
Effect of Civil War on Livelihood of Three Villages/ Blue Nile State, Sudan

Niveen Salah Eldin Ibrahim Elmagboul

School of Rural Extension, Education and Development, Ahfad University for Women, Omdurman – Sudan

ABSTRACT

This study investigated the effects of the civil war on livelihood of three villages in the Blue Nile state, Sudan. A sample of 240 households was selected from three villages by the use of a 'purposive random sample' method. The statistical package for Social Sciences (SPSS) was used to analyze the quantitative data and the result was presented in the forms of tables and figures. The results indicated that most of households in the three villages practiced subsistence traditional type of livelihood which was worsened by the war. Therefore, the source of income for households in the study area was vulnerable and negatively affected by the war, resulting in poverty for those households. Social services within the villages were affected by the war. The study concludes that limitation and vulnerability of livelihood sources, high illiteracy, low economic situation and lack of economic opportunities have trapped the villages in a cycle of deprivation and poverty. It is recommended that more interventions from the government and different NGOs should be created to release the people of villages from the trap of the deprivation and poverty through improving their livelihood systems.

Keywords: Livelihood, civil war, vulnerability, livelihood assets, social services, poverty, infrastructure, Blue Nile State

INTRODUCTION

Blue Nile state is characterized by ethnic and cultural heterogeneity as a result of its diverse indigenous ethnic groups and influx of migrants from all parts of the country. This heterogeneity has important implications for relations between the ethnic groups and for the way that resources are shared and managed. According to [1] over forty different ethnic groups inhabit the Blue Nile state. These ethnic groups can be divided into three main categories, the indigenous population, the long term non-indigenous population and the new-comers [1]. Of this, there is an estimated 74.3 percent who are in rural areas while the rest are residents of urban areas such as Damazin, Roseries, Altadamon, Kurmuk, Gissan and Baw. On average, there are seven members in the household. The male to female ratio is 1:1, while the annual population growth rate is estimated at 3.01 percent between 1998 and 2003 [2].

Livelihood in the Blue Nile state is characterized by diversity. Its economic activity is based upon agriculture and livestock and increasing mineral exploitation. Furthermore, the state contains the Rosaries Dam which is the main source of Sudan's hydroelectric power generation. Livelihood in the Blue Nile State has been largely affected by different factors, including the civil war.

The Blue Nile State has been heavily affected by civil war since 1987. The causes of the civil war include limited natural resources, limited farming land and lack of development. Since 1987, it is estimated that between 115,000 and 165,000 people have left their homes, and many now live in and around the neighboring towns of Damazin and Rosaries, 550 kilometers south of the capital city of Khartoum. Another 50,000 people sought refuge in Ethiopia. The impact of the civil war is evident in the deterioration of infrastructure and services, lack of government resources, and consequent instability and insecurity. Over two decades of civil war in the Blue Nile State has resulted in drastic changes in quality of life, modes of livelihood. So this study was set out to investigate the effect of

**Address for correspondence*

niveenelmagboul@gmail.com

civil war on systems of livelihoods in rural settlements in Blue Nile State with special emphasis to three villages: *Alamara Alhomora, Alazaza and Abu Gumai,*

SPECIFIC OBJECTIVES

To investigate the effects of civil war on systems of livelihood, in terms of its impact on:

sources of livelihood, land use, land ownership and mode of production, income and expenditure level, livestock production, social services, infrastructure in the study area and social services.

METHODOLOGY OF THE STUDY

Two methods were used for data collection: descriptive cross sectional and quantitative means. The study was conducted in three selected villages in Blue Nile State. One in Damazin locality (the village of Alamara Alhomora), one in AlRosires locality (Alazaza village) and one in Gissan Locality (the village of AbuGumai). Purposive samples of the household members were selected from each village. To accomplish the objectives of the study both secondary and primary data were collected and used. Secondary data was obtained by the consultation of published and unpublished materials, web published media (internet), reports and other relevant sources. Primary data was collected through two types of individual interviews, one with key informants and the other with the household representatives. The two individual interviews were designed to meet the objectives of the study. Structured interviews were conducted with the key informants (village sheikh/chief, community leaders, teachers, health cadre, etc.) in the selected villages with the objective of collecting detailed information about each village. The study used Statistical Package for Social Sciences (SPSS) to analyze the quantitative type of data and the results are presented in different statistical forms.

RESULTS AND DISCUSSION

Sources of Livelihood

According to [3], the agricultural sector in Sudan has generally been the main source of livelihood in the country. Agricultural products have traditionally accounted for around 95 percent of Sudan's export (GDP).

From Table (1), it was found that 73.7 % were practicing agriculture (farming and animal husbandry) as the main form of the livelihood in the study area. The other forms of livelihood practiced in the area were fishing, and working in small businesses which represented about 7.5 and 18.8 percent respectively. This result is in accordance with study findings by [4], and [1] which state that agriculture (farming and livestock) is the main source of income and livelihood for most rural households in Blue Nile State, with 74.3% of the state population living in rural areas. The results indicated that most of households in the three villages practiced subsistence traditional type of livelihood which was worsened by the war. Because most of the respondents lost their animals they were forced to reduce their agriculture land due. However due to the danger of mines in distant areas, they cultivate nearby lands which yield low productivity due to a decrease in land fertility as a result of continuous cultivation of the same land. The types of small businesses that some households depended on (working as a labor in building or polishing houses, selling and buying some items ?, etc.) indicate low opportunities available for people to improve their income, as a result of the war.

All households failed to estimate their income, although most of them described their income as insufficient. This may be due to the fact that what they earned is too small and hence will immediately be spent to satisfy their daily needs.

Table1. *Distribution of the head of the household according to their Forms of Livelihoods*

	Alazaza		Alamara Alhumara		Abu Gumai		Total	
	F	%	F	%	F	%	F	%
Agriculture	40	44.4	73	81.1	28	46.7	141	58.7
Animal husbandry	32	35.6	0	0	4	6.7	36	15
Small Business	18	20	17	18.9	10	16.6	45	18.8
Fishing	0	0	0	0	18	30	18	7.5
Total	90	100	90	100	60	100	240	100

Source: *Field Survey (2009)*

Land Use, Land Ownership and Mode of Production

The households covered by the study own an aggregate size of agricultural land of about 581 Feddan.

Table (2) below showed that 82.8 % of the households had farms with sizes of 2 to 5 Feddans, and 10 % had farms of one Feddan or less than one Feddan, while only about 7.2% of households owned farms which were bigger than 5 Feddans.

Table2. Household distribution according to Farm Size

	Alazaza		Alamara Alhumara		Abu Gumai		Total	
	Freq.	%	Freq.	%	Freq.	%	F	%
0- 1 Feddan	6	11.5	5	5.6	7	18.4	18	10
2-3 Feddans	26	50	48	53.3	17	44.7	91	50.6
4-5 Feddans	17	32.7	33	36.7	8	21.1	58	32.2
More than 5 Feddans	3	5.8	4	4.4	6	15.8	13	7.2
Total	52	100	90	100	38	100	180	100

Source: Field Survey (2009)

In the study area, the households are involved in two types of farming systems. The first is rain fed farming, where the majority of the households have farms of about 2 to 5 Feddans. The second type is *Jubraka* (family farm) which consists of household farms sized between 1/2 to 2 Feddans, usually inside the family house or attached to it.

Table (3) below representing the Mode of Production. About 44.4 percent of the household cultivated sorghum and sesame, 30.6 percent cultivated sorghum, sesame, groundnut and peas, while the remaining cultivated either sorghum (13.3 percent) or corn, sesame and vegetables (11.7 percent). All types of crops cultivated by farmers in the three villages were considered as subsistence crops which confirmed what is mentioned earlier that they practiced cultivation of different crops, mostly for subsistence. This finding supported by the study finding of [4], [5], and [1] which indicated that the average household farm size is estimated to be less than 5 feddans. Sorghum, sesame and groundnuts are the main crops cultivated in dry land farms while vegetables, maize and fruit trees are the main crops in orchards and irrigated plots. Traditional rain fed farming supports 90% of rural communities. In traditional farming, small plots (1-5 feddans) are cultivated for subsistence production by a farming family.

Table3. Household distribution according to the Mode of production

	Alazaza		Alamara Alhumara		Abu Gumai		Total	
	Freq.	%	Freq.	%	Freq.	%	F	%
Sorghum + Sesame	30	57.7	50	55.6	0	0	80	44.4
Sorghum + Sesame + beans	6	11.5	20	22.2	17	44.7	43	23.9
Sorghum + Sesame + Groundnuts	12	23.1	0	0	0	0	12	6.7
Sorghum	4	7.7	20	22.2	0	0	24	13.3
Corn + sesame + vegetables	0	0	0	0	21	55.3	21	11.7
Total	52	100	90	100	38	100	180	100

Source: Field Survey (2009)

Traditionally, a round each village is a land known locally as 'harm lands'. which is reserved to be used as pasture. Usually income is generated from this type of land when households raise cattle, sheep, goats, and other animals. The family gets its milk, meat, semin? (cooking butter), hides, and skins from the livestock they have raised.

Table (4) presented land ownership in the study area; it was found that about 40 % of the households own agricultural land while the majority of them 59.4 % rent the land they use. A few own part of the land and rent part of the land that they use. In general, the households are the ones directly using or operating on their land and only a few engage in sharecropping. There has been no change in land ownership in the study area due to the civil war. The only change has been the decrease in the size of agricultural land as a result of expansion of mines exploration activities in these lands

Table4. Distribution of Household according to Land Ownership

	Alazaza		Alamara Alhumara		Abu Gumai		Total	
	F	%	F	%	F	%	F	%
Owned	14	26.9	20	22.2	38	100	72	40
Rent	37	71.2	70	77.8	0	0	107	59.4
Owned +Rent	1	1.9	0	0	0	0	1	0.6
Total	52	100	90	100	38	100	180	100

Source: Field Survey (2009)

Livestock Production

The types of livestock owned by the respondents in the study area are mainly cattle, small ruminants (sheep and goats) and other types of livestock such as chickens and donkeys. These types of animals play an important role in the household economies in the study area, as mentioned earlier. The cattle are the most common animals in Alazaza Village (40.5 %) while goats and sheep are more common in Alamara Alhumara and AbuGumai (65.8% and 45.6 % respectively) see Figure (1) below. Besides supplying the households with milk, butter and meat, the selling of livestock has been the source of extra income for most of the households to overcome the income shortages.

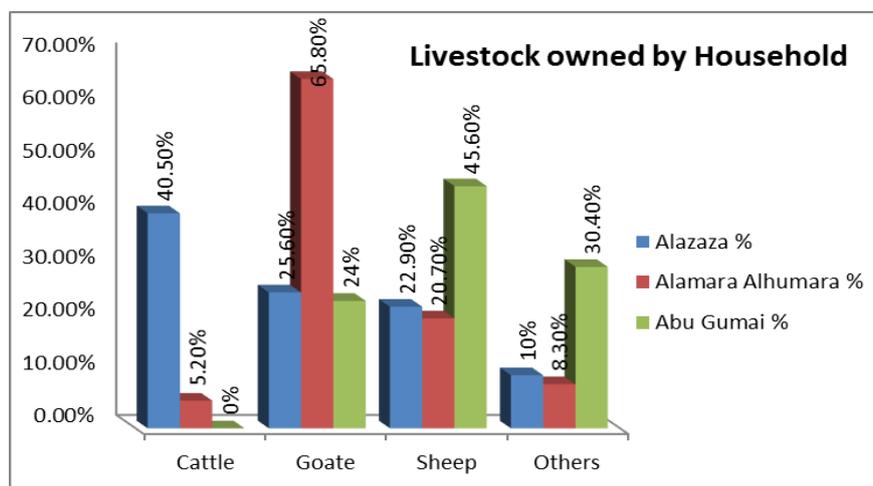


Figure1. Distribution of household according livestock owned

Source: Field Survey (2009)

INCOME AND EXPENDITURE LEVEL

The income level of the households in the study area is low, as indicated by majority of respondent in the study. The majority of them failed to give an estimated monthly/yearly income, because most of them spent the income immediately.

The perceived low income of the households in the study area is a clear indicator of the negative effect of the war on livelihood.

Household incomes in the study area are mainly from crop production and livestock production/animal husbandry. Besides farming, study participants were also engaged in selling goods, handicraft making and other economic activities as means of generating additional income. See Figure (2).

The majority of the households mentioned that the income is mainly spent on food items, agriculture related items and school fees.

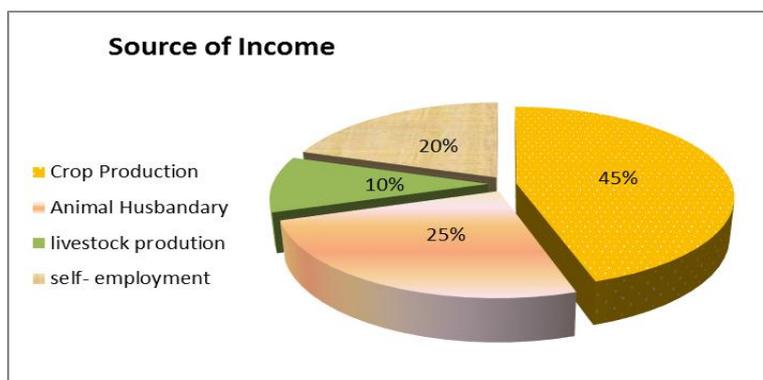


Figure2. Distribution of household according to source of income

Source: Field Survey (2009)

SOCIAL SERVICES

Infrastructure in the Study Area

Different infrastructure exists in the three villages of the study area. For example, Mosques are available in each village.

Regarding educational institutions, Khalwa (religious education), primary school, secondary school and literacy classes are available in all the villages under study with the exception of Alazaza village which has no secondary school.

With reference to health, there are hospitals in Alamara Alhumara and AbuGumai, while in Alazaza there is small health center.

In terms of transport, all the villages have different types of transports (mini bus, taxi, rickshaw, etc...). After the war, the intervention of national and international organizations for the development of the areas affected by war has had a positive impact on the availability of social services and the improvement of infrastructure.

Health

When asking the households about their general health, the majority of them said that their health was very good, though many of them said they suffered from a number of illnesses in the last year. Malaria infection (69.6%) and asthma/chest inflammation (13.3%) were identified as the illnesses suffered by the majority of the households in 2008. Chronic eye problems were also mentioned by 8.7% households (see Table5).

Table5. Distribution of the Household according to diseases in last year (2008)

DISEASE	No	%
Malaria	167	69.6
Asthma/Chest Inflammation	32	13.3
Chronic Eye Problem	21	8.7
Kidney Problem	5	2.1
Heart Problem	5	2.1
High Blood Pressure / Hypertension	6	2.5
Diabetes	4	1.7
Total	240	100

Source: Field Survey (2009)

Most of the households which had a member who had suffered from malaria infection have had 2-3 malaria attacks in the last year. They were also treated for their illness; the majority of them went to a health clinic/centre for treatment. This is a good indicator for the positive impact of development intervention after the civil war.

Water and Sanitation Services

The Blue Nile state is one of the poorest States in terms of water and sanitation facilities. According to

[5], 59% of people in Blue Nile do not have access to improved drinking water (mainly in non-urban areas and in the western parts of the State), and 89% of people do not have adequate sanitation facilities. Water quality is problematic even in towns like Damazin and Roseires, where the Water Supply Corporation pumps water directly from the river without any purification or chemical treatment.

In the study area the majority of the households (85.4%) rely mainly on the Blue Nile as the main source of water for domestic use and other purposes, while the rest use hand pumps, buy water or obtain it from other sources (6.4%, 4.2% and 4.2% respectively) (see Figure 3)

The sanitation facility used by majority of the households in the study area is a simple type of pit latrine that is commonly shared by households located in a compound. In large village centres, there is at least one public toilet which is used only by men because women in general do not go out of their houses or homestead compounds for sanitation needs.

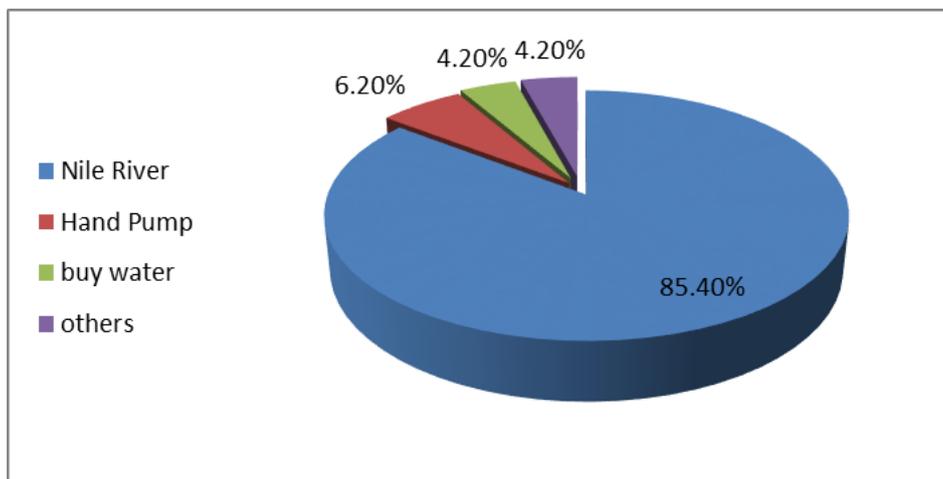


Figure3. Distribution of Households According to Water Source

Source: Field Survey (2009)

CONCLUSION

This study showed that, in affected areas, the civil war has had a crucial effect on people’s socio-economic situations. Education in the study area has been seriously disrupted by the civil war, as a whole generation of children has been deprived of an education. Hence, the illiteracy among the productive population of the villages was very high. Although schools had been re-established, they faced a shortage of facilities and qualified teachers.

The economic situation of the villages strongly deteriorated due to the effects of the civil war. Moreover, as the common, traditional, subsistence sources of income declined as result of war, and new sources for generating income were limited, hence most of the young people left the area in search of other opportunities to generate income.

War, displacement and limited livelihood opportunities, coupled with a lack of basic services (particularly water, health and infrastructure) have led to high levels of poverty among the people in the study.

Finally it can be concluded that limited livelihood sources and the vulnerability of these livelihood sources, high illiteracy levels, low economic situation and lack of opportunities have all combined to lock the villages in a cycle of poverty.

To release the people of villages from the trap of the deprivation and poverty the study recommended that, different intervention from government, NGOs and community members should be made to improve their livelihood systems.

REFERENCES

- [1] Ahmed, A. G. M. (2005). *The Blue Nile State/ Region; Context and Situation. A report represented to UNDP*. Khartoum.
- [2] RHCS, U. O. (2004). *Sudan Transition and Recovery database, Blue Nile State*. Version 2, 28 July 2004.
- [3] Sudan development program. (2006). *Agriculture*. Retrieved March 17, 2006, from <http://www.sudandevelopmentprogram.org/sp/about.htm>.
- [4] DIU. (2012). *Resettlement Plan Report*. Sudan: Dams Implementation Unit.
- [5] World Bank. (2006). *Social and Conflict Analysis Study Blue Nile State; Damazin and Rosaries Localities*. CDD Project.
- [6] SHHS (2006). Sudan Household Survey.

AUTHOR'S BIOGRAPHY



Niveen Salah Eldin Ibrahim Elmagboul, is Associate Professor, Holding A PhD in Sustainable Rural Development, Ahfad University For Women - Sudan teaching several courses related to development such as communication and media production, rural extension, diffusion of innovation, project planning identification and analysis, sociology and environmental studies and sustainable development as cross cutting issues for all courses. She has more than 10 years' experience in research; her main areas of research are poverty, food security, sustainability of rural development projects, environmental issues and problems, reproductive health and gender equality. Most of her research targeted vulnerable groups in development such as IDPs, small farmers and female headed households

Ms. Elmagboul has a good experience in livelihood analysis in different part of Sudan; she has a regional experience in conducting social development sector in Sudan for IGAD region

Ms. Elmagboul has acted as consultant and technical advisor for different agencies such as WFP, IGAD, GIZ, DIG, CDF/WB, UNICEF and AAAID.