Women Participation in Poverty Alleviation and Rural Development Process in South Kordofan State: The Case of the Area Rehabilitation Scheme- Kadugli

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A Thesis Submitted In Partial Fulfillment of the Requirements for M.Sc (Agricultural Extension and Rural Development) Degree

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2003
Dedication

I dedicate this piece of work with a great love to poor women all over the World

Niveen
Acknowledgement

First I thank God for helping me to complete this piece of work.

My special thanks and acknowledgements are due to my supervisor Dr. Abdel Raouf Suleiman Bello for his continuous support, guidance advice and useful comments without which this work would not have been completed.

Sincere thanks and appreciation are extended to my dearest Colleagues for their encouragement and help during the study period.

My thanks are also due to the Ahfad University for women for the sponsorship of my study. I would like also to acknowledge the staff of school of Rural Extension, Education and Development for their assistance and encouragement.
Abstract

Various studies conducted on the experience of Sudan, have shown that poverty spread rapidly in the recent years in both rural and urban areas due to natural and man made disasters. These are include inter-alias, the civil war and environmental deterioration which consequently deepened the population’s poverty especially among rural women.

It is argued that, women in South Kordofan State in general and in Kadugli Governorate in particular, play enormous roles in improving the economic situation of their families. Hence, they contribute effectively in the processes of poverty reduction and development in their area.

This study was conducted to investigate women contributions in poverty reduction and their role in the process of development in South Kordofan State with particular reference to the Area Rehabilitation Scheme-Kadugli (ARS-K). The ARS-K was established by the UNDP in 1996 in collaboration with the government of the Sudan as an integrated rural development project. The project is an attempt to help rural communities to strengthen their local institutions and to improve their livelihood with emphasis on women. It aimed at rehabilitating selected villages in Kadugli Governorate with a view to establish a model to be replicated in rehabilitating other war-affected villages.

The main objectives of the study were to identify the different activities introduced to women and to know the different approaches adopted by the project and how they promote women participation.

To meet the objectives of the study, both primary and secondary data were collected and used. Primary data was collected through a field survey carried out in the study area using questionnaire, interviews, observation and
group discussion. The Statistical Packages for Social Sciences (SPSS) was used for data analysis.

The results obtained indicated that rural women carry different economic activities to cope with their hard situation (i.e. participating effectively in the development activities introduced by the project, including communal farming, animal raising, as well as other income generating activities such as, charcoal production, food, tea making and selling). Thus, they have considerable contributions to the processes of poverty reduction and community development.

Based on the results obtained, the study proposed some recommendations for poverty reduction and promotion of the development process in the study area. These include: the implementation of different activities by NGOs and government agencies to improve the families’ income, which could reflect on the improvement of their standard of living (i.e. communal farming, animal raising and production, etc). This will, eventually, promote sustainable development in the area. Another recommendation is to give more attention and consideration should be given to the different income generation activities carried out by women. However, more efforts should be directed towards women capacity building to enable them to participate effectively in the process of development in a sustainable manner.
لا يمكنني قراءة النص الأصلي باللغة العربية.
الثانية: البحث الأولية
البيانات جمعت من خلال الدراسة.

لقد تم فقدان الأستمارات باستخراج البيئية والمسيحة خلال ممر وجمعها، مجتمعة نقاش والملابس.

الاستحالة تمت الاجتماعية للعلم الحزام ببرنامج باستخراج بالحساب (SPSS)

أنتائج أوضح فكره في كأنها معتددة في جهادا، وضعها تحسين عدد الفقراء، ووضعها تحسين في المنشأة الزراعية، ووضعها تحسين في العمل إقامة للفضاء...

كما أن نتائج أوضح كذلك دور تخفيف الفكرة في الحدث الإقليمي، وتنوع وتبعد في الأفكار،...

وقد كتب جامع الأفكار والمنظمات الحكومية بين التعاون ضرورة التنمية، وتطبيق...

.دولة دژ
Table of Contents

Dedication I
Acknowledgement II
Abstract in English III
Abstract in Arabic V
Table of contents VII
List of Tables, XI
List of Maps and Figures XII
Chapter One: Introduction 1-6

1.1 Background Information 1

1.2 Statement of the problem 2

1.3 Research objectives 3
1.4 Research Hypothesis 4
1.5 Research Methodology and tools for data Collection 4
1.5.1 Methodology of the Study 4
1.5.2 Study area 4
1.5.3 Sample Size 4
1.5.4 Tools for Data Collection 5
1.5.5 Data analysis & Management 5
1.6 Research Limitations

1.7 Study Organization

Chapter Two: Literature Review

2.0 Introduction 7

2.1 Conceptualization of Poverty 7

2.1.1 Poverty definitions 7

2.1.2 Poverty Measurements 9

2.1.3 Causes of Poverty in Sudan 10

2.1.3.1 Causes of poverty in South Kordofan State (SKS) 11

2.2 Women, Poverty & Development 12

2.2.1 Women in Development Approaches 12

2.2.1.1 The Welfare Approach 13

2.2.1.2 The equity Approach 13

2.2.1.3 The Anti-poverty approach 14

2.2.1.4 The efficiency approach 14

2.2.1.5 The empowerment Approach 15

2.3 Rural Development Concepts & Approaches 15

2.3.1.1 What is Development 15

2.3.1.2 Rural Development (RD) Definitions 18

2.3.2 Rural Development Programs 20

2.3.2.1 Community Development Programs (CDP) 20

2.3.2.2 Agricultural Development Programs (ADP) 21

2.3.2.3 Integrated Development Programs (IDP) 21

2.3.2.4 Basic Needs Programs 22

Chapter Three: Socio-Economic Settings & Physical Environment of the Study Area

3.0 Introduction 25
3.1 Kadugli Governorate
3.1.1 Location
3.1.2 Climate
3.1.3 Population
3.1.4 Topography, Soil & vegetations
3.1.5 Water Sources
3.1.6 Economic activities
3.1.6.1 Agriculture
3.1.6.2 Livestock production
3.1.7 Social Services
3.1.8 Ongoing Development Efforts
3.1.8.1 Governmental Efforts
3.1.8.2 International Efforts
3.2 Area Rehabilitation Scheme – Kadugli (ARS-K)
3.2.1 Project Area
3.2.2 Project Aim & Objectives
3.2.3 Project Target Group
3.2.4 Means & Approaches
3.2.5 Project Achievements
3.2.6 Project Management

Chapter Four: Results and Discussion
4.1 The socio-economic Characteristics of the Respondents
4.1.1 Age
4.1.2 Marital Status
4.1.3 Educational Level
4.1.4 Respondents Sources of Income
4.1.5 Family Size & Conditions
4.2 Economic/Poverty Reduction Activities Carried by Respondents 54
4.2.1 Participation in ARS-K Activities 54
4.2.2 Jubraka Activities 58
4.2.3 Income Generating Activities (IGA) 60
4.3 The Impact of the ARS-K Activities on Women’s Situation in the Study Area 62
4.4 Women’s Opinion about the Project Activities 62

Chapter Five: Summary, Conclusion and Recommendations 64-67
5.1 Summary/Conclusion 64
5.2 Recommendations 67

Bibliography 68-71
Appendices 72-76
List of Tables

Table 3.1 Classification of South Kordofan State (SKS) Population by province and sex 32

Table 3.2 Classification of SKS’s by sex (urban/rural/nomadic) 32

Table 3.3 Classification of Schools by Level of Education and Sex 36

Table 4.1 Classification of Respondent by Age Group 46
Table 4.2 Classification of Respondent by Marital Status 47
Table 4.3 Classification of Respondent by Educational Levels 49
Table 4.4 Classification of Respondent by Sources of Income 51
Table 4.5 Classification of Respondents by Family Size 53
Table 4.6 Classification of Respondent by Participation in the ARS-K project 55
Table 4.7 Classification of Respondent by Types of Project Activities 56
Table 4.8 Classification of Respondent by Improvement in Family Standard of Living due to Participation in the ARS-K Activities 57
Table 4.9 Classification of Respondent by Possession of Jabareek (back yard garden) 58
Table 4.10 Classification of Respondent by Sources of Food 59
Table 4.11 Classification of Respondent by Practicing IGA to increase income 60
Table 4.12 Classification of Respondent by the carried out IGA 61
# List of Maps and Figures

<table>
<thead>
<tr>
<th>Map/ Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Map 1</td>
<td>South Kordofan State</td>
<td>26</td>
</tr>
<tr>
<td>Figure 3.1</td>
<td>General Administrative structure of ARS-K</td>
<td>45</td>
</tr>
</tbody>
</table>
1.1 Background Information

Various studies indicate that in Sudan as a developing country and especially in rural areas, there is a gap between family income and expenditure. Women in rural areas participate effectively to bridge this gap, through their work in agriculture, livestock and off-farm activities. Thus, they contribute and play important role in the improvement of the standard of living and socio-economic situation of their families by their contributions to family income, which will be reflected on the improvement of their standard of living.

Kadugli, as a part of the South Kordofan State is affected more by the recent civil war that resulted in a considerable destruction of the socio-economic situation of the Governorate and the spread of poverty among its population. It is argued that women in Kadugli area play a major role in family income generation through their participation in both sedentary and transhumant production systems as well as in marketing of different products (agricultural product, by-product and other income generating activities).

Due to the spread of poverty among Sudan’s rural population, and especially among rural women, various United Nations Agencies, Non-Governmental Organizations (NGOs) and other donors, provided different
types of aid. Such efforts include income generating activities (IGA), micro-
credit enterprises and investment, and some humanitarian aid, through the
introduction of rural development projects as an attempt to improve the
standard of living of mass population residing in the rural areas. Aiming at
making the process of their development self-sustained. This is beside the
considerable efforts and strategies developed by women to cope with their
hard situation and to reduce their poverty.

The Area Rehabilitation Scheme–Kadugli (ARS-K) is an integrated rural
development project, developed and implemented by the UNDP with
collaboration of federal ministry of finance in the Kadugli Governorate,
South Kordofan State in 1996 as one of the five ARS projects introduced in
the badly war-affected areas (four in southern Sudan) The project aims at
alleviating poverty among the state population (especially women) and to
rehabilitate the economy through promotion of agricultural production,
capacity building, and diversification of income generating activities. The
project adopted a bottom-up approach to attain sustainable development
among the targeted communities and to make their life self-sustaining.
Moreover, the project focuses and/or targets women as partners in different
activities to help them to improve their families’ situation.

1.2 Statement of the Problem
It is argued that the Area Rehabilitation Scheme- Kadugli contributed successfully to the improvement of the women situation in the area, by helping them in increasing their income. This has been accomplished through their participation in the project activities not only as beneficiaries but also as partners in the process of their development.

It is confirmed that the project had generated considerable positive impacts on the standard of living of the target population (i.e. improving their socio-economic situation) which resulted from the improvement of family income due to the women participation in the project activities.

This study is an attempt to investigate to what extend women’s role in improving the socio-economic situation of their families (i.e. poverty reduction) and the promotion of the rural development process in the study area.

1.3 Research Objectives

The main objectives of this study are:

1. To identify the different activities those were introduced to women by the project in the study area.

2. To know the different approaches adopted by the project and how they promote women participation.
3. To propose some recommendations that may assist the project administration, planners, NGOs and other concerned authorities to deal with the poverty situation and to promote the development process in the area.

1.4 Research Assumption

To meet the objectives of this study, the following assumptions were set to be examined:

1. Women show active participation in different activities that were introduced by the ARS-K project.

2. Women play a great role in the process of poverty reduction and rural development in the study area through their participation in different activities.

1.5 Research Methodology and Tools of data collection:

1.5.1 Methodology of the study:

The descriptive, historical and simple statistical methods were implemented to meet the objectives of this study.

1.5.2 Study Area:
The project covers about 28 villages in the five localities of Kadugli Governorate; namely Heiban, El Boram, Um Dorain, Western and Eastern Kadugli. Five villages were selected in North-Eastern Kadugli locality purposively (including Saraf Al Dai, Al Kwik, Taisi Abdel Salam, Kiga Jero and Dara) because they relatively safer compared with other places.

1.5.3 Sample Size:

A sample of 75 women was selected accidentally from the above mentioned 5 villages due to the unavailability of population lists (sample frame) and poor recording system in these villages. Fifteen respondents were interviewed in each village to obtain the required data.

1.5.4 Tools of Data Collection:

To accomplish the objectives of the study both secondary and primary data were collected and used. Secondary data was obtained from the project documents, consultancy and progress reports, papers, books, unpublished thesis, web published media (internet) and other relevant sources.

Primary data was collected through questionnaire, interviews, observation and group discussions as flexible complementary methods of data collection. The questionnaire was designed to meet the objectives of the study. Particular emphasis was placed on the women group. The questionnaire consists of three parts; the first part covered the socio-
economic characteristics of the respondents, the data about the women participation in the project activities was stated in part two. Part three includes the data about other activities carried out by women to reduce their poverty, as well as their opinion about the project activities, and their suggestions to improve women situation, poverty condition and the development process in the study area (see Appendix I).

1.5.5 Data Analysis and Management Techniques:

The researcher used simple descriptive statistics techniques for the analysis of the collected data applying the Statistical Package for Social Sciences (SPSS). The analyzed data was presented in the form of frequency tables and percentages.

1.6 Research Limitations:

It is worth mentioning that the field work was conducted during the rainy season. The researcher was faced with many problems (i.e. transportation difficulty due to bad road condition, and security hazards in some places) which resulted in restricting the number of villages to only one rural council (the North-Eastern Kadugli).

1.7 Study Organization:

This study consists of five chapters as follows: Chapter One; is an introductory chapter, including the background information, problem
statement, research objectives, research hypotheses, research methodology and instruments of data collection, constraints encountered during the field work and organization of the study. Chapter Two; reviews the relevant literature. Chapter Three; consists of two parts; part one reflects the socio-economic setting of the study area. Part two gives information about the Area Rehabilitation Scheme –Kadugli (ARS-K). Chapter Four; presents data analysis, discussion of the research findings and results. Chapter Five; provides summary, conclusion and the recommendations of the study.

2.0 Introduction:

This chapter reviews the literature and covers the conceptual and theoretical parts related to the study. It consists of three parts (following this introduction), part one covers different poverty definitions, perspectives, causes and measurements. Part two concerns with women in development. Rural development definitions and examples of some rural development programs were set in part three.

2.1 Conceptualization of Poverty:

2.1.1 Poverty Definition:
Poverty has a range of definitions differing from one country to another and from one writer to another, because it is a multidimensional concept that depends on how poverty is defined and by whom.

According to the UNDP Human Development Report (1997), poverty is defined as:

“That opportunities and choices most basic to human development are denied – to lead a long, healthy, creative life and to enjoy a decent standard of living, freedom, dignity, self-respect and the respect of others” (UNDP, 1997:15).

From this definition one can understand that poverty is connected with lack of dignity, freedom, self-respect and respect of others.

However, the World Bank (1990), defined poverty as:

“The inability to attain a minimal standard of living” (World Bank, 1990).

Thus, it is linked to the lack of education, skills, equitable distribution of wealth and productive resources among people and regions. In other words, those who can not obtain basic minimum needs of food, water, energy, clothes, health and education are regarded as living in absolute
poverty. This definition is relevant to a country like Sudan, since the majority of its population experience lack of food, water and sanitation, health and education.

Moreover, according to the above-mentioned Human Development Approach of the UNDP (1997), poverty can be defined in different ways as represented in the following perspectives:

1. **Basic need perspective:** Poverty is defined as deprivation of material requirements for minimally acceptable fulfillment of human needs. This concept of deprivation goes well beyond the lack of private income. It includes the need for basic health and education and essential services that have to be provided by the community to prevent people from falling into poverty. It also recognizes the need for employment and participation.

2. **Income Perspective:** A person is poor if, and only if, his/her income level is below the defined poverty line, which may be defined as a number of people living below specified minimum level of income. Many countries have adopted income poverty lines to monitor progress in reducing poverty incidence. Often the cut-off poverty line is defined in terms of having enough income for a specified quantity of food.
3. **Capability perspective:** Poverty represents the absence of some basic capabilities to function. A person becomes poor if he/she lacks the opportunity to achieve some minimally acceptable levels of these functions. The functioning relevant to this analysis can vary from such physical ones as being well nourished, being adequately clothed and sheltered and avoiding preventable morbidity, to more complex social achievements such as participating in the life of the community. The capability approach reconciles the notions of absolute and relative poverty; since relative deprivation in incomes and commodities can lead to an absolute deprivation in minimum capabilities” (UNDP, 1997).

2.1.2 **Poverty measurement:**

Different scholars put several measurements to poverty. These measurements differ from one country to another depending on the country situation. The following paragraphs review three of these measurements which are:

1. **The Head Count Index;** which is a measure of the prevalence of poverty. It denotes the percentage of households who are poor as a proportion of total population.
2. **The Poverty Gap Index;** which is a measure of the depth of poverty and it denotes the gap between the observed expenditure levels of poor households and the poverty line.

3. **The Poverty Severity Index;** which measures the degree of inequality in distribution below the poverty line and it gives greater weight to households at the bottom of the income or expenditure distribution’ (El-Laithy, 1999).

### 2.1.3 Causes of Poverty in the Sudan:

The causes of poverty and the reason behind its spread in all parts of the country are several, including economic, political, social, and environmental factors.

Economically; due to the previous Structural Adjustment Policies (SAP), high debt and the big inflation rate that the country pass through it. The percentage of the poor population became very high and the incident of poverty became great in all parts of Sudan.

Politically; it is clear that Sudan is characterized by political instability since independence. This instability creates different policies which enhanced the spread of poverty.
Socially and environmentally; the huge deterioration in both sectors is one of the poverty indicators. Although the country has vast natural and human resources, they are inadequate or poorly utilized due to irregular development and poor economic policies.

2.1.3.1 Causes of Poverty in South Kordofan State (SKS):

Generally in the SKS, the last two decades witnessed the civil war and related conflicts, coupled with severe drought and other environmental disasters which resulted in a widening food gap and increasing the magnitude of poverty. In addition to that, there are other problems that led to increase the extent of poverty in the whole country and especially in SKS, such as high and continually increasing level of inflation rate, inadequate basic infrastructure (i.e. roads, communications, electricity, transport facilities, water for irrigation, human and animal use). All these factors together and individually affected the production and marketing of goods, the cost of inputs and the opportunities for income generation (ARS, 1999b).

So in SKS it is clear that people lack access to basic needs (i.e. clean water, electricity, education, health service, etc). Beside that the basic human rights are denied in that area, people are suffering from the humiliation from both fighting sides; the Sudan Army and the Sudan Peoples Liberation Army (SPLA), and women are suffering a lot from the
loss of their husbands, fathers, and from sexual harassment. Thus, it is clear that SKS suffers more from poverty due to the deprivation of material requirements for acceptable fulfillment of human need and lack of capability to achieve at least a minimal acceptable standard of living.

2.2 Women, Poverty and Development:

In 1996 the United Nations Development Program (UNDP) had estimated that 1.3 billion people in the developing world are poor, with women representing approximately 70 percent of this figure.

It is worth mentioning that women and poverty had been at the heart of three important international conferences. The first was the International Conference on Population and Development (ICPD) held in Cairo 1994, and the second was The World Summit for Social Development, which took place in Copenhagen, Denmark in March 1995, in which the participants were committed to the goals of eradicating of poverty as an ethical, social, political and economic imperative of human kind. The third is the Fourth World Conference on Women held in Beijing, China 1995.

2.2.1 Women in Development Approaches:

To improve women situation and to involve them in development, different approaches were undertaken by development practitioners, including the following:
2.2.1.1 The Welfare Approach:

This approach was introduced in the 1950s and 1960s. It was the earliest policy approach concerned with the women in the developing countries. Its purpose is to bring women into development as better mothers. Since they were seen as passive beneficiaries of development (Moser, 1993).

The Welfare Approach is based on three assumptions. First, those women are passive recipients of development rather than participants in the development process. Secondly, that motherhood is the most important role for women in the society. Thirdly, that child-rearing is the most effective role for women in all aspects of economic development (Ibid, 1993).

So this approach deals with women reproductive role and it ignores their other roles (productive and managerial). Thus, it perceives women as development recipient rather than partners.

2.2.1.2 The Equity Approach:

This approach was developed and introduced during the period from 1976 –1985, the UN Women’s Decade. Its purpose is to gain equity for women in the development process. Thus, in this approach women are seen as active participants in development. It recognizes women’s triple role (i.e. productive, reproductive and managerial role) and seeks to meet strategic
gender needs through direct state intervention, giving political and economic autonomy to women, and reducing inequality with men (Ibid, 1993).

2.2.1.3 The Anti-poverty Approach:

This approach was introduced since 1970s onwards. Its purpose is to ensure that poor women increase their productivity. Women’s poverty is seen as the problem of underdevelopment, not of subordination. It recognizes the reproductive role of women, and seeks to meet practical gender needs to earn an income, particularly through small-scale income-generating projects. It is most popular with NGOs (Ibid, 1993).

In this approach the economic inequality between men and women is linked to poverty. Thus, the emphasis shifted from reducing inequality between men and women, to reducing income inequality. Underlying this approach is the assumption that the origin of women’s poverty and inequality with men are attributed to their lack of access to private ownership of land, capital and to sexual discrimination in the labour market. Consequently it aims at increasing the employment and income generating options of low income women through better access to productive resources (Ibid, 1993).

2.2.1.4 The Efficiency Approach:
Efficiency is the predominant Women In Development (WID) approach, particularly since the 1980s. Its purpose is to ensure that development is more efficient and effective through women’s economic contribution. It seeks to meet practical gender needs while relying on all of women’s three roles and on elastic concept of women’s time. Women are seen primarily in terms of their capacity to compensate for declining social services by extending their working day (Moser, 1993).

Moreover, this approach relies heavily on the elasticity of women’s labour in both their reproductive and community managing roles. It only meets practical gender needs at the cost of longer working hours and increased unpaid work. In most cases this approach failed to reach any strategic gender needs, because of the reductions in resources allocations (Ibid, 1993).

2.2.1.5 The Empowerment Approach:

As indicated by Moser, C. (1993), the empowerment is the most recent approach, articulated by Third World women. Its purpose is to empower women through greater self-reliance. Women’s subordination is seen not only as the problem of men but also of colonial and neo-colonial oppression. It recognizes women’s triple role, and seeks to meet strategic
gender needs indirectly through bottom-up mobilization around practical gender needs (Ibid, 1993).

2.3 Rural Development Concept and Approaches:

2.3.1.1 What is Development:

Development is a concept with different forms and meanings. It refers to the change in social, political, economic, cultural and technological aspects. However, it focuses on human well-being and improvement of people life.

According to the International Development Strategy for the second development decade, the term means

“To bring about sustained improvement in the well-being of the individual and to bestow benefits on all” (Snyder, M. & Tadesse, M., 1995:25).

Form this definition development means continuous or sustainable improvement of the community and the fair distribution of the benefits to all members of the society. In the same context, Kocker, R. (1973) defined development as:

“A general improvement in the level of living, together with decreasing inequality of income distribution
Thus, the development concept means the universal improvement in the standard of living coupled with reducing the income inequality to ensure sustainability over time.

Furthermore, according to Todaro, M. (1985), development is defined as:

“A multidimensional process. It includes economic development and improvement in economic and social services” (in: Bello, A., 1998:30).

Nevertheless, various studies conducted on the experience of development in less developing countries concluded that development process could take different objectives and forms. However, according to Okley, P. (1983), these forms include:

♦ Development involves introduction of new ideas in the social system in order to produce a higher per capita income and improve level of living through modern production methods and to promote change.
♦ Implies total transformation of traditional or pre-modern society to types of technology and associated social organizations of advanced stable nations of western world.

♦ Building up the people. It is an experience of freedom in deciding and choosing (in: Suliman, G., 2002).

2.3.1.2 Rural Development (RD) Definitions:

Rural development (RD) is defined by different scholars, researchers, and others differently but some of them have the same idea about the term.

According to the World Bank, rural development is defined as:

“A strategy design to improve the economic and social life of specific group of people, of rural poor. The group is including small-scale farmer’s tenants and the landless”


From this definition one can notice that rural development is a strategy targeting different rural poor segments and helping them to improve their socio-economic situation.
Moreover, as indicated by Lele, U. (1975) rural development can be defined as:

“Improving standards of the mass of the low-income population residing in rural areas and making the process of their development self-sustaining” (Lele, U. 1975:25).

This definition has three important features with substantial implications for how rural development programs are designed and implemented:

1- Improving the living standards of the subsistence population involves mobilization and allocation of resources so as to reach a desirable balance over time between the state of social welfare and the production of services that actually reach rural population.

2- Mass participation requires resource mobilization and allocation to low-income regions and classes and that production and social services actually reach them.

3- Making the process self-sustaining requires the development of appropriate skills, implementing capacity and institutional building at local, regional and national levels to ensure the effective use of existing resources and human resources for continual development of the subsistence sector (Lele, U., 1975).
Thus, sustainable development became commonly used to refer to the development process in the LDCs, which is defined by the FAO as:

“the management and conservation of the natural resources base, and the orientation of the technological and institutional change in such a manner as to ensure the attainment and continued satisfaction of human needs for present and future generations.” (In: Badri, A. & O. 2001:6)

From the above definition sustainable development could be in all sectors, and it should be attain through organized and adequate use of the different resources to satisfy the needs of the present and future generations. Thus, all developmental projects should be environmentally friendly, technically suitable, economically feasible and socially acceptable.

2.3.2 Rural Development Programs:

Different programs to rural development were implemented and adopted with different goals and objectives to promote and improve the standard of living of both urban and rural populations. Some examples of these programs are reviewed in the following paragraphs.

2.3.2.1 Community Development Programs (CDP):

As indicated by Coombs & Ahmed, 1974 the term ‘community development’ gained prevalence in pre-independence British Africa when
colonial social welfare officers–later designated community development officers–sought to stimulate self-help actions in selected rural areas to improve health, nutrition, adult education and general community welfare.

According to Augstin, J. (1989), the term community development is defined as:

“Implementing variety programs aiming to improve infrastructural, economic, education, hygienic and social aspects” (Augstin, J. 1989:73).

These types of programs are concerned with provision of different socio-economic services such as: drinking water, health, nutrition to the targeted communities to help them help themselves (i.e. improve their situations). The best example of CDP is Idian’s Community Development program, which was introduced in 1952 in India, using both social and economic development objectives and wider range of activities.

2.3.2.2 Agricultural Development Programs (ADP):

As indicated by Swanson, B. (1994), the philosophy of agricultural development programs is to coordinate all agricultural inputs and apply them in an integrated manner, supervised with autonomous project management.

The Agricultural Development Programs are planned and put into practice to enhance the agricultural output or production, through the
provision of the agricultural inputs via agricultural extension services. It also provides some social services such as education, IGA, health, and so on. These types of programs are targeting the farmers and other agriculture workers.

The best examples of the agricultural development program in Sudan are the Gazira Scheme (in the Gazira State) and Rahad Agricultural Scheme in Gazira and Gadarif States.

2.3.2.3 Integrated Rural Development Programs (IRDP):

The integrated rural development program is a comprehensive strategy of actions that provides different services in social, economic and environmental aspects for the whole targeted areas and communities.

As indicated by Lele, U. (1975) the integrated rural development programs have common elements as follows:

- Comprehensive planning since single rural sector planning will not succeed.

- Synchronization of economic and social development programs.

- Participation of the target groups in the development process through local autonomy.
- Local rural development should be integrated with national and regional development.

- The development of urban areas within the rural sectors providing inputs and services as markets for their products.

Thus, such type of programs needs community participation in all program stages to ensure the sustainability. Also these programs strengthen the target group capacity through formation or establishment of relevant development institutions (i.e. Village development committees, women’s groups, and so on).

2.3.2.4 Basic Needs Programs (BNP):

As indicated by Bello, A. (1998) the basic Need programs assume that there is a certain minimum level of personal consumption and access to public services that can be regarded as essential needs at standard levels, such as food, housing, clothing, clean water. In this respect he comments that:

“Estimates from various sources indicated that, at present 600 million of 1.2 billion people in the poorest countries do not get enough food, to meet their minimum daily requirements in-terms of calories, and proteins, (350 million are children under 15 years). To deal with those groups, estimates of resources at both local and
Moreover, he indicated five operational issues that should be taken into consideration at both local and international levels to insure a successful implementation of the basic needs programs. These issues are:

I. The domestic and external resources required for meeting the basic needs for a large and growing number of people in the developing countries. This means that both local and international contributions are needed to mobilize the available resources to meet the basic needs for the community.

II. Designing and redistributing of social services for the benefit of the poor people residing in the remote areas. This ensures equal distribution of the available resources among community members.

III. Promotion of popular participation to carry-on the program of social change and to articulate the demand for meeting the basic needs and for the efficient management of the services developed to satisfy those needs.
IV. Basic needs program should develop a system of signals and incentives, in order to investigate the society’s preferences for meeting basic needs, and

V. Trade-off between basic needs and other objectives. This is mainly with satisfaction of basic needs, other objectives could be achieved along the same line (Bello, A., 1998)

3.0 Introduction:
This chapter consists of two parts. Part one provides general information about the socio-economic and physical environment of Kadugli Governorate. It also gives brief information about the ongoing development process in the study area. The second part covers background information, development and status today of the Area Rehabilitation Scheme- Kadugli.

**Part one: Kadugli Governorate:**

3.1.1 Location:

Kadugli Governorate is located between the longitudes 29, 12 – 30, 40 degree East and the latitudes 9, 20 – 11, 30 degree North in South Kordofan State. It covers an area of about 19,505 square Kilometer. The governorate shared boundaries with other governorates of the state namely; Dilling, Rashad, Abu Gibeha, and Talodi (see map 1). It is further subdivided into five rural councils namely El Boram, Heiban, Um Dorein, Western and Eastern Kadugli (ARS, 1997a).

3.1.2 Climate:

The study area has a daily maximum temperature ranging between a minimum of about 30°C in July – August to a maximum of 40°C in April. Minimum temperature reaches its lowest value of about 16°C in December – January and a maximum of about 22°C in May – June. Rainfall starts in May and continues until October with annual average
Map 1: South Kordofan State
total of 700 mm. relative humidity reach over 90% during August and
minimum of about 26% in March (ARS, 1997a).

3.1.3 Population:

According to the 2003 census, the total population of South Kordofan
State is 1,206,442 inhabitants. About 209,921 (17.40%), 956,709 (79.30%)
and 39,812 (3.30%) are representing the Urban, rural and nomadic
population of the State respectively. Kadugli Governorate hosts about
466,893, (38.70 percent) of the State population. (Tables 3.1 & 3.2).

The study area is inhabited with different ethnic groups of people
(Nuba, Arab, and other minorities). These groups have different social and
cultural practices and activities within and between the groups. The Nuba
and the Baggara are the main groups in the area.

By language classification the Nuba people can be classified into ten
groups (Koalib-Moro, Talodi- Mesakin, Lafofa, Tegali- Tagoi, Kadugli –
Korongo, Temein, Katla, Nyimang, Hill Nubian, Daju). Each category of
this classification includes a number of tribes (Stevenson, R. 1989). Despite
this classification, the Arabic language is the lingua franca in the region.
The most Arab groups that settled in the area are; Baggara the cattle owners including Messirya, Awlad Hmaid, Hawazma, Kawhla and benni helpa.

3.1.4 Topography, Soil And Vegetation:

The study area has a variety of fertile soils, ranging from heavy black and cracking soils to the lighter clayish varieties and sandy loam’s fertile soils.

According to the heterogeneity of the soil in the study area, different categories of vegetation can be distinguished.

The most dominant bushes and trees in the area are; Accacia Senegal (Hashab), Accacia Nubica (Laout), Guiera Senegalensis (Ghebeish), Zisiphus Spina –Cherisit (Sider), Calotropis Procera (Ushar), Combetum Cordofanum (Habel), Accacia Mellifera (Kiter), Accacia Arabica (Sonot), Blanites Agyptiaca (Heglig), Accacia Seyal (Taleh), (Bello, A. 1998).

3.1.5 Water Sources:

There are different sources for the water supply in the study area. These include, Khurs¹, shallow wells and variety of water yards, Hafirs², dams, and hand-pump created by both government and NGOs.

The following water resources are more common in the study area:

---
¹ Khur denotes a big drain
² Hafirs, denote water reservoir
1) Water Reservoirs (Hafirs):

The excavation of water reservoirs or hafirs is an old system practised in the area and dated back to the 1950’s. In the past hafirs were excavated with the use of earth-moving machinery provided by government. Recently some NGO’s have resorted to construction of such facilities with manual labour. The water storage capacities of theses hafirs tend to range from 5000 to 10,000 cubic metres, although there is a few that are much larger (UN, 2002).

Plate 1: Water Reservoir (Hafir)

Source: The Carter Centre / Global 2000

2) Hand Pumps:

The rural population in the study area tend to rely heavily on hand pumps (locally known as madakha) as primary sources of safe potable
water. Hundreds of these hand pumps were installed mainly by NGOs (UNICEF) in rural areas over the last two decades (40% of them are broken or no longer functioning). There is thus increasing high usage of the existing pumps, which decreased in number and became far in distance from many of water consumers (Ibid, 2002).

Plate 2: Hand pump (Madakha)

Source: researcher Camera 2003

3) Water Yards (Donki):
Water yards are relatively sophisticated facilities with a motorised pump drawing up ground water via bore-holes into an overhead tank for distribution. There are water collection points for both people and livestock. Now, many of these yards experience regular breakdowns and require virtually continuous care and maintenance (ibid, 2002).

Plate 3: Water Yard (Donki)

Source: The Carter Centre / Global 2000

3.1.6 Economic Activities:

The nature of the area provides different sources of economic activities. The main dominant sources of livelihood are agriculture and livestock production, both encompass about 93% of the total governorate population.
and the rest are working as employees, workers, craftsmen, merchants or retailers and other government workers (Ismail, 1999).

3.1.6.1 Agriculture:

Agriculture is considered the major economic activity for the majority of the population in the study area.

Different cash and subsistence crops are cultivated. Cash crops are sorghum/dura, sesame, cotton, groundnut and karkadi, which are cultivated in the big farms, while the subsistence crops and early maturing

<table>
<thead>
<tr>
<th>Governorate</th>
<th>Female</th>
<th>Male</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Al Petroul</td>
<td>98104</td>
<td>92389</td>
<td>19493</td>
</tr>
<tr>
<td>Al Boram</td>
<td>66605</td>
<td>62724</td>
<td>129329</td>
</tr>
<tr>
<td>Heiban</td>
<td>24045</td>
<td>22644</td>
<td>46689</td>
</tr>
<tr>
<td>Kadugli</td>
<td>240451</td>
<td>226442</td>
<td>466893</td>
</tr>
<tr>
<td>Total</td>
<td>625017</td>
<td>581425</td>
<td>1206442</td>
</tr>
</tbody>
</table>

Table 3.2

Classification of SKS’s Population by sex (urban/rural/nomadic)

<table>
<thead>
<tr>
<th></th>
<th>Urban</th>
<th>Rural</th>
<th>Nomadic</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>107899</td>
<td>491748</td>
<td>20463</td>
<td>620108</td>
</tr>
<tr>
<td>Male</td>
<td>102022</td>
<td>464961</td>
<td>19349</td>
<td>586332</td>
</tr>
<tr>
<td>Total</td>
<td>209921</td>
<td>956709</td>
<td>39812</td>
<td>1206442</td>
</tr>
</tbody>
</table>


varieties of sorghum, maize, millet, cowpeas and a variety of vegetables are planted in Jubraka\(^3\) which plays a crucial role in alleviating hunger during the critical period from July until October when harvest of crops in the distant big farm begins. The Jabareek (plural of Jubraka) are managed completely by women.

The main agricultural production systems in the study area are:

1. **Sedentary Production System:** This system is practiced by the majority of the population. In this system households raise sorghum as the primary and staple food crop; which is intercropped with either sesame or cowpea.

\(^3\) Jubraka stands for the back-yard garden cultivated by women.
2. **Transhumant Production System:** The most dominant tribes that practice this system are Messirya and Hawazma (Baggara Arab). Household in this system generate virtually all their income through the sale of livestock and livestock products. Crop production plays a secondary role in this system. However, sorghum, sesame, cotton, millet and groundnut are most common.

3. **Mechanized Production System:** This system started in 1968 in the clay plains at Habila area and expanded during the period of 1970 – 80 to cover an area of one million feddans. According to farm size this system comprises:

I) **Mechanized Small Holder Tenant System:** In this system the household is still the principal production unit growing sorghum and cotton in 15 feddans plots.

II) **Mechanized Large Scale Farming:** Area of farms in this system is ranging between 1000-1500 feddans. The main crops cultivated are sorghum and sesame (ARS, 1997a).

3.1.6.2 **Livestock Production:**

According to the 2003 census, the total livestock population in Kadugli Governorate is estimated to be about 1,288,750 heads (559,000 cattle, 350,000 goats, 275,000 sheep, 67.500 camels and 37.250 horses).
The primary types of livestock in the area are cattle (East African short-horned *Bos indicus*), sheep (a small version of the desert type) and goats (the dwarf, short-eared type), (ARS, 1997a). It is worth mentioning that, few numbers of livestock (mainly goat and sheep) are kept in the houses for domestic purposes.

Beside using animals as a source of income, it is also used as a source of food, means of transport, and labour sources (i.e. animal traction), social prestige, and are used for social occasions (such as marriage, circumcision, *Naffer*\(^4\), etc.) (Bello, 1998).

### 3.1.7 Social Services:

The social services in the state are very poor in general due to the long civil war and bad economic situation of the state. The following paragraphs will provide some information about education and health situations in the study area according to official reports and researcher observation.

#### a) Education:

\(^4\) *Naffer* is a local word stand for the voluntary group labor organized by the community to help each other. For more detailed about *Naffer* see (Bello, 1998 pp 96-98).
The on-going civil war in the SKS, had a serious effect on all sectors especially the education, through the demolition of school structures, or occupation of the building for military purposes, or closure of schools for reasons of insecurity. According to the Ministry of Education (MOE) general report (2001) the educational level in the State is very low: The total number of schools is 597, (560 basic school, and 37 secondary schools for both sexes), (Table 3.3).

The school enrolment in the State for both levels (basic and secondary), is differ for male and female. It was indicated that the enrolment for female for basic and secondary school is 44% and 43% respectively while for male is 56% and 57% for the two levels (MOE report, 2000).

Furthermore, there is only one University which in the State (University of Delling), and it was recently established.
## Classification of Schools by Level of Education and Sex

<table>
<thead>
<tr>
<th>Type</th>
<th>Boys</th>
<th>Girls</th>
<th>Co-education</th>
<th>Nomads</th>
<th>Village</th>
<th>Private education</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic level</td>
<td>80</td>
<td>72</td>
<td>273</td>
<td>49</td>
<td>75</td>
<td>11</td>
<td>560</td>
</tr>
<tr>
<td>Secondary</td>
<td>20</td>
<td>17</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>37</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>89</td>
<td>273</td>
<td>49</td>
<td>75</td>
<td>11</td>
<td>597</td>
</tr>
</tbody>
</table>


b) Health Situation:
The health service situation is not better than education in the State. It is characterized by deteriorating health services, bad building structures, lack of medicines, and medical staff.

In Kadugli town the head-quarter of the State, the health situation is not bad compared to the other areas. There is one hospital, 10 health centers, 26 dispensaries, and 31 health units (6 for nomads and 25 for settled). In all these health institutions, there are few doctors (mainly in town) and some para-medical staff (i.e. medical assistants, mid-wives and nurses), (UN, 2002).

The shortage of medical staff and medicines forced the local community to use the traditional drugs for treatment of different diseases (such as; Garad, karkadi, Helba, and so on).

3.1.8 Ongoing Development Efforts:

The development process in the study area is an old process and was started since 1920s. Different developmental projects/programs were initiated in the area to accelerate the development process and to improve the economic situation of the population. Some of them are phased out and others are still running in the area. Most of these programs provide different services to help needy and vulnerable groups (i.e. women and children).
The following paragraphs will highlight some examples of the development programs which are running in the study area:

3.1.8.1 Government Efforts:

a) Women and Development Administration (Ministry of Social Affairs) (WADA):

WADA was established in 1996, offering different assistance to the returning and poor women. Its main activities are; (1) conducting feasibility studies for different projects, (2) offering different income-generating activities to women and (3) providing revolving funds.

b) Peace & Resettlement Commission (PRC):

Established in 2000, with the objectives of; (1) helping people who were affected by the war, (2) rehabilitating different areas destroyed by war, (3) providing displaced/returning people with different basic needs (food, medicine, shelter, etc.).

The target group of the PRC are the people returning from SPLA controlled areas.

c) Sudanese Red Crescent (SRC):

It was established in 1991 to provide assistance in the areas of health, social development, relief and other services.
The target groups are the most disadvantage group, displaced and returning people.

The major activities are; (1) primary health care, (2) increasing awareness towards mine dangers, (3) Disaster management, (4) immunization, (5) AIDS campaigns and (6) health education.

3.1.8.2 International Efforts:

a) United Nation International Children Fund (UNICEF):

UNICEF established its activities in Kadugli province since 1978. It provides different activities to rural communities (especially women and children) in the field of health, water and sanitation, education, environment and conflict resolution.

b) CARE International:

The major objectives of CARE international in the State are to improve water situation in the area, and increase people awareness on the water transmitted diseases.

The target group is the rural community. Its main activities are installation of new hand pumps and maintenance of the old ones, training of village committees on maintenance and health education, and provision of food for work.
c) **Save the Children- USA:**

Save the Children-USA started its activities in the SKS in 1994 to provide different types of assistance to the displaced and returning people from the war zone (especially children) in the five provinces of South Kordofan State.

Its main objectives are; (1) conducting surveys to identify the needs of the disadvantage groups (2) provide help in the field of health and nutrition, (3) provide different agricultural inputs, and (4) water and sanitation.

**Part Two: The Area Rehabilitation Scheme – Kadugli (ARS-K):**

3.2.1 **Project Area:**

UNDP had been providing assistance to Sudan since 1970, supporting several projects in the forms of relief, humanitarian assistance, developmental and poverty alleviation programs in different parts of the Sudan including the war affected zones.

The UNDP initiative that had been referred to as part of the development attempts in South Kordofan State, is being undertaken within the modality of the Area Development Scheme (ADS) approach in the
transitional zone which had been affected by the ongoing civil war. ADS is an integrated rural development program based on the participatory approach which aims at creating sustainable development and improving the community situation. Kadugli Governorate in this context was selected to host that initiative in the badly war affected areas as one of Area Rehabilitation Scheme (ARS), in the state (Khamis, 2001).

ARS-K was established by the UNDP in 1996 in collaboration with the Government of Sudan. It is headquarter is situated in Kadugli town the capital of South Kordofan State and targeting all rural councils of Kadugli governorate.

The project is an attempt to help rural communities to strengthen their local institutions and to improve their livelihood with especial emphasis on women. The project aimed at rehabilitating selected villages in Kadugli Governorate with a view to establishing a model to be replicated in rehabilitating other war-affected villages.

To ensure the sustainability, the project adopted a participatory approach to enable the beneficiaries to participate through the relevant institutions (i.e. village development committees, women groups). Beside that it works with different stockholders (i.e. farmers, grass-root
organizations, nomadic group) as part of the project administration and to participate in the process of decision-making.

The project covers about 28 villages, with 24 village Committees (VCs) and 4 Nomadic Committees (NCs) and has a total population of 45,973 persons of the province population (ARS, 1998).

### 3.2.2 Project Aims and Objectives:

As indicated in the project document (1997), there are two set of objectives of the ARS-K as follow:

a) The Long Term Objectives that include the followings:

- Alleviation of poverty
- Food security including improved agricultural productivity, better livestock and fisheries management.
- Empowerment of women at all socio-economic levels.
- Community-based and community-managed rehabilitation and development programs, with funding coming from national financial and development institutions through village sandoq\(^5\) in the form of loans.

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\(^5\) Sandoq denotes a Sudanese version of saving.
- Environment regeneration and environmentally-friendly agricultural and animal husbandry policies and practices
- Resource mobilization (ARS, 1997b).

b) Immediate and Short Term Objectives are: This is categorized into four major groups.

1. Institutional capacity building; this could be achieved through establishing VDCs, and women groups to strengthen the institutional capacity building.

2. Productive capacity building, through providing different activities to increase production and improve the economic situation (i.e. communal farm, animal raising, shops, etc).

3. Human capacity building; throughout providing different training to strengthen their capacity and skills.

4. Environment management capacity building; by adopting environmental friendly varieties of vegetations, crops/trees (ibid, 1997b).

3.2.3 Project Target Group:

As indicated in the project report (1997), the target group of the project is the total population of the Kadugli Rural Councils. In other words, all people who were affected by the civil war in the Governorate
will directly benefit from the project. Kadugli town and other surrounding villages will indirectly benefit as the project will support production of commodities that will be available for the people’s use in Kadugli and other villages (ARS, 1997a).

3.2.4 Means and Approaches:

To achieve the aforementioned objectives, the project follows top-down and empowerment approaches in implementing its activities in a sustainable manner. It follows different means and strategies including:

- Working with the grass-roots organizations, farmers, nomadic groups, and women.
- Establishing a Village Development Committee in each village (in this committee women constitute 40% of the total members).
- Establishing women groups in each village to empower them.

3.2.5 Project Achievements:

The project achieved good results especially in the field of food security.

With regards to the human capacity building, it empowered the community, and gave them the chance to have different choices, involved them in the process of decision-making, and made them able to determine their needs, problems and how to solve them (ARS, 1999).
3.2.6 Project Management:

The project is managed by different stockholders as follows; UNDP as an international cooperation in collaboration with the Federal Ministry of Finance. These two bodies have direct contact with the project administration. The project administration works with the grass-roots and delegates the authority to different Community Based Organizations (CBOs) and Village Development Committees (VDCs) in different project areas (see fig 3.1).

Figure 3.1
Administrative structure of ARS-K

**UNDP**: United Nation Development Program

**MFE**: National Ministry of Finance

**PSC**: Project Steering committee

**MFED**: State Ministry of Finance and Economic Development

**NPC**: National Project Coordinator

**PCC**: Project Coordination Committee

**GPC**: Government Project Coordinator

**CDU**: Community Development Unit

**CBO**: Central Beneficiaries Coordinator

**VDCs**: Village Development Committees

**Beneficiaries**

---

**Administration**

---

---
4.1 The Socio-economic Characteristics of the Respondents:

4.1.1 Age:

Age is the main factor that determines the productive group in any community. According to the survey results presented in Table (4.1), most of the respondents fall in the age category (20 – 49) years representing (73.4%) of the total sample. This percentage indicates that more than half of the respondents are economically active; this means that they can produce more to satisfy their families’ needs. This result also indicates that, this group can contribute highly in the process of poverty reduction.

<table>
<thead>
<tr>
<th>Respondent Age</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 – 29</td>
<td>10</td>
<td>13.4</td>
</tr>
<tr>
<td>30 – 39</td>
<td>10</td>
<td>13.3</td>
</tr>
<tr>
<td>40 – 49</td>
<td>35</td>
<td>46.7</td>
</tr>
<tr>
<td>50 – 59</td>
<td>20</td>
<td>26.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
4.1.2 Marital Status:

As indicated in table (4.2) about 46.6% of the respondents are married while widowers and divorced constitute about 50.7%. The high percentage of these categories (widowers & divorced) indicate the absence of male in the family due to the migration, separation and/or death and due to the civil war.

Table 4.2

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>Married</td>
<td>35</td>
<td>46.6</td>
</tr>
<tr>
<td>Divorced</td>
<td>8</td>
<td>10.7</td>
</tr>
<tr>
<td>Widowed</td>
<td>30</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
4.1.3 Educational level:

Education is an important aspect at all stages of the human life, and through it people can be able to develop their lives and become more productive, which helps in reducing their poverty. Education is important for both men and women, but it is necessary for women because through women’s education the benefits will be transferred to the next generations, (i.e. their children).

As indicated earlier in chapter three, there is inadequate educational service in the study area and this is reflected in the low literacy rate among the population. As indicated in table (4.3) 66.6 % of the respondents are illiterate or having Khalwa education. This low literacy level among women can be a product of social factors (i.e. the belief that education is not important for girls and/or preference of boy education), bad economic situation and civil war. In other words, the low literacy rate resulted in poor women skills and hinders them to have a good job and to accept work in such activities with low wages. The table also shows that 33.4 of the
respondents had primary, intermediate or secondary education. This fact has a positive impact in their effective participation in the project activities, and promotes the process of development in the study area.

### Table 4.3

<table>
<thead>
<tr>
<th>Educational Level</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>43</td>
<td>57.3</td>
</tr>
<tr>
<td>Khalwa</td>
<td>7</td>
<td>9.3</td>
</tr>
<tr>
<td>Primary</td>
<td>22</td>
<td>29.3</td>
</tr>
<tr>
<td>Intermediate</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td>Secondary</td>
<td>1</td>
<td>1.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Field Survey (2001)
4.1.4 Respondents Source of Income:

As indicated earlier, agriculture is the main economic activity that is practiced by the majority of the Governorate population. This fact is confirmed by the results obtained from the field survey, which indicated that the entire respondents practice traditional agriculture as the main occupation. Thus most of them are subjected to poverty.

The important point about the nature of work in the study area as mentioned earlier is that the majority of the population depends on the rain-fed agriculture which is exposed to natural hazards and may lead to low production and hence increase poverty.

Table (4.4) shows that 42.6% of the respondents depend only on agriculture as a source of income while 57.4% depend on other sources of income beside agriculture (i.e. Herding, hired labor, Income Generating
Activities, etc). It is observed that all these types of activities generate low income which hardly satisfies their family needs.

All respondents failed to give and/or estimate their income and most of them described income as insufficient. This may be due to the fact that they spent what they earn immediately to satisfy their families daily needs.

Table 4.4

Classification of Respondents by Sources of Income

<table>
<thead>
<tr>
<th>Source</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>32</td>
<td>42.6</td>
</tr>
<tr>
<td>Agriculture &amp; IGA</td>
<td>17</td>
<td>22.7</td>
</tr>
<tr>
<td>Agric. &amp; Herding</td>
<td>3</td>
<td>4.0</td>
</tr>
<tr>
<td>Agric., Herding &amp; Hired Labor</td>
<td>23</td>
<td>30.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
4.1.5 Family Size and Conditions:

The family may be defined as all members comprising a household, having kinship and affinity relationship supported by a joint income, known as family income. It represents a unit of production as well as a unit of consumption in the study area as in most other agrarian societies. In turn, it plays essential roles in rural development programs in such communities (Bello, A. 1998)

As shown in table (4.5), about 76% of the respondents’ family size varied between 4 to 10 members. This indicates that women have big reproductive and productive roles (i.e. taking care of their families besides
working outside for earning income to satisfy daily needs). This big family size has two effects; it positively increases the labor force in the farm which results in increasing the cultivated area and hence the income. However, negatively, it may increase the number of dependents which increase women’s burden and worsen the family economic situation.

Moreover, it is observed that the entire respondents’ houses are constructed from mud and straw and consist of 2-3 huts maximum. This is also considered as another indicator of poverty and shows how the people in the study area are suffering from poverty.

Table 4.5

Classification of Respondents by Family Size

<table>
<thead>
<tr>
<th>No. Of Family Members</th>
<th>Frequencies</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 4</td>
<td>12</td>
<td>16</td>
</tr>
</tbody>
</table>
4.2 Economic/ Poverty Reduction Activities Carried by Respondents:

All rural population in the time of seasonal shortages of food and/or time of natural and human-made disasters start to diversify their activities in order to cope with this hard situation and improve their standard of living.
As indicated by Agarwal, B. (1990), women and men are different in adopting the coping strategies, and in most countries the burdens of coping with the hard situation extremely fall on the shoulders of women (in: Elmagboul, N., 2002). This situation is typically as in the study area since the majority of women are heading household and take full responsibility of their families.

The following paragraphs discuss some of the coping strategies of poverty reduction adopted by the respondents in the study area.

4.2.1 Participation in ARS-K Activities:

All development projects established different activities in different rural areas including the study area. These activities are created to help rural communities to generate income which will be reflected in improving their standard of living in a sustainable manner.

From the survey result and as shown in table (4.6), 80% of the respondents are participating in the project since the first two years of its establishment. This indicates the active participation of women in the project activities as well as in the development process. The other 20% of the respondents do not participate in the activities due to several reasons such as they don’t know about the project, or are not convinced with the project activities, or for family circumstances, or other reasons.
Table 4.6

Classification of Respondents by Participation in the ARS-K Project

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant</td>
<td>60</td>
<td>80</td>
</tr>
<tr>
<td>Non-participant</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)

The project has different activities launched in the study areas such as communal farm, credit, IGA, animal raising, and others. As indicated in table (4.7), 53.3 % were involved in the communal farm. This result indicates that women as farmers by nature participate immediately in this type of activity because it does not need new skills or knowledge to gain for practicing it. Also through their involvement in such activity they can gain an addition source of food and income to their family from the amount of crops that they collect from the farm beside the cash gained.

Table 4.7

Classification of Respondents by Types of Project Activities
<table>
<thead>
<tr>
<th>Activities</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communal Farm</td>
<td>32</td>
<td>53.3</td>
</tr>
<tr>
<td>Animal Raising</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>Communal farm &amp; animal Raising</td>
<td>13</td>
<td>21.7</td>
</tr>
<tr>
<td>Communal farm &amp; Credit</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Field Survey (2001)

The entire respondents said that there is an increase in their income due to their participation in the project activities. Table (4.8) indicates that 80% mentioned that their participation has a good impact in improving their family standard of living as well as reducing their poverty condition. However, 20% of the respondents concluded that although there is little increase in their income, there is no evidence of improvement in their standard of living due several reasons (i.e. low income earned from these activities, no marketing for their product… etc).
Table 4.8

Classification of Respondents by Improvement in Family Standard of Living due to Participation in the ARS-K Activities

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is improvement</td>
<td>48</td>
<td>80</td>
</tr>
<tr>
<td>There is no improvement</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>60</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

*Source: Field Survey (2001)*
4.2.2 Jubraka Activity:

Having a back-yard garden (Jubraka) is another economic activity carried out by women in the study area to improve their hard situation and to reduce their poverty. As indicated before, the Jubraka farms are usually cultivated by women to grow vegetables and early maturing crop varieties of field crops to satisfy their family food needs. Table (4.9) shows that 97.3% of the respondents are having Jubraka farms. These Jabareek vary in size (i.e. between ¼ to 1 feddan) and these are planted with different early maturing varieties of Sorghum, Maize, beans, Sesame and different vegetables.

Table 4.9

Classification of Respondents by Possession of Jabareek
(Back- yard garden)

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Having A Jubraka</td>
<td>73</td>
<td>97.3</td>
</tr>
<tr>
<td>Don’t Have A Jubraka</td>
<td>2</td>
<td>2.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>75</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
The jubraka plays a vital role in supporting family food needs early in the agricultural season and also it increases the family income through selling some of its products in the market as mentioned earlier. This is support by the results obtained in table (4.10), which indicates that about 33.4% of the respondents depend entirely on the jubraka as a main source of family food early in the agricultural season.

As indicated earlier, Jabareek usually are managed completely by women. This fact reflects the vital role that women play in supporting the family nutritionally and economically in addition to their role in poverty reduction.

<table>
<thead>
<tr>
<th>Source of food</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family Farm</td>
<td>21</td>
<td>28</td>
</tr>
<tr>
<td>Jubraka</td>
<td>25</td>
<td>33.4</td>
</tr>
<tr>
<td>Family farm &amp; Jubraka</td>
<td>13</td>
<td>17.3</td>
</tr>
<tr>
<td>Market &amp; Jubraka</td>
<td>16</td>
<td>21.3</td>
</tr>
</tbody>
</table>
4.2.3 Income-Generating Activities (IGA):

Income-generating activities may be defined as the set of activities carried out by individuals and/or groups to generate income. These can be main activities or additional sources of income.

It is observed that such activities are carried out as additional sources of income to fill the gap between the family expenditure and income by women in Kadugli Governorate. As pointed out in table (4.11), about 74% of the respondents are practicing some income-generating activities to increase their income and hence improve their poverty condition.

Table 4.11

Classification of Respondents by Practicing IGA to increase income

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicing</td>
<td>54</td>
<td>74</td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
These income-generating activities vary and differ in nature. As shown in table (4.12), more than half (53.7%) of the respondents are involved in charcoal production, while the rest (46.3) are engaged in other activities such as handicrafts, trading, food processing and hired labor in others farm. These results indicate that women are working in a range of activities that they knew by nature. This is due to the low literacy rate among women. Also these results indicate that the majority of women are spending long hours in work (in big farms, Jabareek and in other income-generating activities). This shows also the reasonable contribution of women to family income, hence improvement of their families’ socio-economics situation and poverty reduction process.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Practicing</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td>73</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Field Survey (2001)
### Table:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making charcoal</td>
<td>29</td>
<td>53.7</td>
</tr>
<tr>
<td>Selling food, sweets, tea</td>
<td>6</td>
<td>11.1</td>
</tr>
<tr>
<td>Handicraft</td>
<td>5</td>
<td>9.3</td>
</tr>
<tr>
<td>Hired labor</td>
<td>6</td>
<td>11.1</td>
</tr>
<tr>
<td>Selling wood</td>
<td>8</td>
<td>14.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>54</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Source:** Field Survey (2001)

### 4.3 The Impact of the ARS-K Activities on Women’s Situation in the Study Area:

Women all over the country and especially in South Kordofan State play great role in the economic and social life. This role is clear in their contribution to family income through their work, and socialization of the children. Despite all these facts, women in SKS are suffering from many problems such as high illiteracy rate, health problems, lack of social services … etc.
From the research survey, it was found that the ARS-K played a good role in improving women situation by introducing different activities targeting them (i.e. communal farm, animal raising, … etc) which are reflected in the improvement of the standard of living in the study area. This result is supported by the project Evaluation Report, 1999 which indicated the following:

“The project has shown a good improvement on the household’s standard of living and women’s situation through their participation in such activities” (ARS, 1999: 15).

4.4 Women’s Opinion about the Project Activities:

From the survey results, the all respondents agreed that the project activities generated good benefits to them and helped the community to improve their economic situations and hence reducing poverty. As well, they indicated that, the most appropriate and useful activities are the communal farm and animal raising activities.

A considerable number of respondents suggested that, in order to ensure the sustainability of these activities, the program should be continued and duplicated by other agencies/organizations.
5.1 Summary, Conclusion:

This study is an attempt to investigate women contribution in poverty reduction and the process of development in South Kordofan State, with particular reference to experience of ARS-K, Kadugli Governorate.
To meet the objectives of this study, both primary and secondary data were obtained and used. After reviewing the secondary sources, a field survey was conducted in August 2001 to collect the primary data. Accidental techniques were adopted to select 75 women from the targeted villages. Questionnaire, interviews, observation and group discussion were used as tools for collecting the primary data.

Simple descriptive statistic was used for data analysis and management using the Statistical Packages for the Social Sciences (SPSS).

The main findings of the study are:

- 73.4 % of the respondents are falling in the economically active category. This result can reflect positively on the process of poverty reduction and development in general.

- 66.6 % of the respondents are illiterate or having khalowa education. While about 33.4 of them had primary, intermediate or secondary education. This fact has a positive impact on women participation in the different activities and it promotes the development process.

- All the respondents are practicing traditional agriculture as the main occupation. 42 % of them are depending on agriculture as the main source of income while 57.4 % are having other source of
income. This fact shows that most women are involved in different activities to earn money to meet the needs of their family and to improve their economic situation.

- The family size of 76% of the respondents varied between 4 to 10 members. This big family size has two effects; it positively increases the labor force in the farm which could contribute to increase the cultivated area and hence the family income, and it may negatively increase the number of dependents and this will increase women burden and worsen the family economic situation.

- All women in the study area are practicing different economic activities of poverty reduction to improve the socio-economic situation of their families, including participation in the different activities such as farm and off-farm activities (i.e. communal farm, jabareek, and different income generating activities).

- 80% of the respondents are participating in the ARS-K project activities. This indicates the active participation of women in the project activities as well as in the development process.

- About 97.3% of the respondents are having Jubraka farm. These Jabareek where uses to cultivate different early maturing varieties of field crops and vegetables. 33.4% of the respondents depended
entirely on the Jubraka as a main source of family food in the early agricultural season.

- About 74% of the respondents practice off-farm activities (i.e., some income generating activities) to increase their income and hence improve their family standard of living. Such activities include charcoal production, handicrafts, trading, food processing and hired labor in others’ farm. This is also indicates the reasonable contribution of women to family income, hence improvement of their families’ socio-economic situation and poverty reduction process.

So from the above paragraphs we can conclude that the main causes behind the increase of poverty among the population of SKS are mainly natural and human-made disasters. This includes economic and social factors, civil war and environmental deterioration which consequently deepen women’s poverty. Women in Kadugli Governorate in particular, have considerable contributions in the process of poverty reduction and in the development process in general.

5.2 Recommendations:
Based on the study findings, the following recommendations could be proposed:

- NGOs and the concerned government departments should develop and implement different activities (i.e. communal farm, animal raising and production, and others) to reduce poverty and promote the process of development.

- Attention and consideration should be given to the different income-generation activities that are carried out by women (i.e. Jabareek, food process, hand-craft … etc) as additional source of income to improve their socio-economic situation.

- More efforts should be directed toward women training for capacity building in relevant fields’ skills and activities to enable them to participate effectively in the process of development and poverty reduction.

- More emphasis should be directed towards community based organizations to ensure the sustainability of development activities.

- Further studies should be carried out to identify women contribution in poverty reduction and development process in the studied area.
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Appendix (1)

Questionnaire about women participation in poverty alleviation and Rural Development Process within the Experience of Area Rehabilitation Scheme – Kadugli (Kadugli Governorate, Southern Kordofan state – Western Sudan)

Number: ………..
Village: …………
Council: …………

Part One: general Information

1. Age:
   a. less than 20 years (   ) b. 20 – 30 (   ) c. 30 – 40 (   ) d. 40 – 50 (   ) e. more than 50 years (   )

2. Marital status:
   a. Single (   ) b. married (   ) c. Divorced (   ) d. Widow (   ) e. other (specify)

3. Educational Level:
   a. illiterate (   ) b. khalwa (   ) c. primary (   ) d. secondary (   ) e. other (specify)

4. Respondent Occupation:
   a. farmer (   ) b. herder (   ) c. trader (   ) e. other (specify)

5. family size:
6. Source of family income:

<table>
<thead>
<tr>
<th>Source</th>
<th>Annual income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td></td>
</tr>
<tr>
<td>Harding</td>
<td></td>
</tr>
<tr>
<td>Hire labor</td>
<td></td>
</tr>
<tr>
<td>Self employment</td>
<td></td>
</tr>
<tr>
<td>IGA</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

7. Is the income covering all family expenditure?
   a. yes ( )  b. No ( )

8. If No, How you fill the gap?
   ........................................................................................................

9. What is you role in filling this gap?
   ........................................................................................................

10. Is there is any other persons / organization offering aid to support your family?
    a. Yes ( )  b. No ( )
11-1. If Yes, Specify the kind of contribution?
    a. cash ( )  b. in Kind ( )  c. both ( )
11-2. Is this contribution in a regular base?
    a. Yes ( )  b. No ( )
11. Home structure:
    a. Mud ( )  b. Straw ( )  d. other ....................
    (This question filled by observation)
12. Are you participating in the ARS project?
    a. Yes ( )  b. No ( )
* If the answer yes move to question 15
* If the answer No move to question 24

**Part two: For women involved in the project activities**

13. When you are participate in the project activities? .....

14. At the beginning of the project, are women involved in the process of selecting
    the project activities?
    a. Yes ( )  b. No ( )

15. If Yes, Is their participation cause any problem?
    a. Yes ( )  b. No ( )
16. If yes, mention the problems?
.................................................................................................................................

17. In which of the following activities you are participate?

<table>
<thead>
<tr>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communal farm</td>
</tr>
<tr>
<td>IGA</td>
</tr>
<tr>
<td>Credit</td>
</tr>
<tr>
<td>Animal raising</td>
</tr>
</tbody>
</table>

18. Does your participation increase family income?
   a. Yes (   ) b. No (   )

19. If Yes, Is there improvement in your family standard of living?
   a. yes (   ) b. No (   )

20. If No, what are the reasons?
   a. Low income earn from the activities (   )
   b. No marketing for the product (   )
   c. Others (specify) ............

21. What are the problems that limited your participation in the project activities?
   a. Marketing problem. (   )
   b. Training problem (   )
   c. Credit problem (   )
   d. Other (specify) .....................

Part Three: other Activities carried by women

22. Why you are not participating in the project activities?
   a. am not convinced with the project activities (   )
   b. I don’t know about the project activities (   )
   c. For family circumstances (   )
   d. Other (specify) .....................

23. What is your occupation? .................................

24. Are you having a Jubraka (back yard garden)?
   a. Yes (   ) b. No (   )

25. If yes, How much the land area? ...............  

26. Mention the types of the crops that you cultivated in the Jubraka?
.................................................................................................................................
27. Are you practice any other IGA to increase your income?
   a. Yes ( )    b. No ( )

28. If Yes, specify.
   ........................................................................................................................

29. From where you bring the food?
   a. Your family farm ( )
   b. From Market ( )
   c. From Jibraka ( )
   d. Other (specify) ...........

30. What is the problems facing women in your area?
   ........................................................................................................................

31. In your opinion, what is the solution for this problem?
   ........................................................................................................................

32. In your opinion, do you think the ARS is a useful project for your area?
   a. Yes ( )    b. No ( )

33. If yes, what are the suitable activities for poverty alleviation?
   ........................................................................................................................
   ........................................................................................................................

Appendix (2)

General information about the villages surveyed:
1) Saraf Al Dai
   Location: East Kadugli
   Area: 25 Km².
   Population: 7,000
   Average no. of household members: 6
   No. of health centre: 1
   No. of schools: 2 Basic School (for both girls and boys)
   No. of market: 0
   Source of water: Wells And Hand Pumps (5)
   Tribes: Nuba (Taysi)
   Main men’s occupations: Agriculture, Nomadism and Business.
Main women’s occupations: Agriculture

2) Al kwik
Location: North Kadugli
Area: 6 km²
Population: 6,400
Average no. of household members: 5
No. of health centre: 1
No. of schools: 2 Basic School (for both girls and boys)
No. of market: 0
Source of water: Hand Pumps
Tribes: Dar Gama (Arab), Tama, Brgo, Barno (Nuba) and Daynka
Main men’s occupations: Agriculture And Nomadism
Main women’s occupations: Agriculture

3) Taisi Abd Elsalam
Location: East Kadugli
Area: 5 km²
Population: 1,500
Average no. of household members: 10
No. of health centre: 1
No. of schools: 3 Basic Schools (2 for boys and 1 for girls)
No. of market: 0 (there is small shops)
Source of water: Wells, Hand Pumps, Shallow Water (Mashesh)
Tribes: Lagori, Um Danab (Nuba), Dar Gami and Rawawga (Arab)
Main men’s occupations: Agriculture and Casual Work
Main women’s occupations: Agriculture

4) Kiga Jero
Location: North Kadugli
Area: 20 km²
Population: 1,300
Average no. of household members: 7
No. of health centre: 1
No. of schools: 1 ((for both girls and boys)
No. of market: 0
Source of water: Hand Pumps, Hafeer
Tribes: Kiga (Nuba), Messeria, and Hawazma (Arab)
Main men’s occupations: Agriculture and Nomadism
Main women’s occupations: Agriculture and Trade

5) Dara
Location: East Kadugli
Area: 4 km²
Population: 700
Average no. of household members: 5
No. of health centre: 0
No. of schools: 0
No. of market: 0
Source of water: Hand Pumps
Tribes: Nuba (taysi)
Main men’s occupations: Agriculture
Main women’s occupations: Agriculture
Kadugli Governorate in Summer Season

Source: Researcher Camera, April 2003.

Kadugli Governorate in Autumn Season (Khareef)

Source: Researcher Camera, August 2001
Chapter One

Introduction
Chapter Two

Literature Review
CHAPTER THREE

SOCIO-ECONOMIC SETTINGS AND PHYSICAL ENVIRONMENT OF THE STUDY AREA
Chapter Four

Results and Discussion
Chapter Five

Summary / Conclusion and Recommendations
Bibliography