skills, which must be done in multiple aspects, both from the aspect of the community itself as well as aspects of its policies. Empowerment is a breakthrough road that will accelerate the transformation of non-economic social activities into an economic enterprise. Efforts to women empowerment can be said as an effort to increase women's ownership and control of economic and noneconomic resources. To realize the development program in the context of empowering women, the following can be done (Muhajir, 2005): (1) Priority in rural women's groups because of their potential that has not been utilized optimally. This strategy is expected to be a stimulant for acceleration and economic recovery, namely the provision of capital facilities for women who manage both small and medium-sized businesses, especially in rural and coastal areas. Circulation of money in all corners of the country in sufficient quantities is expected to increase the economic activities of women in the countryside and help women to enter the market through exchange activities that using money. (2) The provision of capital for women's groups and the amount of accessible capital facilities are expected to be sufficient. (3) Improving rural communication facilities and infrastructure that support the expansion of access to new information that is more accurate for women of small and medium entrepreneurs. (4) Optimizing the role of all female human resources is expected to further accelerate economic recovery. The increase of women in the market is expected to increase the contribution of women in the family economy to improve household economic resilience and the level of community welfare in addition to improving the quality of life for. This study focused on the role of the program in empowering rural women through the economical interventions, to present applicable and scientific visions that can contribute in their economic empowerment.

1.2 Problem Statement and Justifications:

North Kordofan State has under gone to several waves of natural disasters such as droughts (1984-1991) followed by

desertification, and recently remarkable climate changes observed resulted in fluctuation of rain fall rates, that negatively influence the productivity and production of agriculture and livestock, in addition to displacement phenomena of people from South Kordofan State, due to civil conflicts. Women are considered as the families' backbones especially in rural areas, because they have been shouldering a heavy burden, due to the migration of the men for mining, seeking for new earning opportunities to keep and improve their families' livelihoods. There were many developmental interventions seeking to improve rural women economic and social statuses in order to strength and empower them to face life challenges, from those interventions was the Livestock Marketing and Resilience Program LMRP. This research outlined some question; did the program manage to increase beneficiaries' access to financial services? did the program manage to increase beneficiaries' incomes? And did the program manage to improve beneficiaries' financial statuses?

1.3 Objectives of the Study:

The overall objective of this study is to identify the real role of the program in empowering rural women through the economical interventions, in addition to achieve sub - objectives including:

1. To present an applicable and scientific-based vision, that can contribute in the economic empowerment of rural women.
2. To draw the attention of the stakeholders in public & private sectors towards rural women issues.

2. MATERIALS AND METHODS

2.1: Study Area:

North Kordofan State is located in central Sudan between 27° and 32° east longitude and 12.15 -16°43` N latitudes. North Kordofan is administratively divided into eight localities; Sheikan, Bara, West Bara, Alrahad, Umrwaba, Um Dam, Soderi and JabratAlsheikh (M.A.O and FNC,2017) figure (2.1). Population of North Kordofan is 2920.99 persons, with an annual growth rate of 2.9%, of which 15% are urban and 65% are rural Central Bureau of Statistics, (CBS, 2008). Agriculture and grazing are the dominant economic pattern in the state.

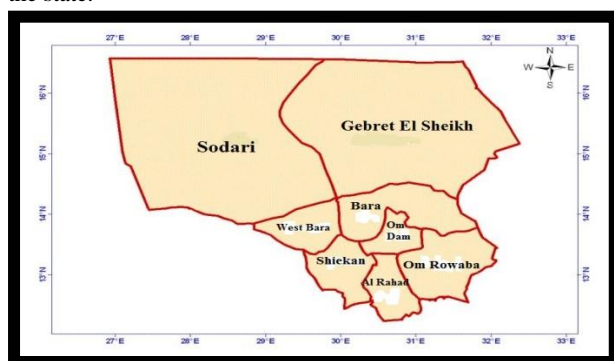


Figure (2.1): North Kordofan State Localities

Source: (LMRP, 2021)

3. Methodology:

The study followed the Integrated Geographical Vision approach for hypothesis discussion, SPSS program and Chi square method for the data analysis.

3.1: The Integrated Geographical Vision Approach:

According to (Artz and Jim Baumann, 2009), The Geographic Approach is a new way of thinking and problem solving that integrates geographical information in to how we understand and manage our planet. This approach allows us to create geographic knowledge by measuring the earth, organizing this data, and analyzing and modeling various processes and their relationships. Also to apply this knowledge to the way we design, plan and change our world. Solving problems using geographic approach is not new. It is fundamental to the way geographer, study, analyze our world. The concepts is perhaps bet articulated by IanL.Mc Harg in the 1969 book, Design with Nature, in which he details the philosophical context for managing human activities within natural and cultural landscapes. As a methodology the geographical approach is used for location-based analysis and decision making. GIS professionals typically employ it to examine selected geographic datasets in details, which are combined for the comprehensive study and analysis of spatial problems. This methodology parallel to the well-known scientific methods and includes a research-focused, interactive process for examining diverse datasets and uncovering potential solutions. The approach comprised five steps: Step 1; Ask: Approaching a problem geographical involves, framing the question from a location-based perspectives, what is the problem you are trying to sole or analyze, and where is it located? Step 2; Acquire: After clearly defining the problem, it is necessary to determine the data needed to complete your analysis and ascertain where that data can be found or generated. Step 3: Examine; you will not know for certain whether the data you have acquired is appropriate for your study until you thoroughly examine it. This includes visual inspection, as well as investigating how the data is organized, how well the data corresponds to other datasets and the rules of the physical world (its topology), and the story of where the data came from (its metadata). Step 4: Analyze; The data is processed and analyzed based on the method of examination for analysis you choose, which is dependent on the results you hope to achieve. Step 5: The results and the presentation of the analysis are important parts of the Geographical Approach. The can be shared through reports, maps, tables and charts and delivered in printed form or digitally over network or on the web.

3.2 Data Collection:

The study depended on primary data using questionnaires introduced to the (204) households, in addition to interview, observation and focus group discussion. Secondary data were collected from IFAD and program reports, in addition to the internet sources.

3.2.1 Sampling Technique:

The sample size was (204) respondents selected using simple random sampling technique.

3.2.2 Study Area Selected:

The field survey was carried out in the study area in North Kordofan State, specifically in four LMRP targeting localities namely, Umrwaba, Alrahad, Sheikan and Bara.

3.2.3 Selected Villages:

The program covered (237) villages in North Kordofan State. (60) Villages were selected for the study. Villages comprised large, medium and small ones from 18 administrative units table (3.1).

3.2.4 Selected Households:

Targeted population was (8100) HHs. Selected households were (204) representing 2.5%.

Table (3.1) Sample Selected (Admin Units, villages and Households)

Locality	No of Admin Unit	No of Villages	No of targeted HHs	No of selected HHs
Sheikan	7	18	2908	54
Umrwaba	3	18	1952	54
Alrahad	4	12	1809	48
Bara	4	12	1431	48
Total	18	60	8100	204

*It is considered that selected villages witnessed different interventions from the three components. Households were selected randomly, three from Sheikan and Umrwaba locality's villages and four from Alrahad and Bara localities to represent the sample.

4 Results and Discussion

4.1: Households Demographic Characteristics

The study has dealt with some household demographic variables such as family size, age, education that are considered as important factors affecting household performance in terms of production capacity as most of social studies referred to them. The study investigates the role of the program (LMRP) in empowering rural women, therefore the respondents were only women.

4.1.1: Distribution due to Ages:

Age is one of the most important elements in such studies, because it has strong correlation with income earning opportunities and others. Results showed that the range of ages were: 37.7% for category (30-39) Years old, 30.9% for (20-29) Years, 24.0% for (40-49) Years, 5.9% for (more than 50) Years, and 1.5% for (less than 20) Years Table (3.1). Result indicated that 94.1% of respondents were in age groups that represent the youth period (20-49) years old. This means that the majority of the respondents were in ages which are socially and economically active to meet the objectives of the study. These results go in a line with study conducted by (Mahmoud *et al.*, 2008). "This group represents the youth period in which human beings are much active and wish to change for better living conditions".

Table (3.1): Average of Ages of the Respondents in Targeted Localities

Age interval in years	Frequency	Percent %
Less than 20 years	3	1.5
20-29 years	63	30.9
30-39 years	77	37.7
40-49 years	49	24.0
50 years and more	12	5.9
Total	204	100.0

Sources :(Author, 2022)

4.1.2: Distribution due to Family size:

Results showed that sizes of family of respondents were: 20.3% for (three) persons, 15.2% for (six) persons, 13.7% for (four & seven) persons, 12.3% for (five) persons, 11.3% for (eight) persons, 9.3% for (ten and more) persons 8.3% for (nine) persons, and 5.9% for (two) persons respectively figure (3.1). Results indicated that the average was 8 people, which were considered as suitable enough as labors to facilitate the positive engagement of families in agriculture and animal production activities. Results go in line with study conducted by Meinzen *et al* (2019) "Evidence shows that women farmers are less likely to adopt sustainable and resilient farming approaches due to their limited access to necessary resources, including land, labour, information and technology, and their lower levels of literacy, capital accumulation and weaker access to credit".

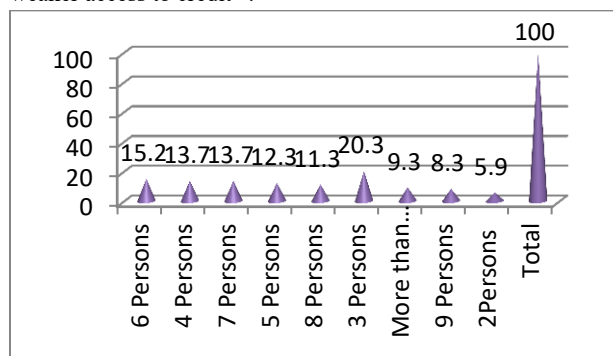


Figure (4.1): Family's Sizes of the Respondents

4.1.3: Distribution due to Education Level:

The study findings revealed that (49.5%) received primary education, (31.4%) had attended secondary schools, (6.9%) had acquired university education and (4.4%) gained religious education (Khalwa), which indicates that (92.2%) of respondents were educated at different levels, while illiteracy rate among respondents was low (7.8%). Such findings of high education in the study area, facilitates the knowledge acquisition processes regard to transmission of extensional messages and the adoption of technological packages, in addition to that, it facilitates women to shoulder responsibilities and play vital roles in their communities, figure (3.2). These results agreed with what had been said by

(Desai, 2010) “education had been regard as a key to women’s empowerment for its ability to raise awareness and open possibilities as well as link to economic growth and children health”.

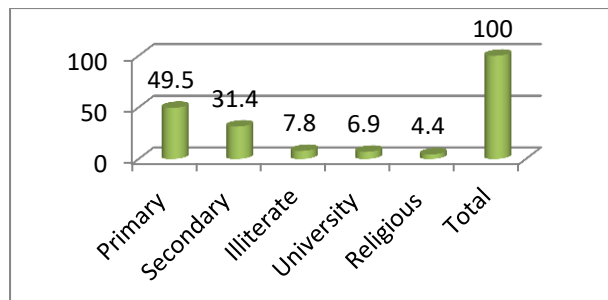


Figure (3.2): Education levels of the Respondents

4.2: Distribution due to Income Levels of Respondents before LMRP Interventions:

The study findings revealed that the monthly average of income gained by the respondents before the program intervention ranged between: 46.6% for (Less than 10) thousands, 32.8%, (10 -20) thousands, 16.2% for (21-30) thousands, 2.9% for (31-40) thousands, 1.0) for (41-50) thousands, and (0.5%) for (more than 50) thousands respectively figure (3.3). The result indicated that the program targeted the most vulnerable and economically active persons.

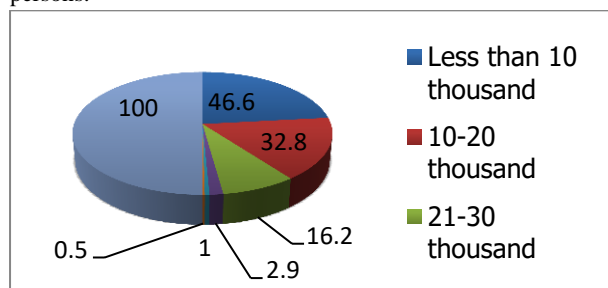


Figure (3.3): Incomes levels before LMRP Interventions

4.2.1: Adequacy of Incomes:

The result findings about adequacy of the monthly gained incomes to answer respondent’s daily livelihood needs, revealed that, (53.4%) of respondents said that the monthly incomes were adequate to answer their livelihood needs, while (46.6%) mentioned that it was in adequate, figure (3.4).

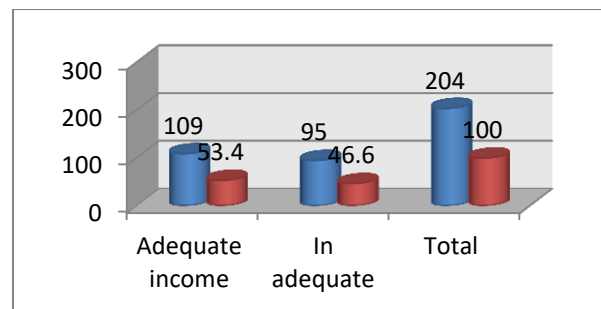


Figure (3.4): Adequacy of Incomes before LMRP Interventions

4.2.2: Strategies Adopted to Mitigate Incomes Inadequacy

Study findings Showed that respondents had adopted different strategies to mitigate incomes inadequacy to answer their daily livelihoods included: 55.8% borrowing from others, 24.2% cutting trees and making charcoal, 18.9% relative helps, and 1.1% Zakat department help figure (3.5). Results indicated that respondents depended on their own resources in finding solution, however they could engage in activities that might threaten the surrounding environment.

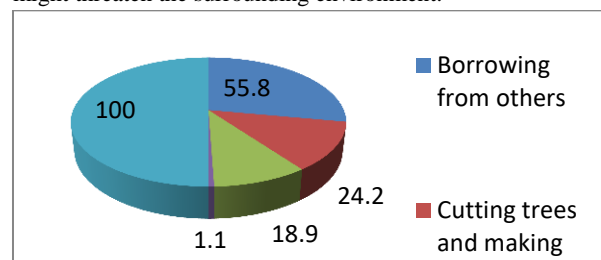


Figure (4.5): Strategies to Mitigate Incomes Inadequacy

4.3: Distribution due to Financial Services Access:

Result findings revealed that: 78.4% from respondents had an access to financial services figure (3.6), while financial services access per localities ranged between 79.6% for Umrwaba, 79.2% for Alrahad, 77.8% for Sheikan, and 77.1% for Bara table (3.2). Results indicated that, there were no significant differences among localities.

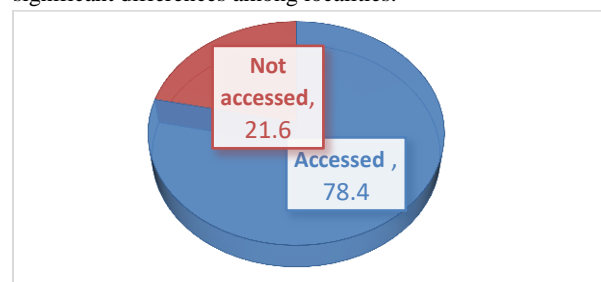


Figure (3.6) Financial Services Access

Table (3.2): Financial Services Access\Locality

Status	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Accessed	37	77.1	38	79.2	42	77.8	43	79.6	160	78.4
Not accessed	11	22.9	10	20.8	12	22.2	11	20.4	44	21.6

Total	48	100	48	100	54	100	54	100	204	100
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Source: (Author, 2022)

4.3.1: Distribution due to Types of Financial Services:

The study findings showed that: 49.4% of respondents received internal lending, 7.5% received external type, while 43.1% received mixed type (internal and external). Figure (3.7) Per localities Sheikan locality was the pioneer in internal type (83.7%), while Umrwaba was in front in the external type (18.6%), and Alrahad stood in front in the mixed type (60.5%) table (3.3). Results indicated that, Umrwaba locality was the pioneer regard to the financial coverage among the targeted localities, by Ebdaa bank, Algarrah, and ABSUMI MFIs. These institutions coverage represented (71.6%) from the total coverage of the program targeted area.

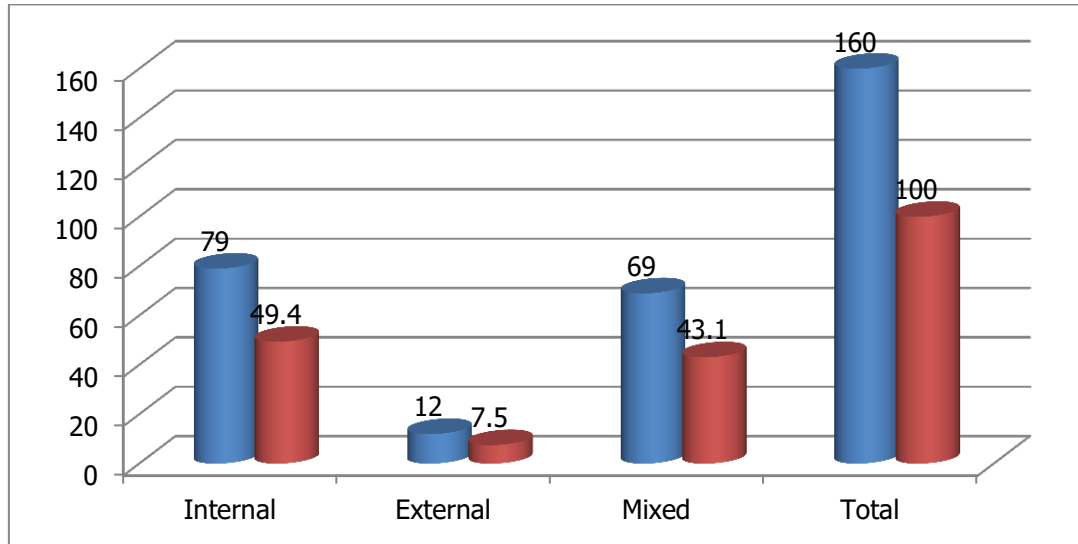


Figure (3.7): Types of Financial Services

Table (3.3): Types of Financial Services/Locality

Type of Finance	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Internal	20	54.1	20	34.2	29	67.4	10	23.3	79	49.4
External	2	5.4	2	5.3	0	0.0	8	18.6	12	7.5
Mixed	15	4.5	15	60.5	14	32.6	25	58.1	69	43.1
Total	37	100	37	100	43	100	43	100	160	100

Source: (Authors, 2022)

4.3.2: Internal Financial Services Access:

The study results revealed that, (72.5%) from the respondents received loans from their saving funds figure (3.8). Frequencies of loans were (44.6%) for category twice, (24.3%) for more than three times, (20.3%) for once, (10.8%) for the third times figure (9). Result indicated self-dependency of respondents on internal lending first, and then qualifying the requirements for linking with commercial banks and MFIs. Regard to the distribution of financial access per localities, Sheikan stood in front with (77.8%), then Alrahad (75%), Bara (72.9%), and Umrwaba (64.8%), table (3.4). Results indicate that, there is no significant difference, and that approved the program policy towards internal saving and lending.

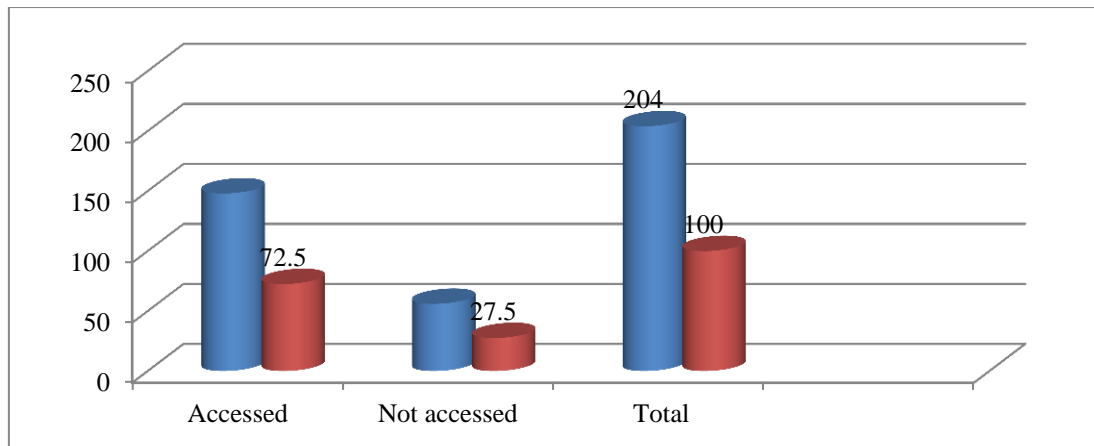


Figure (3.8): Internal Financial Services Access

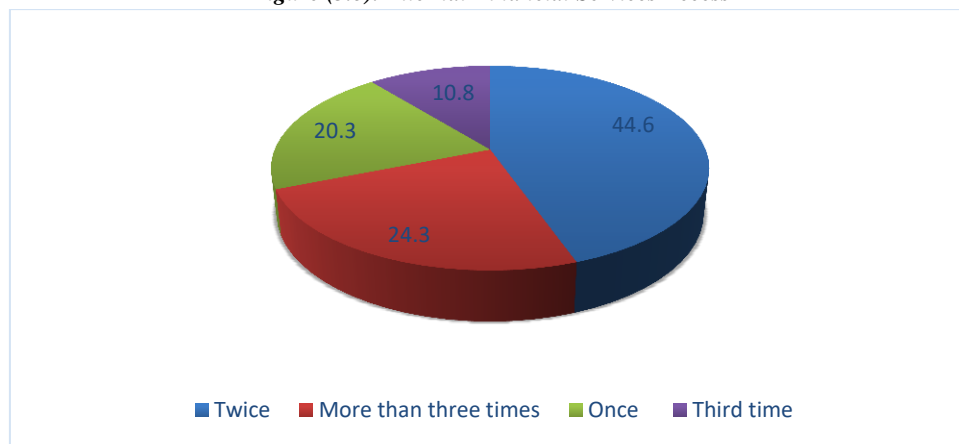


Figure (3.9): Frequencies of Internal Lending Received

Table (3): Internal Financial Services Access per Localities

Status	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Received	35	72.9	36	75	42	77.8	35	64.8	148	72.5
Not received	13	27.1	12	25	12	22.2	19	35.2	56	27.5
Total	48	100	48	100	54	100	54	100	204	100

Source: (Author, 2022)

4.3.3: Distribution due to the Investment of the Internal Lending:

The study findings showed that, 55.3% from the respondents invested in animal production and agriculture activities, 41.2% for commerce, while others activities represented 3.5% table (3.5). Results indicated that the main activities of the respondents were animal production and agriculture, because they are integrated activities, beside commerce.

Table (3.5): Investments of the Internal Lending

Activity	Frequency	Percentage%
Animal Production	64	43.2
Commerce	61	41

Agriculture	18	12.1
Social Occasions	2	1.4
Education disbursement	2	1.4
Treatment disbursement	1	0.7
Total	148	100

Source: (Author, 2022)

4.3.4: External Service Access:

Results findings revealed 39.7% from respondents only had an access to finance from the commercial banks or the Micro Finance Initiatives (MFIs).The decreased percentage referred

to: 79.4% for difficulty of procedures, 6.8% for increased inputs prices due to the inflation, 4.6% for existing finance at the village during the implementation of finance, 4.6% concerning the program which focused on lambs fattening for export for the specialized saving and credit groups only, and 4.6% for fear from borrowing money table (3.6) Result go in line with what had been reported by FAO. (2021). on the legal report “Women face challenges in accessing financial services, markets and extension services”.

Table (3.6): Reasons behind Inability of Respondents to Receive Financial Services

Reason	Frequency	Percentage %
Difficulty of procedures	35	79.4
Increased inputs prices (inflation)	3	6.8
Existing finance at village level during financing periods	2	4.6
Focusing on Fattening practices	2	4.6
Fear from borrowing money	2	4.6

Table (3.7): Sources of the External Financial Services per Localities

Banks & MFIs	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Ebdaa Bank	0	0	17	100	8	57.2	9	27.3	34	42
Algarrah MFI	0	0	0	0	0	0	18	54.5	18	22.2
Family Bank	5	29.4	0	0	3	21.4	0	0	8	9.9
Meshkah	6	35.3	0	0	0	0	0	0	6	7.4
Saving Bank	6	35.3	0	0	0	0	0	0	6	7.4
ABSUMI	0	0	0	0	0	0	6	18.2	6	7.4
SRDC	0	0	0	0	3	21.4	0	0	3	3.7
Total	17	100	17	100	14	100	33	100	81	100

Source: (Authors, 2022)

4.3.6: Distribution due to Loans' Volumes: s

The study findings showed that, ranges of loans' volumes were: (32.1%), (25.9), (21.0%), (11.1%), and (9.9%) respectively figure (3.11). Results indicated declining rates of access to external financial services, and that attributed to the negative influence of many external factors and challenges included: COVID 19, increased inflation rates, and shortage of cash liquidity. This results go in line with what had been reported by IFAD.

(IFAD. 2022)

Total 44 100

Source: (Authors, 2022)

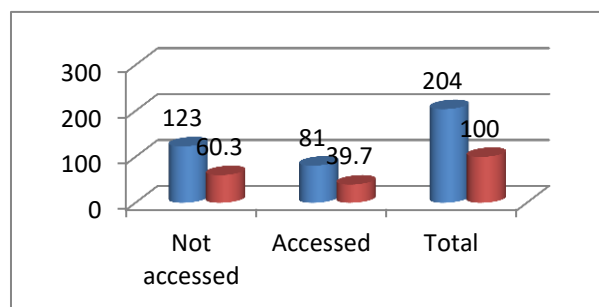


Figure (3.10): External Financial Services Access

4.3.5: Distribution due to Sources of the External Financial Services:

The study findings revealed that, Ebdaa Bank stood in front among commercial banks per (42.0%), while Algarrah was first in MFIs per (22.2%). Result indicated that the coverage depends on the availability and distribution of the financial institution in the targeted localities; hence Ebdaa Bank has branches in Umrwaba, Alrahad and cover Sheikan from Alrahad branch.

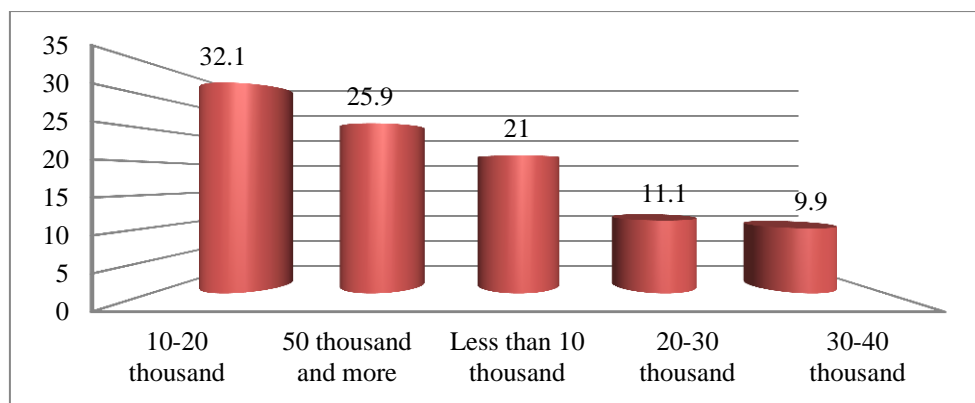


Figure (3.11): Distribution of Loans' Volumes

Table (3.8): Loans' Volumes per Localities

Loan's Volumes	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
10-20 Ts	0	0	11	44	3	50	3	9.1	17	32.1
50 Ts and more	8	47	13	52	0	0	5	15.2	26	25.9
Less than 10 Ts	0	0	0	0	0	0	9	27.3	9	21.0
20-30 Ts	0	0	0	0	8	0	8	24.2	8	11.1
30-40 Ts	9	53	1	4	3	50	8	24.2	21	9.9
Total	17	100	17	100	14	100	33	100	81	100

Source: (Author, 2022)

4.3.7: Investment of the External Lending:

According to the program document, the portfolios of finance from the commercial banks and Micro Finance Initiatives MFIs were allocated to be invested in lambs and calves fattening for export only.

4.3.8: Distribution due to the Contribution of the External Lending in Improving Respondents' Financial Statuses:

The study findings showed that 93.8% from the respondents said that the external loans they received had contributed substantially in improving their financial statuses figure (3.12). Umrwaba and Alrahad localities stood in front with (100%), table (3.9).

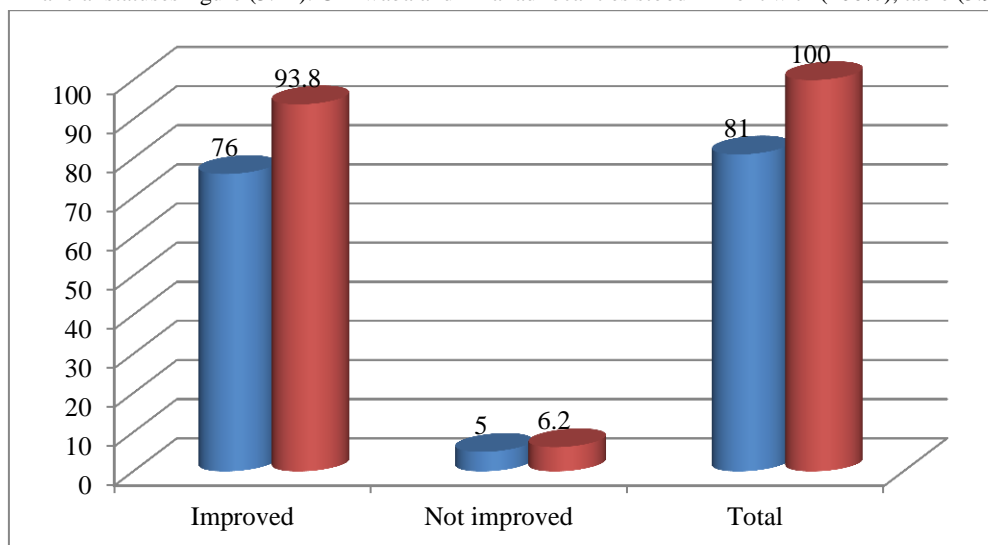


Figure (3.12): Contribution of the External Lending in Improving Respondents' Financial Status

Table (3.9): Contribution of the External Lending in Improving Respondents' FSs

Financial Status	Bara	Alrahad	Sheikan	Umrwaba	Total
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	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Improved	14	82.4	17	100	12	66.7	33	100	76	93.8
Not Improved	3	17.6	0	0	2	33.3	0	0	5	6.2
Total	17	100	17	100	6	100	33	100	81	100

Source: (Author, 2022)

4.4: Distribution due to Incomes Levels of Respondents after LMRP Interventions

The Study findings Showed that the monthly average of incomes gained by the respondents after the program intervention ranged between: 33.8% for (21-30) thousands 30.4% for (10-20) Ths, 15.2% for (31-40) Ths, 7.8% for (less than 10) Ths ,6.9% for (41-50) Ths, and 5.9% for (more than 50) Ths category respectively table (3.10). Result indicated that the program interventions managed to increase the gained incomes per (38.8%) for targeted groups of the most vulnerable and active persons, and (5.4%) for the rich ones.

Table (3.10): Incomes Level of respondents after LMRP interventions

Income per SDG/month	Frequency	Percentage (%)
21-30 thousand	69	33.8
10-20 thousand	62	30.4
31-40 thousand	31	15.2
Less than 10 thousand	16	7.8
41-50 thousand	14	6.9
More than 50 thousand	12	5.9
Total	204	100.0

Sources: (Authors, 2022)

4.5: Contributions of LMRP in Improving Respondents' Financial Statuses:

Results revealed that 65.7% from the respondents declared that the program interventions substantially contributed to improve their financial status, figure (3.13). While 34.3% disagreed, and attributed that to different reasons included: Decreased financial access, short period of the program (mandate), decreased loan ceilings, focusing on lambs fattening practices, and fear from borrowing money table (3.11). Results revealed different integrated reasons institutionally related to the financial institutions and the program, and social factors concerning the beneficiaries themselves.

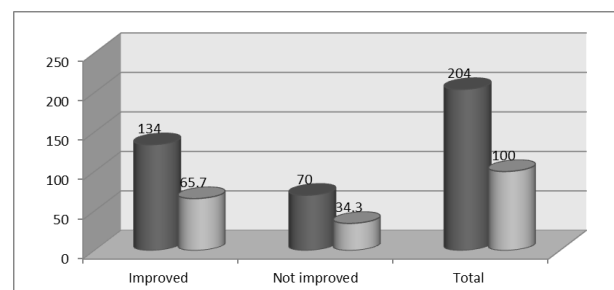


Figure (3.13): Contribution of LMRP in Improving Respondents' Financial Statuses

Table (3.11): Reasons behind Inability of LMRP to Improve Respondents' Financial Statuses

Reasons	Frequency	(%)
Decreased financial access	14	20.0
Short period the of program	6	8.6
Fear from borrowing money	2	2.9
Decreased loan ceilings	1	1.4
Focusing in lambs fattening practice	1	1.4
All	46	65.7
Total	70	100

Sources: (Authors, 2022)

4.6: Distribution due to Constrains Faced LMRP Interventions and Proposed Solutions

Respondents categorized constrains that faced the program to empower rural women in four categories comprised; 84.8% decreased financial access, 9.3% decreased access to solar energy and LPG,4.9% domination of man (traditions and norms) and 1.0% increased illiteracy rates among women, figure (14). Results indicated that the economic empowerment is the driving factor to achieve rural women's empowerment. Regard to localities, Umrwaba locality had a remarkable score regard to decreased financial access 96.2% table (3.12), despite the availability of the most potential financial institutions namely: Algarrah, ABSUMI, and Ebdaa bank, and that attributed to the repeating of finance on one village, and that was an indication to the weak networking and communication between the program officers and the financier. Results go in line with (IFAD, 2022).“They identified some internal difficulties for not extending enough finance to SCGs, including shortage and weak staff, shortage of liquidity, poor logistics” .Regard to the proposed solutions

respondents results revealed : 44.7% Capacity building, 24.4% financial access, 10.5% increase women's economical role, 9.3% raising environmental awareness & participation in activities, 5.8% increase women's participations, and 5.3% improve women's social status, and that indicated the main mainstays in achieving rural women's' empowerment were women themselves and their economy figure (3.15).

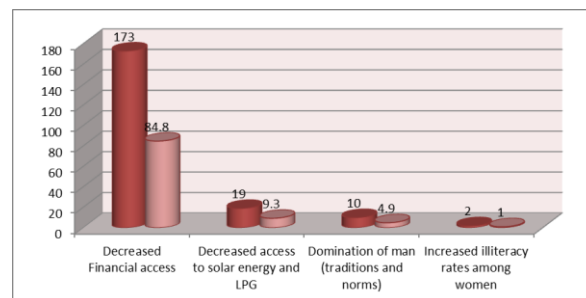


Figure (3.14): Constrains Faced LMRP Interventions

Table (3.13): Constrains Faced LMRP Interventions / Localities

Constrain	Bara		Alrahad		Sheikan		Umrwaba		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	freq	%
Decreased financial access	27	56.3	44	91.7	50	92.5	52	96.2	173	84.8
Decreased access to solar energy and LPG	13	7.1	3	6.2	2	3.7	1	1.9	19	9.3
Domination of man	7	14.6	1	2.1	1	1.9	1	1.9	10	4.9
Increased illiteracy rates among women	1	2.1	0	0	1	1.9	0	0	2	1
Total	48	100	48	100	54	100	54	100	204	100

Source: (Author, 2022)

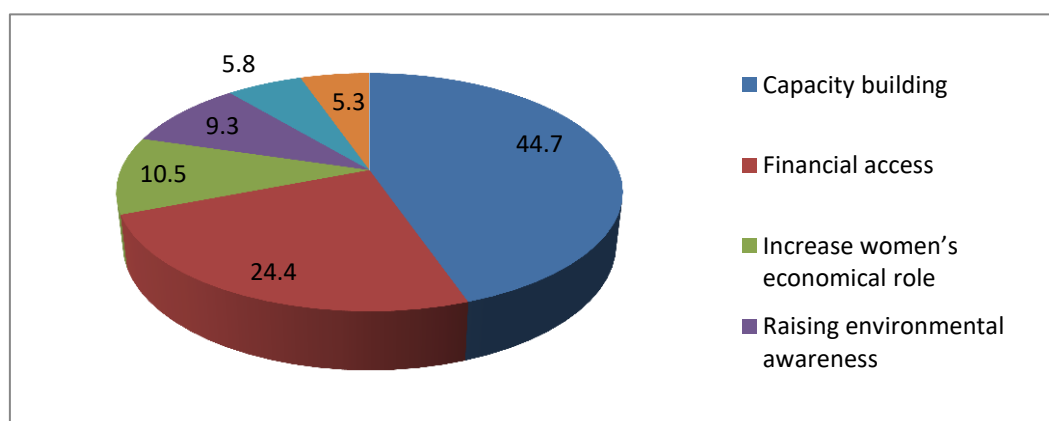


Figure (3.15): Proposed Solutions

Testing of Hypothesis:

This sub-chapter tested the study hypothesis using Chi – Square testing tool.

Hypothesis: LMRP Managed to Empower Rural Women Economically

The variables that indicated economic empowerment were: Financial access, incomes increasing and financial statuses improvement.

CONCLUSION and RECOMMENDATIONS

The strategy of LMRP to achieve its objectives based on the integration between the program components. This integration is expressed by the provision of none financial and financial services. The none financial services including: Selection and organization of targeted communities by formation of communities' structures mainly Saving and Credit Groups

(SCGs), provision of different and numerous training packages on credit (saving & lending) practices, developing business plans, fattening good practices and technologies, in addition to raising beneficiaries' awareness towards the environmental issues and practices. These services built up beneficiaries' skills and predisposed them for linking with micro financial institutions as commercial banks and MFIs for providing external finance after qualifying the on conditions such as registration of SCGs, opening bank account, besides depositing amount of saving. The study showed that the hypothesis of independent variables like financial access, increasing incomes, and improving financial statuses were satisfied, hence the study revealed results as: The targeted groups were of youth category that is considered as leaders of change for better living conditions for their communities. Averages of family's sizes were eight years old, which were credit for families as labors. High educational levels facilitated the capacity building processes. Before LMRP

intervention about half of respondents' incomes were less than 10 thousand and that indicated the program targeted poor women. Respondents adopted different methods to mitigate the inadequacy of incomes, despite some might threaten the surrounding environment as lumbering (cutting trees to produce charcoal). 78.4% from the respondents had an access to financial services from the different types of finance. 39.7% from the respondents only had an access to external finance and they attributed that to different integrated internal and external factors. Distribution of external finance among targeted localities showed significant differences, which attributed to the geographical distribution of microfinance institutions in the state. Regard to external finances resources, Ebdaa bank stood in front among commercial banks, while Algarrah was pioneer among MFIs, and Umrwaba locality stood in front among targeted localities. Loans' volumes were negatively affected by the inflation phenomena. External finance was invested in lambs fattening according to program document, while internal finance was invested in different activities such as agricultural and animal productions activities in addition to commerce and other activities. The study concluded that, the program interventions contributed in increasing respondent's incomes per 38.8% for poor and economically active beneficiaries and per 5.4% for the rich ones, and in improving beneficiaries' financial statuses per (65.7%) which indicated that the program managed to empower beneficiaries economically. The study revealed that the main challenges faced rural women's empowerments were: Decreased financial services access represented (84.8%), decreased access to solar energy and LPG services represented (9.3%), domination of man represented (4.9%), in addition to increased illiteracy rates among women represented (1.0%). The study recommended for the necessity of proper selection and application of the appropriate gender approach, in addition to the establishment of: Financial portfolio including the potential financiers at state level as commercial banks and MFIs chaired by State ministry of finance. Public Private Partnership (PPP) unit at the state level. Departments at relevant ministries to shoulder the responsibility of leading the developmental activities after the phase out of the developmental programs. Community Investment Structures (CISs) at the administrative unit, locality, and state levels. At communities' level the study recommended for Capacity building, increasing microfinance services access, and increasing women's participation opportunities.

References

1. Alam, M. S. (2010). Women Education, Empowerment and Socioeconomic Development: A Theoretical Framework. In International University Social Responsibility Conference and Exhibition. Kuala Lumpur, Malaysia.
2. Amin, R., Beckers, and Bayes, A. (1998). NGO Promoted Microcredit Programs and Women's Empowerment in Rural Bangladesh :Quantitative and Qualitative Evidence. The Journal of Developing Areas,32[2], pp.221-236.
3. Annan, K. (2006). In: Kristof, N. and WuDunn,S. (2009).ed., Half the Sky,1sted.NewYork:Alfred A.Knopf,p.183.
4. Artz and Jim Baumann. (2009). What is the Geographical approach? Environmental System Research Institute (ESRI), Redlands, California, USA. www.esri.com.
5. Care International. (2018). Women's Economic Empowerment Strategy. Retrieved from https://insights.careinternational.org.uk/media/k2/attachments/CARE-Womens-Economic-Empowermentstrategy_2016.pdf.
6. CBS. (2008). Central Bureau of Statistics. 5th Sudan Population and Housing Census 2008 - IPUMS Subset.
7. Desai M. (2010). United nation development programme, Human development report, Research paper.
8. DFID (2007). Gender Equality Action Plan 2007-2009: Making Faster Progress to Gender Equality. [online] Department for International Development.
9. FAO. (2021). Legal Brief 7: Supporting an enabling Legal Environment for Women's Empowerment in Food and Agriculture.
10. FAO. (2021). Women's Leadership and Gender Equality in Climate Action and Disaster Risk Reduction in Africa. Accra. FAO.<http://doi/10.4060/cb7431en>.
11. Felicia &Rebecca (2015). Women's Empowerment through Microfinance Self – Help Groups (SHG) : A Systematic Literature Review. B.Sc study. School of Business and Social Sciences. Aarhus University. 2015.
12. Freire, P. (1974). Pedagogy of the Oppressed. New York: Herder and Herder.
13. Goetz, A. and Gupta, R. (1996). Who takes the credit? Gender, Power, and Control over loan use in rural credit programs in Bangladesh. World Development,24[1], pp.45-63.
14. Hadi. (2001). Effects of the Productive Role of Bangladeshi Women on their Reproductive Decisions. Asia-Pacific Population Journal, 16(4), 17–29.
15. Hashemi, S., Schlarman Riley, A. (1996). Rural credit programs and women's empowerment in Bangladesh. World Development,24[4], pp.635-653.
16. HSRC. (2009). Factors Limiting Women's Involvement in Development: Lessons from Enthusing, South Africa. Human Sciences Research Council (HSRC), Pretoria, South Africa. An International Multi-Disciplinary Journal, Ethiopia Vol.3(4), July, 2009 (Pp.13-30).
17. IFAD. (2014). Final Project Design Report (PDR) for LMRP. IFAD. Report No 3539-SD. Near East, North Africa and Europe Division Programme Management Department.

18. IFAD. (2018). Rural Women's Leadership Programme in grass- roots organization: a case study in Nepal. www.ifad.org.
19. IFAD. (2021). Outcome Assessment Report for "Community led Natural Resources Management and Enhanced Adaptive Capacities" (Component II), LMRP, Sudan.
20. IFAD. (2022). Assessment of Saving and Credit Groups (SCGs) Modalities. Case study for Livestock Marketing and Resilience Program (LMRP).
21. IFAD. (2022): Empowering Rural Women: The Joint Program for Accelerating Progress towards Rural Women's Economic Empowerment (JPRWEE).
22. IFAD. (2022): LMRP, Final Program Completion Report (PCR). Consultant: DR. Abdelatif Ahmed Mohamed Ijani.
23. ILO. (2013). Empowering Women for Peace and Recovery in East Sudan. (www.ilo.org).
24. Janssens, W. (2010). Women's Empowerment and the Creation of Social Capital in Indian Villages. *World Development*, 38(7), 974–988.
25. Kabeer. (1999). Resources, Agency, Achievements: Reflection on the Measurement of Women's Empowerment. *Development and Change*, 30[3], pp.435-464.
26. Kabeer. (2001). Conflicts Over Credit: Re-Evaluation the Empowerment Potential of Loans to Women in Rural Bangladesh. *World Development*, 29[1], pp.63-84.
27. Khan, R. and Noreen, S. (2002). Microfinance and Women Empowerment: A case study of District Bahawalpur (Pakistan). *African Journal of Business Management*, 6[12],pp. 4514 - 4521.
28. M.A.O and FNC. (2017). Ministry of Agriculture, Livestock and Rural Development and Forest National Co-operation. Joint report on legitimate social Insurance. For the reconstruction of the gum belt. Government Secretariat Hall - Elobied - North Kordofan 21-Aug-2017Social Security.
29. Mahmoud, T. E., Makeen M. A. and Elnow M. (2008). Marketing of Agricultural Products in North Kordofan State: Current Situation and Future Prospect. North Kordofan State Ministry of Finance and Economy.
30. Malhotra, A and Mother. (1997). Do schooling and work power women in developing countries? Gender and domestic decisions in Srilanka. *Socio logical Forum*, 12[4], pp.599-630.
31. Malhotra, A. Schuler, S. and Boender, C. (2002). Measuring Women's Empowerment as a variable in International Development. *World Bank, Poverty and Gender: New perspectives*, pp3-58.
32. Malhotra, A. Schuler, S. and Boender, C. (2002). Measuring Women's Empowerment as a variable in International Development. *World Bank, Poverty and Gender: New perspectives*, pp3-58.
33. Maruod E. Maruod, Elrashied E. Elkhidir and Elkhalil E. Breima (2012). Women Empowerment through Self-help Groups in Sheikan Locality, North Kordofan State, Sudan. *Global journal of multidisciplinary and applied sciences* Available online at www.gjmas.com ©2014 GJMAS Journal-2014-2-1/5-8 ©2014 GJMAS.
34. Mayoux, L. (1998). Women's Empowerment and Micro-Finance Programmes: Strategies for Increasing Impact. *Development in Practice*, 8(2), 235–241. Retrieved from <https://www.jstor.org/stable/4029310>.
35. Meinzen-Dick, R., Rubin, D., Elias, M., Mulema, A.A. & Myers, E (2019). Women's Empowerment in Agriculture: Lessons from Qualitative Research. IFPRI Discussion Paper 1797. Washington, DC, International Food Policy Research Institute.
36. Montes, C., Bayona, G., Cardona, A., Buchs, D. M., Silva, C. A., Morón, S., Valencia, V. (2012). Arc-continent collision and orocline formation: Closing of the Central American seaway. *Journal Of Geophysical Research*, 117, 1–25.
37. Muhajir, D. (2005). Negara dan Perempuan: Reorientasi Kebijakan Publik. Yogyakarta: Media Wacana Kerjasama PenerbitGraha Guru. Nugroho. 2008. Gender dan Strategi Pengarus-utamaannya di Indonesia. Yogyakarta: Pustaka Pelajar.
38. Narayan, D. (2005). *Measuring Empowerment*. Washington D.C: World Bank.
39. Nilesh B. Gajjar, (2017). Women Empowerment in India: Issues and Challenges. *International Journal of Research in all Subjects in Multi Languages*. Vol. 5, Issue: 12, December: 2017 (IJRSML) ISSN: 2321 – 2853.
40. Oxaal, Z., & Baden, S. (1997). Gender and empowerment: definitions, approaches and implications for policy. Brighton: Institute of Development Studies University of Sussex.
41. Prantiasih, A. 2014.Reposisi Peran dan Fungsi Perempuan. *Jurnal Pendidikan Pancasila Dan Kewarganegaraan*, 27(1), 1–6.
42. Pitt, M., Khandker, S. and Cartwright, J. (2006). Empowering Women with Microfinance: Evidence from Bangladesh. *Economic Development and Cultural Change*, 54[4], pp.791-831.
43. Resurrección, B.P., Bee, B.A., Dankelman, I., Park, C.M.Y, Halder, M., & McMullen, C.P. (2019). Gender transformative climate change adaptation:

- advancing social equity. Background paper to the 2019 report of the Global Commission on Adaptation. Rotterdam and Washington, DC.
45. Rubin, D and Sutz, P. (2021). Supporting an enabling Legal Environment for Women's Empowerment in Food and Agriculture. Legal Brief 7.Rome.FAO.[http:// doi.org/10.4060/cb Ben](http://doi.org/10.4060/cb Ben).
 46. S.D.A. (2022). Social Development Administration. North Kordofan State. Annual Reports.
 47. Schuler, S., Hashemi, S., Riley, A., and Akhter, S., (1996). Credit Programs Patriarchy and men's violence against women in rural Bangladesh. *Social Science & Medicine*, 43[12], pp.1729-1742.
 48. Sopandi, A. (2010). Strategi Pemberdayaan Masyarakat: Studi Kasus Strategi Dan Kebijakan Pemberdayaan Masyarakat di Kabupaten Bekasi. *Jurnal Kybernan*, 1(1), 41–56.
 49. Sumodiningrat, G. (1999). Pemberdayaan Masyarakat dan JPS. Jakarta: Gramedia Pustaka Utama.
 50. UN Women Africa, (2020). The Role of Rural Women in South Sudan to Economic Recovery in the face of COVID-19. Report. (On line). africa.unwomen.org.
 51. UN Women. (2015). Women and Sustainable Development Goals. UN Women Eastern and Southern Africa Regional Office UN Gigiri Complex, Block M, Ground Floor P.O. Box 30218-00100 Nairobi, Kenya.
 52. UN Women. (2022). Goal 5: Achieve Gender Equality and empower all Women and Girls. Sustainable Development Goals SDGS Report 2022. www.unwomen.org.
 53. UN Women. (2022). Progress on the Sustainable Development Goals: The gender snapshot 2022. UN Women's 2022 edition annual Gender Snapshot Report. www.unwomen.org.
 54. World Bank. (2021). Employment in agriculture, female. In: The World Bank Group. [Online]. Updated as at March 2021. [Cited 8 July 2021]. <https://data.worldbank.org/indicator/SL.AGR.EMP.L.FE.ZS>.