

THE ROLE OF PLAN-SUDAN IN SUSTAINABLE RURAL DEVELOPMENT

**A Case Study of Ed Duwiem Governorate,
White Nile State**

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A Thesis Submitted to the University of Khartoum in Partial
Fulfillment of the Requirements for the Degree of Master of Science
In Agricultural Extension and Rural Development

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November, 2003

Dedication

To my Father

To my mother, brothers and
sisters and

To all my friends

With deep love and respect

ACKNOWLEDGEMENTS

Firstly my special praise and thanks to Allah, the mightily who gave me the health and patience to conduct this study.

I would like to express my deep sense of gratitude to my supervisor Dr. Abdel Raouf Suleiman Bello for his supervision, encouragement and great help that enabled me to carry out this study.

Special appreciation to the staff members of Plan-Sudan in Ed Duwiem for their help and encouragement.

I am gratefully, indebted to the staff members of Agricultural Extension and Rural Development Department, Faculty of Agriculture, University of Khartoum for their assistance.

Special thanks are due to the staff member of Faculty of Agriculture, University of Bakht El Rida for their help and encouragement.

Also thanks are extent to Miss Ekhllass Elamin Bashir for typing and preparation of this thesis in final formatting.

Finally, my deep thanks are due to my family particularly my brothers for their finance and encouragement to complete this study. Special thanks to all my friends for their help and encouragement during the course of the study.

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LIST OF ABBREVIATIONS

CBOs	Community Based Organizations
IA	Improvement Approach
NGOs	Non-Governmental Organizations
PA	Participatory Approach
PSEPU	Plan-Sudan Ed Dwiem Programme Unit
RD	Rural Development
TA	Transformation Approach
UNDP	United Nations Development Programme
VDC	Village Development Committee
WES	Water and Environmental Sanitation
WNS	Whit Nile State

ABSTRACT

This study aimed to investigate the contribution of Plan Sudan in the process of sustainable rural development in Ed Dwiem Governorate, White Nile State. Plan Sudan is an International non-governmental organization which established Ed Dwiem Programme Unit in 1994 with the aim of improving the livelihood of the rural households in targeted area.

The organization adopts the integrated rural development programme which depends basically on the community based participation approach through the involvement of village development committees (VDCs) in all stages of development process (planning, implementation, monitoring and evaluation) and the activation of other community through a based organizations established during the project life (i.e. Cooperative Committee, Agric. Committee, .. etc.). Plan-Sudan also involves government units in the development process.

The study used the descriptive statistics method as a tool of analysis. Both primary and secondary data were used, primary data were obtained through the field survey by means of use of a structured questionnaire, and secondary data were obtained from the organizations documents, theses, official reports and other relevant sources.

A multi-stage random sampling procedure was used to select 104 respondents (52 registered and 52 non-registered) from 8 villages to constitute the study sample.

The main results obtained from the study indicated that the organization has contributed to social change through the participation of the beneficiaries in the building of social capabilities and the strengthening of community-based institutions, which is reflected in improving social services in the area (i.e. water, health, education and

others). However, the organization contribution in the field of income generating activities was weak.

The study suggests some recommendations mainly expansion on basic services (health, water, education, ..etc.) in such a way to be in sustainable manner with the participation of beneficiaries, establishment and encouragement of community based organizations and linking that with good training to ensure sustainable local leadership of the development process at the end of the programme, establishment of revolving funds under the supervision of VDCs to guarantee the sustainability of development process, and introduction of more income generating activities to improve beneficiaries living conditions.

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Chapter One

INTRODUCTION

1.1 Background information

Plan-Sudan is an international non-governmental organization working in the area of integrated rural development aims at improving the socio- economic situation of the targeted group , hence to improve their standard of living .It works in social services (i.e. health , education , water and others) as well as the income generating activities through the implementation of the relevant approaches of rural development in particularly the community participation approach.

The main objective of the Organization is to improve the livelihood conditions of the rural families in the targeted area. The activities and programmes used to achieve this aim are implemented in close collaboration with local communities and the concerned local government counter-parts, non-governmental organizations (NGOs) and community based organizations (CBOs).

Plan-International has established its country office and started its programmes in 1977 in Wad Medani (Gezira State), followed by Khartoum Office which has commenced its activities in 1981. Kassala Field has been opened in 1989. In 1993 both Khartoum and Wad

Madani Field Offices were closed as the result of phase out. Later on and due to the country programme restructuring, Kassala Office has been divided into two offices; namely: Kassala and River Atbara. In 1994 Ed Duwiem Programme Unit has been established and followed by two other units; Guli (in Kosti Governorate, White Nile State) and North Kordofan Programme Unit (In North Kordofan State) which have been opened in 1999 and 2000, respectively.

1.2 The Research Problem

Plan Sudan, Ed Duwiem Programme Unit (PSEPU) has been established in 1994 to provide different social services including health, water, education, environment sanitation, and income generating activities. The targeted population is the rural poor (i.e. peasants, pastoralists, agriculture workers and other segments). The main objective of the PSEPU is to improve the livelihood conditions of the rural families highly affected by drought, desertification, famine and flood in the study area in 1980s and early 1990s. It adopted the participatory approach aiming to achieve sustainable rural objectives. It is argued that Plan-Sudan has succeeded to promote sustainable rural development in the targeted areas. Moreover, there are some indicators that the organization has succeeded to generate considerable socio-economic transformation in the study area and hence it has promoted the process of sustainable development through adoption of the participatory approach.

This study is an attempt to investigate to what extent Plan-Sudan has succeeded to attain its prescribed objectives and promote real development in a sustainable manner in the study area.

1.3 Research Objectives

The main objectives of this study are:-

1. To investigate the development activities introduced by the organization and the socio-economic impacts on the targeted population in the study area.
2. To examine how the development approach adopted has succeeded to promote community participation in general and among the beneficiaries in particular.
3. To identify the role of the local institutions established during the projects life cycle (i.e. villages development committees, women committees and other) and their capability to serve the process of rural development in the study area.
4. To suggest some recommendations which may assist the planners, decision-makers and concerned authorities to deal with problems encountered in the development process in the study area.

1.4 Research Hypotheses

To attain the objectives of the this study, the following are the main hypotheses of the study:

1. The approach adopted by PSEPU has succeeded to mobilize the community and promote popular participation in the development activities.
2. The development activities introduced by the organization have succeeded to create considerable socio-economic transformation in the study area.
3. Plan-Sudan has helped effectively institution building component, which encouraged and promoted the sustainability of development activities introduced by the organization.

1.5 Research Methodology and Instrument of data collection

1.5.1 Research methods

The study adopted the historical and descriptive statistics methods. Therefore, the study was basically based on qualitative data.

The descriptive methods include means, frequency distribution and percentage to present the socio-economic characteristics of the population and the development status in the area using computer programme of the statistical package for the social sciences (SPSS) data analysis and management.

A multi-stage simple random sampling procedure was used to select the sub-offices, from the six sub-office the villages were selected according to the number of the villages within the sub-office, which resulted in selection of eight villages (Table 1.1).

At later stage and according to the total number of the registered families in each selected village a 7% sample of 52 registered families was considered adequate, and accordingly an equal size of non-registered sub-community was chosen to end up with a sample of 104 respondents.

Table 1.1**Sample Size by Village and Sub-Community**

Sub-office	No. of village	Selected village	No. of registered	Selected respondents		Total
				registered	Non-registered	
Alaga	19	Wadi Afo	131	9	9	18
		Elmaseed	135	9	9	18
Sufi	17	Emarakha	61	4	4	10
		Sileik	76	5	5	10
Minadrib	10	Minadrib	125	8	8	16
Goz Alahmer	16	Tahara	80	5	5	10
		Filfilla	75	5	5	10
Shabasha	15	Khor Mutrag	109	7	7	14
Total	82	8	792	52	52	104

Source: Plan- Sudan village profile (2002).

1.5.2 Instruments of Data Collection

The study is based on primary and secondary data. Secondary data were obtained from official reports, publications, theses, papers and other sources.

Primary data were collected by using questionnaire as the main tool of data collection. The questionnaire consists of three main parts:

- The first part covers the socio- economic and cultural characteristics of the respondents. It was administrated for the whole sample.
- The second part addressed the benefits from the Plan's programmes and were administrated for registered sub-community.

- The third part covered the perception towards Plan's programmes and activities and administrated for non-registered group.

In addition, observation, group discussion and interviews with Plan officials, governmental officials and community leaders were also used. These instruments were used to investigate the main problems in the area and the role of Plan in the area of the study.

Sample design

The study used the multi-stage simple random sampling procedure through selection of five sub – offices from Ed Duwiem Programme Unit, which consist of six sub offices, each of which consist of about 5-19 villages. Further, 10% of each sub-office villages were chosen using simple random sample, which resulted in selection of 8 villages, as shown in Table 1.1. At later stage and according to the available records which showed that the total number of the registered families in the eight villages were 792 households, a sample size of 52 registered subjects was selected and accordingly an equal size of non-registered sub-group was chosen to end up with a sample of 104 respondents which was assumed as an adequate due to the homogeneity of the targeted population and limitation of resources in terms of time, cost and other facilities.

Moreover, the secondary data were obtained from Plan– documents, reports, papers, theses, and other relevant sources.

1.7 Organization of the Study

This study consists of six chapters:

Chapter one: is an introductory chapter laying out general background about Plan- International Organization, its activities, problem statement, the research objectives, the research hypothesis, methodology and organization of the study.

Chapter two: literature review presents the development concepts and definitions, with the emphasis on rural development concepts, definitions, objectives, principles, programmes and approaches and sustainable rural development.

Chapter three: study area covers location, climate, soil, administrative division, vegetation, economic activities and social services available in Ed Duwiem Governorate.

Chapter four: Plan –International in Sudan, programme with special reference to Ed Duwiem Governorate, its background, activities and the status of development today.

Chapter five: Presentation and discussion of the data analysis and results obtained.

Chapter six: Presents the summary, conclusions and the proposed recommendation of the study.

Chapter Two

LITERATURE REVIEW

2. 1 Some Concepts and Definitions of Development

The term ‘development’ has many different concepts, which are difficult to be articulated. Many scholars and writers to mean different things to different people, wide-ranging, along with several sides have used it.

As indicated by Grant (1978), development is:

“Conceived as a condition to be attained, as the capacity to “grow” and “change” and “develop””, although Lundstrom (1990) describes development as changes which the participants in the process consider as considerable. (In Itorong, R. 1995).

These three ideas of development are combined together in efforts to understand and deal with the phenomenon of development.

Accordingly, Chairman (1978) defined development as:

“Process of enabling people to accomplish things that they could not do before, that is to learn and apply information, attitudes, values and skills previously unavailable to them.” (In: Khair, N. 2001: 21).

With respect to this definition it is clear that Chairman focused his views on the need for education to achieve the development.

Moreover, Todaro, M. (1985) defined development as:

“A multi-dimensional process involving the organization and reorganization of the entire economic and social systems. In addition, the improvement of income and outputs. It typically involves a radical change on institutional, social and administrative structures, as well as popular attitudes and sometimes even customs and beliefs” (Todaro, M. 1985: 87).

This definition indicates three main aspects, to achieve development that are the organization, improvement and change of the economic and social system.

Furthermore, as has been stated by Okley, P. (1983), the concept of development includes the followings.

Introducing new ideas in the social system in order to produce higher per capita income and improve the standards of living through modern production methods.

Implying the total transformation of traditional or pre-modern society into types of technology and associated social organization.

Building people capacities, enabling them to choose participate, decide and create development programmes freely.

From these points mentioned above its clear that Okley, P. directed his views on the concept of development towards the social system.

That is mainly because development is an integrated process. It includes cultural, social, economic and political aspects.

2.2 Rural Development

Rural Development (RD) is a broad concept that means

policies, strategies and practices of projects or programmes, which are directed to the rural population with the assistance of both governmental and NGOs in order to alleviate poverty and hence to improve the standard of living of those residing in the rural area. Thus, rural development projects and/or programmes focus on the people needs and their income opportunities to achieve acceptable level of living. Moreover, the concept of RD has been identified variously by many scholars and institutions. As indicated by World Bank, rural development is:

“Strategies designed to improve the economic and social life of specific group of people of rural poor. It involves extending the benefits of development to poorest among those who seek a livelihood in rural areas. The groups include small scale farmers, tenants and land less” (In: Chamber, R. 1983: 147).

This definition considered rural development as strategy to help the rural people of different classes, sexes, ages and groups to express their needs and to participate and gain benefit from future development.

According to Lele, U. (1975) the term ‘development’ is defined as:

“Improving living standards of mass of low income population residing in rural areas and making the process of their development self-sustaining” (Lele, U. 1975: 20).

Three important features can be drawn from this definition. The first one is improving the

standard of living, which involves mobilizing and allocating of the resources. The second feature is the participation of rural population in the development process, in designing, implementing, monitoring and evaluating the development activities. The last one is that, development projects or programmes should be built on sustainable manner and self-reliance through enabling rural people to have more contribution in the process of the development.

2.2.1 Rural Development Objectives

Rural development is concerned with the improvement of living standard of the mass population in rural areas by introducing different activities aiming at alleviating poverty and income inequality.

According to Postash, I. (1986) the rural development objectives are:-

1. Improving and provision of social services such as (education, health, housing-nutrition, environmental hygiene and water ... etc.).
2. Providing a better socio-economic conditions through introducing relevant income generating activities along with appropriate technology.
3. Mobilizing rural communities on their potential as well as

activating it by training and learning (Adam, M. 1996).

4. Change and improvement of people attitudes toward adoption of new technologies.

2.2.2 Principles of Rural Development

According to Okley, P. (1983), there are six principles should have to be considered in rural development:

1. Access; programmes and benefits should be related to those who are in need.
2. Dependence; rural development should not be dependent upon the development programme for the livelihood. Thus, it must include provision of training, learning and participation.
3. Sustainability; programmes plans and solutions should be relevant to the local economic and social administrative situation through long-term programmes.
4. Going forwards; technical aspects of rural development programmes should help rural people to take the next step in their development and not demand on to take huge technological leap.
5. Participation: rural people should be fully involved in rural development programmes through participation on data collection, project-design, implementation, monitoring and evaluation.
6. Effectiveness: rural development programme should be base on effective use of land resources and not necessarily of their most efficient use.

2.2.3 Some Categories of Rural Development Programmes

Rural development programmes are designed to achieve

different objectives. Theoretically, rural development programmes may be classified under the following categories:

2.2.3.1 Community Development Programme

Community development programme involves the local people efforts to improve their communities, through utilization and improvement of local skills and abilities to encourage the local people to take part and shoulder some responsibilities for supporting and implementing a various of physical infrastructures. It also builds community base organizations and promotes literacy campaigns (UNDP, 1993).

Moreover, according to Ronal, D. and Zae, M. (1981), community development defined as:

“Movement design to promote better living of the whole community through international, guided and target-direction change which obscures the true nature and causes of underdevelopment” (Ronal, D. and Zae, M. 1981: 16).

This definition indicates that community development means ‘improvement’, ‘promotion’ of better living standard with relative emphasis on production and equity.

Holdcraft, M. (1984) defined community development programme as a strategy aiming to promote popular participation to enable the targeted people to participate in the process of the development and to handle local problems with support of appropriate technology needed to foster development process .In this respect he comments the following:

“A process method, of programme which involve people participation at community basis in the solution of their common problems teaches and insist upon the use of

democratic process and joint solution of community problems and activities, that facilitate the transfer of technology to people for more effective solution of their common problem”. (In: Adam, M. 1996: 35).

Furthermore, Augstin, J. (1989) define community development as:

“Implementing a variety of programmes aiming at improving infrastructure, economic, education, hygienic and social aspects such as: drinking water, health, nutrition to weaker section of society”(Augstin, J. 1989: 73).

Generally, the important of this definition indicates that community development programmes target all communities in all aspects of life (economic, social and environmental aspects). Thus such programmes mostly depend on participatory approach to attain their objectives.

2.2.3.2 Integrated Rural Development Programmes (IRDP)

Integrated rural development is a comprehensive programme of action which targets removing constrains or promoting services (i.e. health, education and other fundamental human needs). Such programmes include greater access for poor through credit, extension of technical assistance to farmers. Moreover, economic, social and environmental aspects (i.e. cooperation, gender equity and sanitation) are considered through full participation of beneficiaries, to guarantee their sustainability.

Furthermore, as indicated by Bello, A. (1998) the IRDP aiming to offer better employment opportunities and equitable income

distribution among the targeted communities. Thus such programmes attempt to provide the majority of the poor with accessibility to development activities. This will be achieved through the utilization of the local resources (both human and non-human) supported by appropriate technology and scientific research.

It is the worth mentioning that the IRDP aiming at increasing beneficiaries' participation on problem identification, project design, implementation, monitoring and evaluation. In turn such programmes are managed by both, the services provider and the beneficiary through relevant institutions specially build to promote community participation. These institutions include village committee, development committee, extension committee, income generating activities committee and others), to enable the beneficiaries to participate effectively in the process of their development.

2.2.3.3 The Basic Needs Programme (BNPs)

The basic needs are the minimum requirements that maintain people. They include food security, water, health, education, sanitation, shelter and clothing).

As indicated by Bello, A. (1998). The BNP assumed that a certain minimum level of personal consumption and access to public services can be regarded as essential needs at standard levels. When the basic needs are met, self-reliance will be accessible through bottom-up approach, which enable beneficiaries to better identify the needs and means of their satisfaction more better.

2.3 Some Rural Development Approaches

In order to achieve development in developing countries some rural development approaches have been adopted and used to improve

the situation of different rural communities. There are different approaches used by the government and national and international agencies to achieve socio-economic changes. This subsection distinguishes broadly between two different approaches of rural development; the improvement and the transformation approaches (Long, N., 1977).

2.3.1 Improvement Approaches (IA)

This approach aims to encourage agricultural development within existed peasant production systems. It attempts to foster community development through mobilization of non-human resource and promote popular participation, which is necessary for successful rural development programmes.

According to the World Bank (1960) the improvement approach is described as follow:-

“Programme aiming at the progressive improvement in peasant methods of crop and animal husbandry by working on the peasant on both the psychological and technical plans to induce an increase in his productivity without any radical change in traditional, social and legal systems”. (In: Long, N. 1977. 145).

This approach allows for the continuity of exiting social institutions and land tenure arrangements as well as improving them.

However, as indicated by Bello, A (1998) this approach attempts to foster development in the existing production system. It takes the existing social and economic structures and used to bring change through diffusion of green revolution techniques (i.e. seeds, fertilizers, extension and other inputs), to small farmers (Bello, A.

1998).

The IA takes wider coverage in the different aspects of rural society such as education, health, water, income generating activities and capacity building.

It is worth mentioning that IA may take many forms, one of which is the participatory approach.

2.3.1.1 Participatory Approach (PA)

The PA may takes different forms, it's a bottom up approach, which aiming at creating of popular participation of the targeted population in the all phases of the development process through the relevant bodies introduced in the area (village committee, development committee, .. etc.). The term participatory defined by the World Bank as:

“A process whereby which illegitimate interest in project, influence decision which affect them” (Oxfam, 1992).

There are various forms and degrees of grass-roots participation. They are considered as prerequisite for available development process, the concept of popular participation, as an alternative to the top-down development has proceed effectiveness achieving sustainable development.

Community participation in rural development programmes is a process of activating and integrating beneficiaries through problem identification (data collection), project design (planning), implementation, monitoring and evaluation. Therefore, participation must be seen as exercise of giving the rural poor the means to have direct involvement in development projects and as important activity in itself, which results in empowering the rural poor (economic benefits, significant improvement in production, income, employment and living standards) (Okley, P. Marsden, D. 1984).

According to Gorge, I. (1977) cited that participation includes the following levels:

1. Information sharing which enables beneficiary community to have a good and proper involvement level in development activities.
2. Consultation makes crisis, risks and obstacles- problems available.
3. Decision making which is visible in project design and implementation, monitoring, evaluation and the whole management by beneficiary.
4. Initiating action-one of the results of participation is that community i.e. organized in their own way rather than just responding to out interventions.

2.3.2 Transformation approach (TA)

The TA differs from IA, that TA focuses on creation of radical change in the production and social system of the targeted communities.

Long, N. (1977) cited that the TA attempts to establish new forms of agricultural and social organization which make a radical break in term of scale of operation, production techniques, and socio-legal structure. Thus, it may involve implementation of new land tenure of systems or the establishment of new types of settlements or farms, which necessitate very substantial capital outlay.

Generally the TA has many examples and it includes the resettlement projects, land reform programmes, cooperative farming system and establishment of plantation or capitalist farming system such as the Rahad Scheme and New Halfa Scheme (i.e. resettlement

schemes).

Another example of TA is the Ujamaa development scheme for settlement, which is characteristically small-scale, involve a relatively low level of capitalization and aim at establishing socialist forms of production (Long, N. 1977).

2.5 Concept of Sustainable Rural Development

The failure of the past development approaches to foster rural development in the Third World Countries and hence to alleviate poverty and to achieve equitable income distribution have made for planners, researchers and decision-makers to think and develop new models to promote development in sustainable manner. Such approach focused on the urgent needs of the mass population residing in the developing countries every where, it also deal with severe environmental hazards and ecosystem problems to maintain development for future generation. The United Nations has organized conference on the human environment in 1972 followed by a seminar and inter organizational meetings to formulate strategies for the Third United Nations Development Decade of the 1980's. The meetings concluded that environmental problems are not only the result of development process, but are also the result of lack of development. Examples given in this respect are lack of water both in quantity and quality, in planned housing, sanitation, diseases and natural disasters.

As an alternative a new concept of development has been suggested to put the environmental dimensions and goals into account.

Therefore, planners attempt to introduce more flexible and alternative approaches in their trying to solve the problems that led to the failure of rural development programmes. Furthermore, the basic

needs of the local population and their participation in the rural development process have highly been considered. This consideration has been embodied in formulating programmes which deal with socio-economic, socio-cultural and severe environmental problems of both present and future generations.

The most effective rural development programmes must base on the establishment of strong and active institution buildings, so as to enable rural people to participate in the whole process of the rural development to achieve the sustainability and self-reliance.

Sustainable rural development means the positive changes, improvement and participation of beneficiaries community in the development process, through optimum utilization of natural resources, social organization that generates the motive and desire to change, good training to improve the skills and utilization of appropriate technology.

Thus the intimate complex relations between development strategies, resource use, the pace of economic growth, technology and preservation of the natural environment have become the most important issues in designing and implementing development and improving quality of the life. Thus the term and phrases like “integrated approach to environmental and development” “environmentally sound development”, “alternative pattern of development and life styles”, “eco-development” and “sustainable development” have been introduced to describe development. But the later has come to mean different things to different people in different situations. It is also used to describe different economic activities and social values (ibid. 1996)

Thus, as indicated by FAO, (1989), sustainable development

mean:

“Management and conservation of the natural resource base and the orientation of technological and institutional change in such a manner so as to ensure the attainment and continued satisfaction of human needs for present and future generations (in agricultural, forestry and fishery sectors) conserves land, water plant and animal genetic resources. It is also environmentally non degrading, technical appropriate, economically available and socially acceptable” (FAO, 1989).

This definition revealed that the sustainability concerned with four aspects; the environmentally management of the resource, the efficient and appropriate technology, the effective institutional building and the satisfaction of basic needs.

As defined by Allens (1980), sustainable development is:

“A development which is likely to achieve lasting satisfaction of human needs, which are different and they vary among the same society classes within the same community according to age, education level, culture and social status. To meet the aspirations of present and future generations, we need a lasting satisfaction for human needs through development programmes (sustainable development)”(In EITohami, A.1999)

The concept of sustainable development as applied in the Third World is directly concerned with improving the poor standard of living at grass roots level which can be quantitatively measured in terms of increased food, real income, educational services, health, sanitation, water supply, emergency food stock, cash .. etc.).

Thus, sustainable development requires the participatory

approach which assumes that the community should participate in all stages of the development activities.

Tolba, M. (1991) argued that the present international levels of energy consumption are endangering the existence of the world non-renewable resources and worsening pollution worldwide. Sustainable development attempts to reduce the present levels of energy consumption and aims in the long run, at substituting non-renewable sources of energy (In: Mahagoub, E. 2002).

From the foregoing, the concept of sustainable development does not only to maximize material well-being of people but also it directed special attention to improve quality of life and to maximize intellectual and human aspirations.

Barbier, E. (1989) defined sustainable development as:

“That economic activities which aim at raising systemically the level of social welfare with the maximum care and protection of exiting natural resources and with minimum cost and damage to the environment”.

Therefore, sustainable development concerns with the environmental conservation as well as the raising the standard of living.

Chamber, R. (1988), argued that for achievement of sustainable livelihoods five major lessons could be drawn. These concern: i) A learning-process approaches ii) people priorities first iii) secure rights and gains iv) sustainability through self-help iv) Caliber commitment and continuity of staff (In: Khair, E. 2000, 22).

The principles of sustainable development, as mentioned by the International Union for Conversation of Nature (IUCN) Conference on conservation and development held in Ottawa (1986) are:-

- a. Integration of conservation and development.
- b. Satisfaction of basic human needs.
- c. Achievement of quality and social justice.
- d. Provision of social self-determination and cultural diversity.
- e. Maintenance of ecological integrity.

- f. Self-reliant, to rely on own strength and resources rather than acceptance of passive assistance.
- g. Ensuring sustainable level of production.
- h. ensure local participation in planning and implementation
- i. Use of appropriate technology.

Moreover, the conference reported that to achieve the objective of sustainable developments there are certain requirements which includes:

- a. A political system that secures citizen participation in decision making.
- b. An economic system that is able to generate surpluses and technical knowledge on self-reliant and sustained basis.
- c. A social system that provides solutions for the tensions arising from disharmonious development.
- d. A production system that respects the obligation to preserve the ecological base for development.
- e. A technological system that can search continuously for new solutions
- f. An administrative system that is flexible and has the capacity for self-correction.
- g. An international system that foster sustainable patterns of trade and financing.
- h. Using different methods which best suit environmental and culture.
- i. These methods should be represented by small local projects that steam from the local communities' grass roots and ensure their full participation.

Generally sustainable development is difficult to be defined precisely because it deals directly with different aspects of human life

ranging from rural development, environmental, cultural, social, economic to technological humanitarian and political aspects of massive groups.

2.4.1 The role of institution building in achieving sustainable rural development

The concept of institutional building is defined as being the process of establishment and/or improving the ability of institutions to make effective use of human and finance resource available.

According to Adam, M. (1996):

In seeking to strengthen the institutional base for sustainable rural development, care must taken to ensure that is the values are right and that both the scale and orientation of any institution are appropriate. This is because, institutions are not neutral factors in the development process; they represent values, which in turn represent the investment of some political or social group. As a consequence they can be highly exploitative. One of school of thought maintains that today's institutional society, health, learning, dignity, independence and creative endeavour are defined as little more than performance of the institutions which claim to serve these ends. It requires that local institutions must have access to the information about national development and resource use policies, in addition to the skills to interpret information in order to formulate realistically the own expectations.

Local origination must be the bedrock of any participatory development process, whether urban or rural, formal or informal, its among the most important and active shaping their environment and can be crucial for sustainable resource use (Pretty, J. and Sandbrook, R., 1991).

Chapter Three

THE AREA OF STUDY

(The Socio-Economic Setting of Ed Duweim Governorate)

3.1 Location

Ed Duweim Governorate is located between the latitudes 13° 30`-14° 10` North and the longitudes 30°-31° East in the White Nile State (Map 3.1). It covers an area of about 357143 feddans with total population of about 322209 persons.

The Governorate consists of five localities; namely, Ed Duweim, Shabasha, Elweihda, Eltadamon and Umrimita and consisting of a number of villages (Map 3.2). Table (3.1) below shows the total population of the Governorate by locality.

Table (3.1)

Population of Ed Duweim Governorate by Locality

Locality	Population size
Ed Duweim	66281
Shabasha	77.879
Elweihada	32.495
Eltadamun	56.446

Umrimta	88.908
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Source: White Nile State Records (2000)

3.2 Geography and Soil

Most of Ed Duweim Governorate is dominated by alluvial silty soil, there are deep medium to heavy cracking clays, with low salt contents and a high natural fertility, organic matter content is low and nitrogen content is very low. There are areas of sandy soils associated with dune formations in the west boundaries, which are unsuited for irrigation but is used for cultivation of rain-fed sorghum. The dominant climate is semi-arid tropical climate with rainy season, which varied in length and duration, followed by frequent dry periods. The rainfall is 100 mm in the North and 400 mm in the South. Peak rainfall during July-August (IFAD, 1999).

3.3 Vegetation

Semi-desert climate plants such as Sonut (*Acacia nilotica*), Saial (*Acacia tortilis*), Talih (*Acacia seyal*), Marikh (*Leptadenia pyrotachnica*) and Cafor (*Eucalyplus species*) are the most dominant among the tree species. Also some shrubs are found in the Governorate such as Elgao (*Aristia species*), Beno (*Eragrostis termala*), Abuasabie (*Dactyloctenium egyptia*), Haskaneet (*Cenchrus setigerus*), and intervention with some grass species which are very good for sheep and goats feeding (Range and Forest Administration, Ed Duwiem Governorate,2002).

3.4 Economic Activity

Agriculture and animal breeding are the main economic activity in the study area in addition to some off-farm activities includes trade and industries. Thus agriculture and animal breeding play an essential role in economic and social development activities of citizens of the White Nile State in general and Ed Duweim Governorate in particular.

3.4.1 Agriculture

Agriculture is the main economic activity adopted by the majority of the population in Ed Duweim Governorate. The main crops grown are food crops (i.e. sorghum, wheat and millet), which are widely grown in all the parts of the Governorate and considered as the staple food for the citizens of the Governorate and cotton, as the main cash crop in addition to some minor crops such as watermelon, muskmelon and vegetables, on the lands adjacent to the river (White Nile). There are large and small perennial pump schemes and

“Grouf” (cultivation practiced on the river recession lands). Away from the River, traditional rainfed farming accompanied by livestock raising are practiced on both the clay and sandy soils. According to Salih (1997) the lack of finance, bad management, irrigation problems and land preparation are the main factors curtailing agricultural production and productivity in the Governorate. Table 3.2 shows the cultivated area and productivity of the main crops in Ed Duweim Governorate during the period 1996-2001, where the average productivity was found to be 1.756 guntar/feddan, 3.8 sacks/feddan and 2.1 sacks/feddan for cotton, sorghum and wheat, respectively.

Table 3.2

The Area and Productivity of the Main Crops Cultivated in Ed Duwiem Governorate, During the Period 1996-2001

Season	Cotton		Sorghum		Wheat	
	Area (feddan)	Productivity (Quntar/fedd)	Area (feddan)	Productivity (sack/fed)	Area (feddan)	Productivity (sack/fed)
1996/97	14533	2.44	19645	4	3372	2.8
1997/98	14598	2.01	28520	4	4980	2
1998/99	9691	2.10	12264	3	6051	2
1999/2000	2100	0.42	34104	2	1051	2
2000/2001	1042	1.8	19490	6	1246	1.7
Average		1.756		3.8		2.1

Source: Ed Duweim Agricultural Production Management (2001)

3.4.2 Livestock

Livestock production is considered as a second economic activity after agriculture in the Governorate. According to the 1996-1997 livestock censuses, the State has a good number of animals,

estimated to be about 6.6 million heads (Salih, 2002). Local breeds of cows are the dominant livestock in the area followed by sheep and goat, in addition to horses and camels. Table 3.3 shows that total number of livestock in Ed Duweim Governorate in 1999. This animal resource together with the pasture resources has initiated the growth of milk production and industries particularly cheese.

Table 3.3

Number of livestock in Ed Duweim Governorate
in 1999

Livestock	Number of livestock
Sheep	2.000.000
Cows	1.500.000
Goats	1.00.000
Horses	850
Camels	250

Source: Ministry of Agriculture and Animal Wealth-Final Report
(1999)

3.4.3 Industry

Generally, Ed Duwiem Governorate is considered as one of the poorest industrial Governorates, which is characterized by absence of heavy industries. The main industries in the Governorate are cheese production and salted fermented fish (faseeykh).

Moreover, it was observed that Ed Duwiem Governorate population suffered from low income and poor skills.

3.4.4 Off-Farm Activities

As a result of the deterioration of the agricultural production, the people of Ed Duwiem Governorate have been engaged in other activities such as public and private sectors and commerce, in addition to both internal and external migration.

3.5 Social services

3.5.1 Education service

Education services in Ed Duweim Governorate has started at early time by the establishment of Bakht Elrida Institute .As indicated by Salih, E. (2000) most of villages have primary schools which are mostly built by local materials. The main problems faced the education are:

- **High education fees.**
- **Shortage of schools supplies such as chalks, stationary and books.**
- **Lack of trained teachers.**
- **Low rate of children enrollment at school age in basic education**
- **Low awareness of some parents on the importance of education.**

3.5.2 Health services

Ed Duwiem Governorate characterized by poor health services, there is only one hospital in Ed Duwiem Town and five rural hospitals with one

general doctor in each. The situation of health services in the villages is very poor, traditional medicine is widely spread (i.e. herbs and Mehaya by Quran) illiteracy is the main reason behind the above mentioned traditional practices.

3.5.3 Water Resources

White Nile River is the main source of water in the Ed Duwiem Governorate. The peak of the river flow at the end of October and the least at the end of April. This in addition to the groundwater from shallow wells in addition to hole “hafeer”.

Hygienic domestic water supplies are found in the main towns, and in some of larger villages. Most villages are used to have water directly from the river or canals and/or reservoirs.

3.6 Development Process in the Governorate

3.6.1 Government Efforts

The role of government in the process of development is very poor. This is reflected in poor

health, education, and water services, as well as the income generating activities except its shares with exception of people in some projects financed by NGOs through providing the local component funds.

These projects are seen as considerable government efforts, with great impact on the country development especially in the services and health fields, water, education and productive project such as rehabilitation of old projects and provision of credit and agricultural services.

3.6.2 NGOs programmes

i. International Fund for Agricultural Development (IFAD)

It started its activities in 1994 in agricultural development, projects rehabilitation, provision of finance and income generating activities i.e. sewing, nutrition, industries, credit, household economy and training (Ed Duwiem Governorate, 2003).

ii. Adventist Development and Relief Agency (ADRA)

It began its activities in 1991. It includes training programme based on income generating activities such as sewing, agricultural extension and household economies, in addition to construction of hand pumps in some villages (Salih, 2002).

iii. United Nations Development Programme (UNDP)

It works on the field of desert encroachment and control through financing the agroforestry programme with the aim of fixation of the sand dune. Also it established hand pump for drinking water (Ed Duwiem Governorate, 2003).

iv. Plan Sudan

It started its activities in Ed Duwiem Governorate in 1994 as a development organization. It covers four issues: capacity building, awareness, education and credit as indicated in chapter four (ibid., 2003).

Chapter Four

PLAN INTERNATIONAL

4.1 Background Information

As indicated in its leaflet, (2000), Plan International is an international NGO working in the field of humanitarian, child focused development without religious, political or governmental affiliation. Child sponsorship is the main objective of the organization. It also considers the potential capabilities of children in societies with respect to their rights and dignity. It is considered as one of the world largest child sponsorship NGOs. Currently, Plan International is working in 43 developing countries under the direct supervision and management of its international headquarters based in the United Kingdom (Plan leaflet, 2000).

The mission of Plan International is working to achieve improvement in the quality of life of deprived children and their mother in developing countries through a process that joint people across culture and adds meaning and value to their life. To achieve excellence in meeting the needs of the people, it serve by continuous improvement of its programmes, which include provision of health services, education, water and other community needs (i.e. income generating activities, agricultural extension and improved seeds).

The Organization funded mainly by individuals sponsor from Australia, Belgium, Canada, Denmark, France, Germany, Japan, Netherlands, and Republic of Korea, Norway, Sweden, UK, USA, Brazil, Thailand, Finland and Spain. As indicated in its leaflet 2000 direct benefits are brought by Plan International to cover more than

one million poor children, their families and communities all over the world through its regional and sub-regional offices supporting programmes in the countries which covered by its programmes.

Moreover, Plan International works through communities with communities base organizations such as village development committee, in addition to the governmental bodies, NGOs and others. Such cooperation is base on mutual respect with specific rights and obligations for all parties seeking to strengthen the long-term capabilities of their community members to manage matters that affect the well-being of their children. This includes organizational, technical, financial and managerial capacities of individual and their local institutions.

It is worth mentioning that Plan international (PI) was founded in 1937 as “Foster parents plan for children in Spain” to help children whose lives disrupted by Spanish civil war. In 1940s with the outbreak of the Second World War, Plan extended its work to include displaced children within war–torn Europe. Moreover, in 1950 and with the need in Europe being reduced, Plan expanded its activities further to include children who are in need every where to benefit from its work. Thus, it was renamed (P I) to reflect its aim of brining constructive lasting change to the life of children in need all over the world where they are, and whatever their circumstances.

Plan International commenced operations in Sudan in 1977 under the umbrella of Plan International’s south and East Africa Regional Office. It has started its activities in Gezira through its first office which was established in Wad Medani followed by Khartoum office which was opened in 1981. Kassala Office was then opened in 1989. In 1993 both Khartoum and Wad Medani field offices were

closed as a result of phase out. Later and due to the country programme restructure, the Kassala Filed Office was divided into programme units; Kassala and River Atabra. In 1994 Ed Duwiem Programme Unit was established and later two programme offices have opened: Guli in Kosti Province and Elobied in North Kordofan programme units, which were opened in 1999 and 2000, respectively.

Currently, the Organization is providing assistance to 37010 poor children and their families and communities. It operates in close collaboration with the local communities and concerned local government counter-parts. Its efforts have been appreciated by local authorities at state and federal levels.

4.2 Plan's Principles

As indicated in its leaflet (2000) Plan International work rests on observing and adopting the following principles:

4.2.1 Child

This deals with improving the quality of children life to ensure their stability, strengthening the capacities of families and communities and their participation in development efforts for the ultimate benefits of children.

4.2.2 Learning

Depending on its internal and external sources Plan promotes learning for partners and local communities in order to attain its objectives and mission.

4.2.3 Integration

Plan's program interventions result in coherent program strategies to improve the quality of children's life.

4.2.4 Gender Equity

Plan works towards the eradication of gender-based inequalities in opportunities, access and control over resources. This is to be achieved through participation on the whole process of the development, training and own them productive projects.

4.2.5 Environmental Sustainability

Plan promotes equitable and sustainable access to opportunities and use of natural resources by the people with whom it works based on understanding of their relationship with the environment. That it provide nurses, fixation sandy dune, shelter belt and increase the environmental awareness.

4.2.6 Empowerment and Sustainability

Plan seeks to strengthen the long-term capabilities of all community members to manage matter that affect the well being of their children. This includes organizational, technical, financial and managerial capacities and strengthening their ability to affect in the priority and the type of services provided by local institutions and organizations. Also it focuses on the attention towards strengthening the abilities of these institutions and organization in the long run, through training, skill development and participation on decision making.

4.2.7 Cooperation

To achieve its objectives, Plan works through local communities and with the communities based organization (i.e. village development committee, agricultural committee, health committee, and women committee), governmental bodies, NGOs, and other

relevant bodies. In this respect, Plan and its cooperative bodies determine their rights and responsibility so as to strengthening the community capability in the way to attain their objectives.

4.3 Plan Sudan Objectives

As indicated in the Country Strategy Plan (1999-2003), the main objectives of Plan International (Sudan) are:-

1. To increase agricultural production, raise disposable household income of Plan families through improving and diversifying sustainable agricultural production by access to extension and other related services.
2. To raise disposable household income of Plan families through increasing access to financial services (i.e. agricultural credit, improved seeds and handicraft) for the poor and encouraging their use.
3. Provision of employment opportunities for all families in Plan communities.(through income generating activities)
4. All families in Plan communities have access to an effective, efficient community-based primary health care system.
5. All families in Plan communities have access to safe drinking water all years round.
6. All families in Plan communities use basic sanitary facilities (latrines, solid waste and liquid waste disposal system).
7. Most of Plan children in Plan communities attended primary school.
8. Provision of the minimum requirements of schools to all schools in Plan communities according to the school quality index.

9. All foster children in Plan community demonstrate increase awareness, sensitivity and understanding of their foster parents (FPs) countries.
10. All foster children and foster parents in Plan communities perceive that their development expectations have been met.
11. To increase the capacity of Plan communities to provide and manage their resource, in sustainable way (CSP, 2003)

4.4 Means and Approaches

Plan Sudan has adopted deferent means and approaches to attain its objectives in the targeted areas. These include:-

In the first visit of Plan to its communities, people are mobilized towards their communities' development through orientation meetings and group discussions to raise their awareness on their problems.

◆ **Participatory approach**

As indicated in Guide Book (1999) Plan International (Sudan programme) is based on a triple partnership composed of the communities, the government and Plan. Each part has specific responsibilities to fulfill but the ultimate goal is directed towards enabling the communities to be in control over their development process and destiny in future. To achieve this objective in sustainable manner, development through participation approach is adopted. This approach aim to encourage the people participation. Thus it is expected to enable the community to depend on themselves in the long-run through construction effective institutions building, it is also believed that this approach encourage cooperation and collaboration, and responds to the real needs of the communities.

Activities:

- In the field of the development activities Plan –Sudan introduce some activities to increase the income of targeted population through either rehabilitating an on going project or financing new activities such as agricultural services, handcraft and animals in small scale.

4.5 Plan Organizational Structure

The establishment of the country structure in Sudan was concluded in October 1977. It consists of different offices at different levels, each of which has its main functions and responsibilities as shown in Figure 4.1. The relation among these offices are as follow:

The country office (CO) based in the capital city of Khartoum which staffed by Sudanese team comprising of Country Director (CD), Internal Auditor (IA), Operation Support Manager (OSM), Programme Support Manager (PSM) and Sponsorship and Grounds Supporting Manager (SGSM). They play the main role in ensuring the smooth operations and quality services to the plan community and responsible for setting the over all direction of the organization and supportive policies and strategies. At the state level, the Programme Unit Manager (PUM) who manage and supervises the overall activities at the PU level and play representation role for the plan in the area, assisted by technical staff including Community Development Coordinators (CDCs) and programme secretary, volunteers to implement programmes and activities. At the village

level, Plan established Village Development Committee (Community Volunteer), in each village the committee consist of about 10-17 person, from them derived other small committee like agricultural committee, women committee, account committee and others. They participate in the whole process of development (planing, implementation, monitoring and evaluation).

4.6 The Organization Development and Its Status Today

Ed Duweim programme Unit started in 1995, then it has been developing and progressing to provide many services and inputs. It has adopted the “participatory approach” to achieve its objectives.

The programme unit provides services to 83 villages through six sub- offices. The services rendered by Plan Sudan include water, health, education, training, environmental sanitation as well as income generating activities.

4.6.1 Implementation

The implementation of the programme depends on the triangular collaboration with the local community, concerned local government partners, and other NGOs operating

According to Kabbar, R.(2002: 29)

“Plan Sudan works closely with respective government departments to focus and maximize efforts to chive tangible result in shorter period of time and avoid duplication. Moreover, it provides the technical advice, contribute financially and supervise communities, for follow up and sustainability of the projects”.
(Kabbar, R.2002:29)

4.6.2 Achievement

According to Plan Sudan village profile 2003, the following programmes were introduced:-

- ◆ **Water**

In the field of water the organization established about 21 'hafirs,' one complete and eight (8) partial water lines. In addition to (14), water committees. The Organization also exerted considerable efforts in raising awareness on water health and management.

◆ **Health**

The provision provided health services through three (3), dimensions:-

First: Health facilities: These facilities comprised 15 Primary Health Care (PHC) units, 41 dispensaries, 18 health centers, and 5 rural hospitals. The facilities include: equipment such as solar refrigerators, maintenance, construction of new buildings, and training course

Second: Midwives course which includes 155 trained midwives, 91 traditional birth attendants (TBA)

Third: Garbage disposal that includes establishment of 8.151 latrines for households and schools, litter baskets and others.

◆ **Education**

In the field of education, plan contributed in establishment, maintenance and rehabilitation of 129 pre-school, 126 basic schools for girls, 126 basic schools for boys, and 116 cooperation basic schools.

The Organization render its aid in items such as school equipment (school books, chalks, furniture and others), establishment of class rooms, offices, and teachers' boarding black. Plan, also, provided some services to the adult education programme.

The Organization conducted periodic courses for basic schoolteachers and mistresses.

◆ **Environmental sanitation**

Plan executed many programmes in the field of environmental protection and sanitation. It established village nurseries, distribution of tree seedlings, and broadcast pasture seeds in the area, fences, and sand dunes fixation. In addition, the Organization distributed gas-cylinders and improved stoves to the registered households under Plan families so as to reduce the uncontrolled cutting of wood

◆ **Income generating activities**

Plan carried out a few numbers of pilot projects in the field of income generating activities. It provided credit facilities in the field of livestock husbandry and agriculture. Besides that, it provided credit for rehabilitation of women training centers (tailoring, sewing, and rural industries).

RESULTS AND DISCUSSIONS

This chapter presents and discusses the empirical results of the study. It consists of two parts the first part shows the main characteristics of the respondents and the second deals with the socio-economic impacts of the organization in the study area.

5.1 Socio-Economic Characteristics of Respondents

5.1.1 Sex distribution

Table (5.1) shows the distribution of the respondents by sex. It indicates that the male-headed households in registered group are more than the female headed households, representing 82.7% and 17.3% respectively. Also, the male headed households in non-registered group are more than the female headed households, representing 90.4% and 9.6% respectively, Hence, the majority of the respondent in both groups are male headed households who accounts to 86.5% of the total number of the respondents. These results, may indicates low level of migration in the both sub-community due to positive socio-economic impacts of the development activities introduced by the Organize in the study area.

Table 5.1

Frequency Distribution of Respondent by Sex

Sex	Registered		Non-registered		Total	
	F	%	F	%	F	%
Male	43	82.7	47	90.4	90	86.5
Female	9	17.3	5	9.6	14	13.5
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.1.2 Age structure

Table (5.2) shows the distribution of the respondents according to their age. It reveals that about 81.8% of the respondents are economically active and fall in the age group range between (20-60) years old. Moreover, there are about 18.2% of the respondents their age is above sixty years old. The high percentage of economically active facilitates the sustainability programmes and the activities introduced by the Organization. This due to the fact that the young more risk takers than the old. Also this indicates low rate of rural-urban migration among the economic activities population who may contribute actively in the improvement of economic activities in the study area and hence lead to improve living conditions of the population/beneficiaries.

Table 5.2

Frequency Distribution of Respondents by Age Groups

Age group	Registered respondents		Non-registered respondents		Total	
	F	%	F	%	F	%
20-29	5	9.6	4	7.7	9	8.7
30-39	9	17.3	20	38.5	29	27.9
40-49	22	42.3	10	19.2	32	30.8
50-59	10	19.2	5	9.6	15	14.4
60-69	5	9.6	7	13.5	12	11.5
70 above	1	1.9	6	11.5	7	6.7
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.1.3 Main Occupation

The study reveals that agriculture is the most dominant activity in the area, about 38.5% of both registered and non-registered reported agriculture is their main occupation and the main source of income. Rearing animals is less practiced due to conflicts in the limited resources, the shortage of veterinarian care and other services are another problem facing the activity of livestock ownership in the area. Only 8.7% of respondents practice this activity as another source of income. The table also shows that about 12.5% of the respondents are government officials (e.g. teachers, officers and other). It is observed that the government officials were more in the non-registered sub-community since most of them are living outside the area and because the policy of the Organization does not allow the registration of

people who are not permanently settled in the area. However, about 21.2% of the respondents are in others field including agricultural workers, fishermen, craftsmen and others. It is observed that non-registered are more than registered sub-community with respect to labour. Moreover, 19.2 of respondent reported that their main occupation is trade (Table 5.3).

Table 5.3
Frequency Distribution of Respondents by Occupation

Occupation	Registered respondents		Non-registered respondents		Total	
	F	%	F	%	F	%
Farmer	20	38.5	20	38.5	40	38.5
Live stock producer	7	13.5	2	3.8	9	8.7
Government	5	9.6	8	15.4	13	12.5
Labour	10	19.2	12	23.1	22	21.2
Trade (petty traders)	10	19.2	10	19.2	20	19.2
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.1.4 Education Level

Table (5.4) shows that 27.9% are illiterate. The illiteracy rate is more in the non-registered group (36.5%) than in the registered group (9.2%). This finding suggests that the educated members of the community responded more favourably to the project. About 17.3% of respondents attended khalwa. While about 54.9% of the respondents received formal education, as 25%, 8.7%, 15.4, 5.8% primary, intermediate, secondary, and university level, respectively.

Table 5.4
Frequency Distribution of Respondents by Educational Level

Education level	Registered respondents		Non-registered respondents		Total	
	F	%	F	%	F	%
Illiterate	10	9.2	19	36.5	29	27.9
Khalwa	11	21.2	7	13.5	18	17.3
Primary school	14	26.9	12	23.1	26	25.0
Intermediate	4	7.7	5	9.6	9	8.7
Secondary	9	17.3	7	13.5	16	15.4
University	4	7.7	2	3.8	6	5.8
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.1.5 Marital Status

Table (5.5) shows the classification of respondents by marital status. It indicates that 87.5% of respondents are married, representing 84.8, 90.4% as registered and non-registered, respectively. Although the higher percentage of non-registered but the registration procedure, which depend on presence of children in the family and in a certain age group. The total also shows that some of respondents are single, divorced and widows amount 4.8%, 6.1% and 1%, respectively.

Table 5.5**Frequency Distribution of Respondents by Marital Status**

Marital status	Registered		Non-registered		Total	
	F	%	F	%	F	%
Married	44	84.8	47	90.4	91	87.5
Single	2	3.8	3	5.8	5	4.8
Divorced	5	9.6	2	3.8	7	6.7
Widow	1	1.9	0	0	1	1
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.1.6 Family Size

Table (5.6) shows that the family size of the sample household ranged between 3-18 members.

The average family size is found to be 9 and 7 person for registered and non-registered sub-community, respectively, the average family size amount to 8persons of the total respondents.

The table also indicates that most of the respondents in the registered sub-community fall in the family size 6-9 persons and constitute 50%. While those in the family size 3-5 persons represents 21.2% and those family size above 10 persons constitute 28.8%.

In the non-registered sub-community, the respondents in the family size 6-9 persons constitute 50%, those ones with the family size 3-5 persons represent 29% and above 10 persons represent 28.84% and 13.46% respectively. It is observed that the majority of the respondents in the family size 6-9 persons constitute 50%. While 36% and 21% of non-registered and registered, respectively were within the family size of 3-6 persons. However, the study reveals that the registered families are bigger more than non-registered ones, this result explains that the targeted group of Plan is children.

Table 5.6**Frequency Distribution of Respondents by Family Size**

Family size	Registered respondents		Non-registered respondents		Total	
	F	%	F	%	F	%
3-5	11	21.2	19	36.54	30	28.9
6-9	26	50	26	50	52	50

10-13	7	13.5	5	9.62	12	11.5
Above 13	8	15.3	2	3.84	10	9.6
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.2 Socio-Economic Impacts

5.2.1 Social Impact

5.2.1.1 Participation

◆ Social participation in community organization

According to Plan Sudan Organization philosophy work, the targeted group is the backbone of the programme execution, and this approach is an effective approach in rural development programme. So any programme will not start unless the members in the community identify their types of participation. Therefore, all the respondents gave positive ideas about the public participation. From the interview, it was found out that there were many members who participated in more than one committee. As confirmed by (Kabbar, R.2002), who said 'there are three organization (village development, popular and cooperative committees), in the area of study where the members were participants'

◆ Participation in villages committees (VDC)

As shown in Table (5.7), 25% of the respondents were members in the village development committees, but most of them were from the registered group represented only by 36.5%, and non-registered represented by 13.5%. Moreover, the table shows that the majority of the respondents are not participating in the village committee, they are about 75% of the total respondents. The high percentage of registered group indicates that most of direct beneficiaries were participated in the village committee, which enhance the sustainability of the programme applied.

As indicated by Bakelite, (the head of the VDC), said that:

The means of participation represent money collection, work management, supervisions and follow up, and evaluation.

Table 5.7

Distribution of Respondents by Participation

	Registered respondents		Non-registered respondents		Total	
	F	%	F	%	F	%
Participant	19	36.5	7	13.5	26	25
Non-participant	33	63.5	45	86.5	78	75
Total	52	100.0	52	100.0	104	100.0

Source: Field Survey (2003).

5.2.1.2 Services

As indicated in chapter three the social and economic situation of the respondents in the area of study was poor before Plan International intervention. Therefore, it was concluded that Plan Sudan play an important role in provision and introduction of improve of services such as water, education, health services) as well as income generating activities in the area of study.

◆ **Water services**

Chapter three depicted that there was water problem in the area of the study. During the survey it was observed that Plan Sudan contributed to the establishment and construction some of water sources including wells, water line, hand pumps and “hafaer” as indicated in chapter four.

Also group discussion, most of the respondents commented that:

“The quality of drinking water to some extent is good”.

◆ **Health**

As shown in chapter four the Organization contributed in improvement of the health situations in the area of the study. The contribution included the Primary Health Care services (PHC), training and raising health awareness.

In the (PHC), Plan aims to promote (PHC), through some means including the construction of health centers and health units, rehabilitation and maintenance of hospitals in addition to vaccination, malaria control and others.

It is the worth mentioning that Plan Sudan conducted many training programmes in health training activities including health management, supervision, children vaccination and midwives, traditional birth attendants (TBAs), eradication of bad habits, diarrhea protection and animal health care.

This argument confirmed by Osman, (traditional leader) of Elminadribe village who commented that:

“The course of first aid, which is conducted, by Plan Sudan at the village provided more benefits such as the trainees are now able to treat minor cases of illness. He hopes that there will be many courses of such kind to be conducted in future”.

◆ **Education**

It was observed that there were obvious changes in the field of education in village where Plan Sudan is operating. This is indicated by the rehabilitation and maintenance of schools, provision of

furniture, equipment, teaching aids, and so on, for example, Esefaria village schools.

This argument was confirmed by one of the education officers stated that:

“Plan supplied these schools with furniture, books, chalks, sport equipment’s and others. It constructed two classes and one office in each school in the area of study. In addition to maintenance, and rehabilitation of these institutions. Furthermore, Plan conducted many training courses for teachers from various levels for example, training of class masters”.

This result indicates that the education services provided by the Organization have positive effects in the field of education.

◆ **Training**

Plan considers training as an important issue of the programme. The researcher concluded that the training activities were associated with the implementation of all services rendered (i.e. water, health, education, environment, and others).

In this context Sheikh Abadalla (traditional leader) comments that:

“Plan offered training courses in the field of education, vaccination, nutrition, management, supervision, and monitoring and evaluation”.

Also ‘Sheikh’ Bakheit states that:

“The most important thing of training courses is training of trainers (ToT), so as to generalize the benefit to the whole community”.

One of the village development committee leaders confirmed that:

“The training of the committees was on project management and this knowledge enable them to lead the community towards development”.

These results indicate the positive role of Plan Sudan in promoting and fostering the process of development towards achievement of sustainable rural development.

◆ **Environment**

As indicated in chapter three the area of study suffers from desert encroachment and erosion (especially the western area), and their effects on both agriculture and mankind.

During the survey it was observed that the Organization contributed in reducing the desertification effect by implementing some practices such as conservation fences for natural grasses and trees, sand dunes fixation, establishment of tree nurseries and seeds scattering. In addition to that the Organization provided some assistance by distributing stoves and latrines.

These efforts have been confirmed by one of the Forestry department administration he stated that:

“The Organization exerted considerable efforts in improvement of environmental and health conditions of the area”.

The registered and non-registered respondents benefited from the services of water, health and education (Table 5.8). Moreover, about 23.1 %, of the respondents said that the Organization provided environmental services such as tree nurseries, natural fences, sand dunes fixation, and others.

However, the registered members received additional services in areas of construction of latrines, butane pot gases, improved stoves mosquito nets and subsidized treatment.

Table 5.8
Frequency Distribution of Respondents by Benefits from Plan Programmes

Benefits	Who benefited	
	F	%
Water, health and educational services	70	67.3
Water, health, education, energy.	10	9.6
Water, health, education and seedlings	42	23.1
Total	104	100.0

Source: Field Survey (2003)

5.2.1.3 Other Benefits

◆ Organization and Institutional Building

It is clear from interview, observation and group discussion that Plan-Sudan programmes put into account the needs and priorities of the local community.

According to the Plan-Sudan philosophy, the implementation and execution of the development programmes should be done with the community participation and consultation through villages development committee, extension committee and other committees.

However, based on survey findings; the application and actual practice of this philosophical approach were quite different.

On the contrary to the planning and implementation phases the local people participated in the projects identification, formulation, prioritization, implementation and consulted in other phases, but in respect of organization and committee meeting there are absence of regular meeting and inadequate training in some field which require continuous training. In spite of the training of villages committee on fields of project management, education, health, environmental conservation and animal health care, some courses need frequency training. It is worth mentioning that to attain its prescribed objectives Plan gave priority to women participation in the local institutions such as village development committees.

5.2.2 Economic Impacts

Although the economic situation in the area of study is poor as indicated in chapter three, but the Organization always focuses on social services (basic need), more than the economic ones, in accordance with the beneficiaries priorities.

As shown in chapter four Plan Sudan conducted some income generating activities in the area of study on limited scale.

5.2.2.1 Types of projects offered by Plan

As shown in Table (5.9), 63.6% of the respondents, who were offered projects by Plan, reported that their projects were concerned with agricultural activities (e.g. seeds, nutrients, extension services. etc.). However, about 36.4% stated that their projects were directed towards the establishment of training centers in the targeted areas for

developing the beneficiaries skills through intensified training and provision of rural industries, hand craft and other activities needed by the target group.

Table 5.9

Frequency Distribution of Productive Project by type

Type of project	F	%
Agricultural	14	63.6
Non- agricultural	8	36.4
Total	22	100.0

Source: Field Survey (2003).

◆ **Agricultural activities**

Information generating from the field work revealed that the main agricultural support is distribution as agricultural packages consist of improved seeds, pesticides, fertilizers and extension services.

This argument was confirmed by one of the agricultural administrators in the area who mentioned that:

“Plan offered some packages to some farmers associated by training courses. In addition to that the Organization rehabilitated El Arake Agricultural Scheme providing maintenance of machinery, provision of fuel, extension package and others”.

◆ **Other projects**

According to Plan philosophy, which focuses on child and mothers development. The Organization provided considerable efforts to rehabilitate older projects in the areas. The rehabilitation included training centers for developing the beneficiaries’ skills through intensified courses in rural industries, handcraft, tailoring, sewing and other activities needed by the targeted group.

Most of the interviewed women represented that there only small financial benefit in addition to time saving and acquiring management skills.

5.2.2.2 Income Effects

Table (5.10) shows that 60% of the registered stated that the project did not cause changes in increasing their income. On the other hand, 40% of them reported that they gained little increase in income that enable them to meet some of their needs. This case of low income is true since income generating activities are not the priority of the Organization. As result, almost all the registered and non-registered members demanded for projects that support income generating activities.

Table 5.10

Distribution of Income Situation Projects by Perceived Benefits

Perceived benefits	F	%
Not benefit	13	60
benefit	9	40
Total	22	100.0

Source: Field Survey (2003).

5.3 Sustainability of Plan Activity

No doubt the measure of ultimate success of any development programmes and/or activities is its sustainability. However, the concept of sustainable rural development is that rural people should alter and improve their lives in accordance with the criteria which take account to the needs of them and protect the natural resources base for the future generation. Moreover, sustainable rural development can not be achieved without participation of local community and the intended beneficiaries in the decision making process. Therefore, participation is held to be concept e of the sustainability.

As mentioned before, Plan programmes are based on the community participation through the organization of local institutions

(village committee, cooperative societies and popular committees), which take full responsibility of planning, implementing and monitoring the development activities to attain sustainable development.

With regard to the Plan participatory, development approach, it is clear from the group discussion with some of the members of villages committee that the selection of the village committee member was a proper one through a democratic process. Moreover, these committees were involved in all process of development and programmes after provision of relevant training to enable them to leader the development process toward sustainable manner.

These arguments confirmed by Sheikh Osman (tradition leaders) state that:

“Plan conducted proper works associated with full participation”

Also ‘Sheikh’ Abdu Ellagi states that:

“In addition to its contribution on the social services, Plan enhanced awareness and full participation”.

Also some respondent expressed their positive view about the activities which were conducted with participants of Plan.

In this context, one of the village development committee commented that:

“The current status of the on-going projects is progress well. If the pursue the same rate it will be sustainable”.

The chairman of Village Development Committee, also, commented that:

“Although the implemented projects and activities are going on well, however, there is need for revolving fund to allow

the communities implement other projects and maintain the existing ones”

Chapter Six

CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This study aimed to investigate the contribution of Plan –Sudan in sustainable rural development in Ed Duwiem Governorate, White Nile State.

The Ed Duwiem programme Unit was established in 1994 to improve the livelihood condition of rural families in targeted areas. It adopted participatory and integrated rural development approaches, with community partnership and the government to improve the life style in the study area.

It improved socio-economic services including health care, support the pre-education, basic and adult education, provided drinking water services and environmental conservation.

The methods of data collection were both primary and secondary. The primary method included questionnaire and formal interviews. The secondary data were collected from the organization documents, theses, official reports and relevant sources.

Multi-stage random sampling procedure were used to select 104 respondents (52 registered and 52 non-registered) from 8 villages.

The main findings drawn from the study were:

1. The study showed that Plan- Sudan focused on children and their families with respect to their basic needs including school construction, maintenance, rehabilitation and provision of school supplies and establishment of health centers.

2. Plan-Sudan has succeeded to attain a considerable social impact which reflected in improved drinking water, health services, environmental sanitation and educational services. In addition, there were special services for registered families such as latrines, improved stove, mosquito net, relief cost and others.
3. The Organization adopted the participatory approach, which enabled the beneficiaries to participate on the whole process of rural development that lead to its sustainability.
4. In case of institutions building, Plan-Sudan played an important role in social mobilization through participation in communal work.
5. The implementation of the development programmes among communities were implemented who participate through village development committees, extension committees and other relevant committees in the society.
6. Plan Sudan helped implement a good training programmes building capacity for the beneficiaries in many aspects, such as vocational training, sanitation, environmental management, project management, health services and others. But there were many issues that need more training courses as stated by the trainees.
7. Plan-Sudan seeks to increase the beneficiaries' income through introduction of income generating activities such as agricultural services (extension, credit and improved seeds), and financing other projects such as handicraft and animal production. But in spite of that it attained low economic impact.
8. The major problems facing the area were poor education, poor health and lack of hygienic water.

6.2 Recommendations

1. The Organizations' activities and its support for the developmental projects must be in sustainable manner.
2. Encouragement of the establishment of the grassroots organization so as to take the responsibility of development in the area and to provide training that would enable local citizens to sustain development activities after Plan ends its programme.
3. Facilitation of the establishment of multi-purpose cooperative societies (i.e. in agriculture, industry and others fields), and the provision of the training in these activities, with participation of rural people.
4. Establishment of revolving fund in the rural area under supervision of the village development committees
5. Expansion on training of the local people and provision of relevant facilities and services.
6. Improvement of educational facilities through the provision of more school supplies, teachers, training and other support programmes.
7. Increasing health awareness, construction of more hospitals and reducing medical relief costs through health insurance services for beneficiaries.
8. Expansion in productive development projects as income generating activities with benefits from the agricultural and animal cooperative advantages through introduction of agro-base and small-scale animal base industry.

9. Strengthening of community awareness in all fields of development and particularly about the role of Plan-Sudan.
10. Construction and maintenance of roads, and support for means of transportation so as to improve the marketing system and encourage the development process.

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Appendix: Household Questionnaire