

SUDAN ECONOMY RESEARCH GROUP
DISCUSSION PAPERS

**Peace Dividend and the Millennium
Development Goals in Southern Sudan.**

**By: Benaiah Yongo Bure, Kettering University,
Flint Michigan, USA.**

Universität Bremen
Sudanforschungsgruppe Bremen
Diskussionsbeiträge

Institute for World Economics and International Management (IWIM)

D-28334 Bremen, Germany

P. O. Box 33 04 40 (Postfach 33 04 40)

Telephone: + 49 - 421 - 218 - 3074/ - 2138

Fax: + 49 - 421 - 218 - 4550

Email: iwim@uni-bremen.de

<http://www.iwim.uni-bremen.de>

Sudan Economy Research Group

Discussion Paper No. 36

Editor:

Karl Wohlmuth

Professor of Economics,

University of Bremen

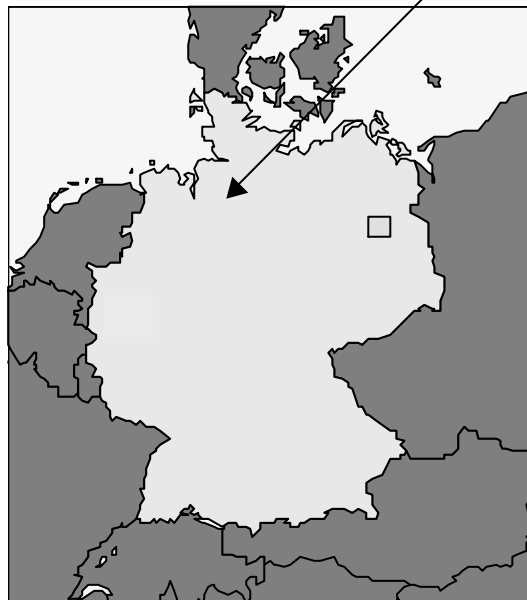
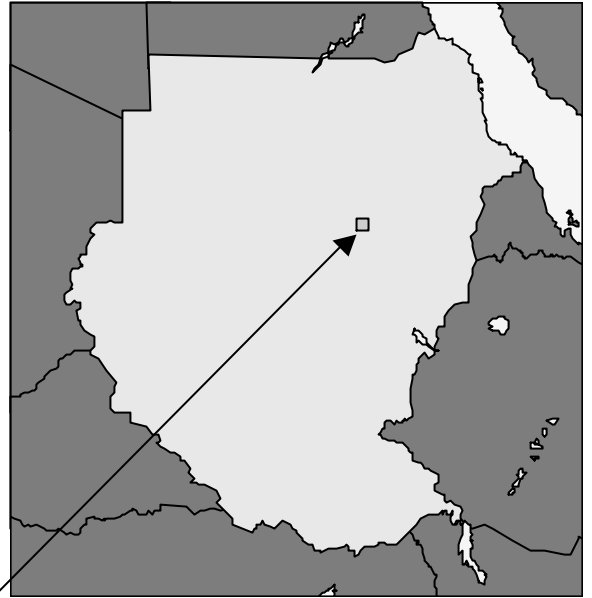
Email: wohlmuth@uni-bremen.de

**Peace Dividend and the Millennium
Development Goals in Southern Sudan.**

**By: Benaiah Yongo Bure, Kettering University,
Flint Michigan, USA.**

Bremen, August 2005.

Republic Of Sudan



Sudan Economy Research Group

University of Bremen

Germany

**Peace Dividend and the Millennium
Development Goals in Southern Sudan.**

Benaiah Yongo-Bure

Table of Contents

	Page
Acronyms and Abbreviations	ii
Abstract	iii
1. Introduction	1
2. The Economy on the Eve of Peace	1
3. Resource Potential	5
3.1 Agricultural Resources	8
3.2 Mineral Potential	9
3.3 Energy Resource	10
4. A Vision for Development Prospects	11
5. The Millennium Development Goals	11
6. Analyses on Poverty Reduction	14
7. Suggestions for a Growth Strategy and Development Policies	16
7.1 Agriculture	17
7.2 Agro-industries and Manufacturing	19
7.3 Infrastructure	21
7.4 Rural Access Roads	23
7.5 Social Services	24
7.6 Financial Services	27
8. Macroeconomic Policy Framework	27
9. Financing the Program	29
9.1 Fiscal Decentralisation	32
10 Scenarios for Public Service and Economic Management	33
11 Concluding Remarks	35
References	37

List of Tables

Table 1: Phase I JAM Costs for Southern Sudan, (\$ million)	16
Table 2: Distribution and Length (Km) of Main Roads in Southern Sudan	21

Appendix

Map 1: Natural Regions of Sudan	39
Map 2 Oil Concessions in Central and Southern Sudan	40

Acronyms and Abbreviations

AIDS	Acquired Immune Deficiency Syndrome
CANS	Civil Authority of New Sudan
CDC	Country Development Committee
CNRMU	Committee on Natural Resources Management and Utilization
CPA	Comprehensive Peace Agreement
FACE	Friends of African Children Education
GDP	Gross Domestic Product
GOS	Government of Sudan
GOSS	Government of Southern Sudan
HIV	Human Immunodeficiency Virus
IDEAS	Institute of Development, Environment, and Agricultural Studies
IDP	Internally Displaced Person
IGAD	Inter-Governmental Authority on Development
IMF	International Monetary Fund
JAM	Joint Assessment Mission
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MDTF	Multi-Donor Trust Fund
MFEP	Ministry of Finance and Economic Planning
NCA	Norwegian Church Aid
NPA	Norwegian People's AID
NGO	Non Governmental Organization
NLC	National Liberation Council
SCC	Sudan Council of Churches
SDRs	Special Drawing Rights
SPLA	Sudan People's Liberation Army
SPLM	Sudan People's Liberation Movement
SPS	Secretariat on Peace in Sudan
SSRDF	Southern Sudan Reconstruction and Development Fund
UNICEF	United Nations International Children's Emergency Fund
USAID	United States International Development Agency

Abstract

Southern Sudan should not expect significant amount of peace dividend soon after the attainment of peace given the lack of pre-war development as well as the duration and impact of the war. Little can be expected in the short-run, but much can be attained within the interim period and beyond. How much can be realized will depend on focusing on rural development and an effectively decentralized system of government. Prioritization in resource allocation will generate more resources and increase the capacity to develop from internal resources. To initiate a process of sustainable development, the first things must be done first. These include laying the basic infrastructure in administration, transport, education and training, health, energy, and incentives to the peasant farmer. The paper outlines some elements of a strategy for laying a sound base for sustained development that can lead to faster realization of the Millennium Development Goals (MDGs) in Southern Sudan. Overall, Southern Sudanese policy makers should not be too much concerned with meeting certain international dead-lines given their initial conditions. What is important for the South is to initiate positive changes and being able to continuously improve on these changes. Concern should not be with catching up but with making continuous improvements. Good governance, efficiency, inclusiveness, transparency, accountability, and being seen to be doing their best, under the circumstances, will mobilize popular support and effort, and sustained peace and security. The sustainability of peace and security will determine the long-term marked reduction in poverty. Of course, this assumes all parties to the peace agreement are committed to the achievement of genuine and durable peace regardless of the outcome of the referendum on Southern self-determination.

1. Introduction

Southern Sudan consists of the original three out of nine Sudanese provinces of Bahr el Ghazal, Equatoria, and Upper Nile. The three provinces have been divided into ten states. These are Bahr el Ghazal (Lakes, Northern Bahr el Ghazal, Warap, and Western Bahr el Ghazal); Equatoria (Central, Eastern, and Western Equatoria); and Upper Nile (Jonglei, Upper Nile, and Western Upper Nile). Areas outside Southern Sudan that fought the recent war together with Southern Sudan, under the banner on New Sudan, include Abyei, Southern Blue Nile, and Southern Kordofan. The peace provisions for the three areas are different from those on Southern Sudan. This paper focuses on Southern Sudan only.

Southern Sudan covers an area of 648,000 km². There has been no accurate population census for Sudan, leave alone for Southern Sudan that has been under perpetual war situation for about three decades. The latest figures on Sudan's population, for 2001, put the population of Southern Sudan at 5.1 million out of a total Sudanese population of 31.9 million (World Bank II, 2003:1). Yet the Sudanese census of 1983 recorded the population of Southern Sudan at 5.3 million. With an under-coverage of 5 percent, the 1983 figure was raised to about 5.5 million (Yongo-Bure, 1989:1-2). If allowance is made for the emigration to Northern Sudan and abroad during the war, the 2001 population figure for Southern Sudan would be about 10 million.¹ In any case, the approximate situation will not be clear until the census, scheduled for the early years of peace, is conducted.

2. The Economy on the Eve of Peace

Southern Sudan is one of the poorest territories in the world although it is potentially rich in natural resources. Its development was neglected during the colonial period. On the eve of independence in 1956, the first war broke out. It ended in 1972 with the Addis Ababa Agreement. Failure of socio-economic development in the post-first war period contributed to the outbreak of the second war in 1983. What ever little development that took place in the inter-war period was destroyed during the second war. Consequently, development efforts will be starting from almost zero level. Whatever transportation infrastructure that existed has been destroyed, fallen into disrepair, or being mined by the combatants. There are only few rudimentary schools with neither school supplies nor trained teachers. There are no health services except for few emergency services provided by international humanitarian agencies.

¹ Figures on Southern Sudanese migrants to Northern Sudan during the war are put at about 4.5 million, while those of refugees in neighboring countries are over 0.5 million. Substantial numbers of Southern Sudanese have also taken refugee beyond the neighboring countries.

Hence, two generations have grown up without access to education and medical services. The supply of trained local human resources is very thin. Therefore, the staffing of the various structures that will spearhead the administration and development of the territory in the post-war period is a daunting task.

During the war, the major towns of Juba, Malakal, and Wau plus a few other administrative towns were controlled by the Government of Sudan (GOS), while the countryside and a number of other administrative towns were run by the Sudan People's Liberation Movement (SPLM). The Government towns were basically garrison towns supplied from Khartoum. Civilians even dared not to go outside the perimeters of these towns for cultivation because of insecurity and fear of land mines. Even in oil producing states such as Western Upper Nile (Unity), the population was being cleared from the land to make room for further oil exploration (Ryle and Gagnon). Moreover, the oil was never spent on improving the living conditions of the indigenous people. However, in the peace era, the assets created in the oil-producing states should be able to be used to provide the basic facilities for the structures for the state governments. Moreover, the two percent share of the states from oil revenues generated in the state, provided for in the peace agreement, should be able to provide the oil-producing states with the necessary finances for undertaking their socio-economic development.

Some of the areas that have been under SPLM administration have established some economic base for development, but many have not, especially those in contested areas with government forces, militia, and the Lord Resistance Army, a Ugandan rebel group backed by the Sudan Government, and operating from Eastern Equatoria. The areas under SPLA that have reached almost a post-war stage of development included Western Equatoria, Lakes, and the southern parts of the states of Central Equatoria, Jonglei, and Warap. Northern Bahr el Ghazal, Upper Nile, and Western Upper Nile have been the areas most devastated by militia activities.

Socio-economic development that has taken place in Western Equatoria and other relatively peaceful parts of Southern Sudan have largely been financed by the USAID and run either directly by the USAID or indirectly by NGOs contracted by the USAID. While most international agencies operating in Southern Sudan, for the entire war period, concentrated on short-term humanitarian activities, USAID initiated some development activities from the mid-1990s. USAID was later on followed by UNICEF.

Generally, development in SPLM administered areas started after the SPLM Convention of 1994. From 1983 to 1994 (Phase I), SPLM emphasis was on military mobilization and

gaining of territory (Deng).² There was no major effort put on establishing a civil authority and undertaking socio-economic development. By 1986, when the SPLA had gained sizable territory, some civil-military administration was set up with the primary objective of maintaining law and order and mobilizing resources for the war effort. A High Command composed of military officers was in charge of administering the territory under the SPLM. On the economic side, an economic commission was established to initiate public investment especially in natural resources such as gold, livestock, and fisheries. A few health facilities were set up. In 1990, the SPLM created the Friends of African Children Education (FACE) Foundation for education of minors under SPLM care.

With the split in the SPLA/M in August 1991, the rest of phase I was spent on internal conflict. Khartoum took advantage of the split in the SPLA/M. Consequently, the movement lost much of its territory to the Khartoum government. The SPLA/M re-bounced in 1994 and re-organized itself in a National Convention of New Sudan. Hence, began phase II (1994-1999) of the war as far as focusing on establishing governmental structures and socio-economic development are concerned.

The Convention established three branches of government in the New Sudan: Legislative (NLC), executive and judiciary. These branches of government were replicated at the lower levels of a decentralized administration. The decentralized system consisted of five tiers: central, regional, county, payam, and boma. While the numbers of the three lowest layers of (local) government were to be gradually determined, the five regions of the New Sudan were named as Bahr el Ghazal, Ekuatoria, Southern Blue Nile, Southern Kordofan, and Upper Nile. Abyei was automatically returned to be part of Bahr el Ghazal.³

A civilian authority, the CANS, separate from the SPLA was created in 1996. SPLM-appointed administrators took up posts at the national, regional, and county levels. Most staff have been military. Over time, some have been trained in administration. They worked without salary and had no services to provide except helping to mobilize resources for the war effort, keeping local security, resolving disputes and helping in the distribution of relief resources. From 1999, the SPLM started setting up elected CDCs to promote development activities in their counties.

² Deng divides the war period into three phases as discussed in this paper. However, some may classify 1991-1994 as a separate phase following the split in the SPLA/M and the subsequent factional fighting, giving no chance for institutional building and undertaking of socio-economic development. In fact, 1991-1994 was a setback period for the SPLA/M and the South.

³ The British transferred the administration of Abyei from the South to the North in 1905. While the area will be under joint North-South administration during the six-year Interim Period, it will decide in a referendum in 2011 whether to remain as part of the North or to return to the South.

This phase also witnessed the encouragement of the civil society to organize itself and take a leading role in the management of the New Sudan. Consequently, a number of indigenous NGOs and professional associations emerged such as New Sudan Women Association, New Sudan Youth Association, New Sudan Medical Care, New Sudan Law Society, Economic Society of New Sudan, and many others at regional and county levels.

The private sector also began to organize themselves into farmers and traders associations especially in Yei (Central Equatoria), Meridi, Mundri, Tombura, and Yambio (Western Equatoria), Tonj (Warap), Rumbek (Lakes), and Panyagor (Jonglei). With assistance from the USAID, the economies of these counties began to recover; and were producing surplus for both the local and export markets. Growth was picking up fast especially in retail trade, restaurants, motels, drug stores, crafts, etc. Schools were being re-established; and these counties had almost reached the post-conflict environment except for random, high altitude bombing by the Khartoum government airforce.

A series of public policy conferences were held involving the government, civil society, and the private sector. One such important conference was the economic governance conference of 1999. Among the resolutions of the economic governance conferences were: removal of all roadblocks as these interfered with free flow of trade; harmonization and simplification of the tax system; establishment of IDEAS; introduction of a currency; and formulation of a blue print as a guide towards peace and development.

A new initiative was launched to revitalize the agricultural sector. A USAID five-year \$22.5 million Southern Sudan Agricultural Revitalization Project was to increase the capacity for agricultural production and marketing by: increasing access to agricultural skills and technology; increasing access to capital for agricultural enterprises; and increasing the capacity of commodity networks to facilitate expanded trade. It targeted agricultural producers all over the New Sudan, regardless of political affiliation (Guvele and D'Silva and www.usaid.gov). Special emphasis was placed on assisting communities and equitable participation of women in all project components. The project specifically focused on supporting agriculture and business skills training in food crops, agricultural technology, forestry, livestock, wildlife, and fisheries; establish a central information and data analysis collection and dissemination unit; provide capital for agricultural enterprises through a finance institution; and strengthen agricultural commodity networks.

Soon the project area reverted back to a cash economy. Surplus production was realized in Western Equatoria and southern Central Equatoria. Increased incomes led to increased volume of, and diversified, imports of salt, sugar, washing soap, textiles, wheat flour,

beverages, cereals, footwear, fuel and oil, building materials (iron sheets, cement, timber, nails). Exports of hides, coffee, oil seeds, honey, and palm oil, and timber increased. There was also an increase in livestock marketing from Tonj to Rumkek, Western and Central, and Uganda.

Recognizing the importance of cattle among the Dinka and Nuer, UNICEF moved from a pure food relief orientation to incorporate a community-based vaccination and animal health service project under the Pan African Rinderpest Control Initiative (Guvele and D'Silva). The project provided free vaccines, trained and equipped community animal health workers, and promoted improved livestock markets. Existing veterinary personnel were recruited and more local personnel were trained as the program expanded. UNICEF provided vaccines and equipment. Veterinary auxiliaries and stockmen supervised and managed the vaccination campaigns with minimum supervisory support from UNICEF. In some areas, UNICEF provided vehicles; otherwise vaccinators walked and were paid with food for their family. Success of the program in terms of reduction of rinderpest outbreaks encouraged pastoral communities to request inclusion of other diseases in the program.

In the third phase (2000-2005), the NLC was replaced with the Leadership Council of the SPLM, made up of 14 military commanders. The twenty ministries established in phase II were organized into commissions, with a number of commissions under each of the 14 commanders. Everything else remained the same except for the impact of the reorganization at the top on the whole system. The on-off-on off IGAD peace process began to bear fruit with the signing of the Machakos Protocol in July 2002.⁴ Finally, a peace agreement was signed in January 2005. However, the system established during the third phase will continue in the six-month Pre-Interim Period until the establishment of the Government of Southern Sudan (GOSS).

3. Resources Potential

Based on climate, vegetation, and soil type, Sudan can be divided into five zones: the desert, semi-desert, central rainlands, the flood plains, and the equatorial zones. The desert and semi-deserts are limited to Northern Sudan (Map 1: appendix). Southern Sudan lies in the equatorial and flood plains zones; and in a small part of the central rainlands.

⁴ The Machakos Protocol is the basis of all the other protocols constituting the Comprehensive Peace Agreement (CPA) of January 2005.

The central rainlands cover the whole central Sudan and Upper Nile. Northern Upper Nile receives a mean annual rainfall of 400 to 600 mm with heavy rains during four months of the year. The southern part of Upper Nile receives between 677 to 750 mm of rainfall per annum with a period of rainfall of 5 to 6 months (MFEP, 1977).

The flood plains cover Jonglei, Lakes, Northern Bahr el Ghazal, Warap, and parts of northern Eastern Equatoria (Howell et. al.). Rainfall ranges from 750 to 1,000 mm and extends over 6 to 7 months. Due to lack of slope; and heavy impermeable soils, the whole zone is subject to heavy water-logging, and flooding during the rainy season. However, these are potentially the most fertile soils in Sudan, if drainage can be improved. Highlands are formed of ridges on alluvial banks of rivers and watercourses. They act as refuge for humans and animals at the height of the rains when most of the plains are flooded.

Sudd (or swamps) extends for about 100 meters from the banks of the main river channels and some of the side channels. The vegetation is papyrus and its distribution depends largely on the depth and duration of flooding, and to some extent on the range of water levels. The rate of growth of papyrus is very rapid; and three crops a year may be harvested. The papyrus constitutes an important supply of raw material for a paper industry.

Above the swamps are lands locally known as “toiches”. They are seasonally flooded by spill water from the rivers. The toiches retain sufficient moisture during the dry season to support active growth. They are necessary for the raising of livestock since they provide grazing during the dry season when no drinking water remains on the intermediate lands, and no grass on the highlands.

Between the toiches and the highlands are intermediate lands, which are subject to severe flooding or at least to water-logging during the rains. They are almost waterless during the dry season. Any additional heavy rain on flooded soil will cause creeping floods, which become particularly serious if river spill has increased the amount of unabsorbed water.

The equatorial zone consists of four sub-zones: the ironstone plateau, central hills, green belt, and southeastern hills and mountains. The ironstone plateau covers Western Bahr el Ghazal and northern parts of Western Equatoria. Its mean rainfall is between 900 and 1,300 mm, distributed over 6 to 8 months. Fertility depends mainly on the depth of the soil, which varies considerably from area to area. Vegetation in this area consists mainly of broad-leaved woodland. Cattle and sheep are excluded from the ironstone plateau by the presence of tsetse fly. However, ample good grazing exists in the woodland for the wet season. Because of the good drainage, the ground is sufficiently dry to permit cattle access.

The central hills area lies immediately to the east of, and has similar characteristics to, the ironstone plateau. Woodland, which is both broadleaved and thorny, is not so dense, with the result that grass growth is denser. Deeper soils, usually red loams, are found in the valleys and local depressions. There are fertile alluvial soils in river flood plains. Cattle are raised, but tsetse fly excludes cattle from many sites. In villages, dried sorghum stalks provide supplemental animal feed.

The green belt is located in the area covering the extreme southern parts of Central and Western Equatoria and around some of the mountains in Eastern Equatoria. It records a mean annual rainfall of 1,350 to 1,600 mm. The rainy season covers a period of 8 to 9 months. Its soils are similar to those of the ironstone plateau, but deeper and more fertile; and agriculturally more important.

A wider range of crops is found in the green belt than elsewhere in Sudan. These include mangoes, paw paw, pineapples, yams, cocoyam, and upland rice. It is the only area in Sudan where tropical crops can be grown without irrigation. Experimental crops have been tried including oil palm, coffee, citrus fruits, and sugar cane.

The southeastern hills and mountains cover most of Eastern Equatoria. The area merges in the north with the flood plain, and in the east with the arid parts of Kenya. It is sub-divided into high altitude area, lower mountain slopes and hills, and the southeastern plain. In the high altitude area rainfall ranges from 1,100mm to 2,200 mm, with a rainy season of 7 to 9 months. The soil consists of deep loam and shallow skeletal variety. In the lower mountain slopes and hills rainfall ranges between 750 and 1,200 mm during a rainy season of 7 to 8 months. Robusta coffee grows wild in many parts of this area.

The south-eastern plains are undulating and arid and continue to the northern parts of Kenya. The mean annual rainfall is below 700 mm; and the vegetation consists of thorny scrub and areas of open grassland.

The Toposa lead a transhumant way of life with their livestock, as do the people of the flood plains. They own very large numbers of cattle, sheep, and goats. Wet season grazing is satisfactory. Water supplies are difficult and hand-dug wells are necessary during the dry season. There are large areas of good pastures, which cannot be used for lack of drinking water.

On the Boma Plateau, the villages and cultivations are in flat valleys or hanging valleys at about 1,300 meters. Arabica coffee grows wild in the forest. The rest of the area is sparsely inhabited. Rainfall in the southern part of the plateau declines going eastwards from 700 mm

to less than 400 mm when nearing Lake Turukana in Kenya. Northwards, it increases from 600 mm to 1,000 mm at Boma, and 1,200 mm on higher land.

3.1. Agricultural Resources

From the above discussion of the resources potential, it is clear that various crops can, and have been, grown in all the different ecological zones of Southern Sudan. Every zone is capable of producing more than its subsistence needs. In above average zones such as the green belt, farmers grow two crops per year. Supplemental irrigation can enhance crop production where rainfall is low and erratic. Given appropriate policies crop production and productivity can be greatly increased.

As for livestock, it is an integral part of the lives of about two-thirds of the population of Southern Sudan. The native breeds are well adapted to their various indigenous habitats. There are abundant natural pastures and fresh water. Animal dung has added to the fertility of the soil. However, improved veterinary services will boost the livestock industry. Recycling of the floodwater in the swamps, and the creation of dry season watering points can ease the work of the pastoralists, and stabilize their activities. Eradication of the tsetse fly will open up more land for livestock rearing.

Fish abounds in the rivers and wetlands of Southern Sudan. Fish is found in the Nile, sudd and swamps, shallow lakes, seasonal wetlands surrounding rivers, lakes, and permanent swamps.

Fish farming has also been introduced in Southern Sudan.

The natural forests in various ecological zones of Southern Sudan serve the population in various ways. They protect the environment, offer biodiversity, and are sources of energy and raw material for furniture and building. They modify the climate, reduce soil erosion, add humus to the soil, and reduce flood and flood effects. Most of the population depends on the forests for their supply of firewood and charcoal. Other important forest products to the Southern population include various types of medicine, gum, materials for crafts, and food in the form of vegetables, fruits, and roots.

Forest plantations enhance the natural ones. Both types of forests have led to the establishment of a saw-milling industry. This sector is going to be among the leadings ones in the reconstruction and development of the South. In addition to supplying inputs and products for the domestic market, it is a major sector that can supply large quantities of exports necessary for the importation of machinery, inputs, and supplies in the short-run.

The forests provide a variety of habitats with a high biodiversity of fauna and flora. Hence, the wildlife of the South is varied. This provides a good potential to the development of tourism. This fact is reinforced by the proximity of Southern Sudan to well developed tourist industry in East Africa. Five national parks and fifteen game reserves were reactivated and/or identified in the 1970s, but there was not much progress in their development (CNRMU:67-77).

3.2. Mineral Potential

Based on interpretation of satellite imagery and rapid field reconnaissance, it is estimated that about 300,000 km² of the South is underlain by igneous and metamorphic rocks; and 200,000 km² is covered by sediments which includes alluvium and swamp deposits (CNRMU: 94-110; Mefit S. p. A., & MFEP: 13-15) . Explorations for minerals in the 1970s confirmed existence of gold, iron, copper, uranium, chromium, zinc, tungsten, diamond, mica, magnetite, salt, manganese, gemstones, petroleum, and other metallic, industrial, and chemical minerals. Gold has been panned from streambeds in many parts of the South, with the main areas being Kapoeta, the Boma Plateau, south of Juba, and in northeast Upper Nile near the Ethiopian border.

Chromites, nickel, and talc are found in Central and Eastern Equatoria. Uranium and other radioactive mineral deposits have been reported in Western Bahr el Ghazal and east of Juba. The other significant minerals found together with uranium deposits include thorium and lead. Copper is also associated with the mineral.

Diamonds have been reported in riverbeds in Western Equatoria and Western Bahr el Ghazal. The occurrences of alluvial diamonds in neighboring Central African Republic and Congo (Zaire) raise the probability of diamonds in these parts of Southern Sudan adjacent to both countries.

Huge deposits of limestone crop out in Eastern Equatoria in the Didinga Hills, the Kapoeta area, and near Torit. Exploratory work was carried out in the 1980s with the intention of erecting a cement factory in Kapoeta. The results were not conclusive.

Iron mining was carried out in many parts of the laterite land formations of Bahr el Ghazal and Equatoria. Many small-scale old smelting sites can still be located today. Other significant minerals available in Southern Sudan include asbestos, niobium, glass sands, mica, gravel, and granite imbedded in different rock formations.

3.3. Energy Resources

Most of the Southern Sudanese rely on biomass for their energy needs. This basically consists of wood, crop-residue, and animal dung. In the urban areas, biomass is supplemented with oil and gas. However, the South is well endowed with energy resources. Petroleum and natural gas are being exploited in Western Upper Nile. While Western Upper Nile is the current major oil producing state in Sudan, other areas of Southern Sudan are also rich in petroleum as illustrated in map 2 of the appendix.

In the early 1980s, Total Oil Company began exploring for oil in Jonglei and soon struck oil. Reports indicate that the whole sudd area from eastern Bahr el Ghazal/Western Upper Nile extending to Kapoeta on the Kenya border contains oil. Oil has also been discovered in the swamps of northeastern Upper Nile in the Melut and Adar/Machar swamps. The oil generating sediments in the South are dark shales, and hence, very rich in organic materials. In addition to the petroleum, the sudd must also contain other minerals such as peat and coal, given the nature of its origin from ages of sedimentation.

The hydroelectric potential of the South is great. This potential is greatest on the stretch of the Nile between Nimule and Juba where five rapids are located, with the Fola and Bedden rapids being the two largest. The exploitation of any one of these falls could satisfy the South's energy needs. Other hydroelectric potentials are available on small rivers such as the Busere, Kayaya (Kaia), Kit, Kinyeti, Naam, Sue, Tonj, and Yei. Furthermore, the South could also tap its solar and wind energy sources.

4. A Vision for Development Prospects

Although Southern Sudan has tremendous natural resources, it will take some time before the benefits of proper utilization of those resources can significantly impact on the living conditions of the population. How long it will take for the effects of recovery activities to begin to be felt will depend on the speed with which the governmental structures in Southern Sudan will be established, the resources available during the relief period as well as on the implementation of quick impact programs and projects.

Relief should be available to all the needy regardless of whether they are internally displaced, returning refugees, or stayees (those who stayed and never left their home areas). Need should be the basis of relief and resettlement. Effective decentralization of government to the grass roots, especially to the county level, will make the system respond better to local needs and issues. The fact that some county administrations already exist in many parts of the

territory, and have established County Development Committees (CDCs), will speed up the process of resettlement, rehabilitation, and development. However, given the narrow or even non-existent tax bases of the county governments, the Government of Southern Sudan (GOSS) should share the Southern portion of the oil revenue with the lower levels of government.

In the medium to the long-run, the size of the peace dividend should continuously increase depending on the growth and development goals and strategies of the Government of Southern Sudan (GOSS), assuming that the peace is durable. While Southern Sudan should not expect to achieve the Millennium Development Goals within the time framework set (by 2015), given its late start and the level from where the territory is beginning, these goals can act as guidelines for its performance.

5. The Millennium Development Goals

In September 2000, the United Nations Millennium Declaration listed eight goals to rid humanity of abject and dehumanizing conditions of extreme poverty (www.developmentgoals.org). The Millennium Development Goals are: (1) Eradicate extreme poverty and hunger; (2) Achieve universal primary education; (3) Promote gender equality and empower women; (4) Reduce child mortality; (5) Improve maternal health; (6) Combat HIV/AIDS, malaria, and other diseases; (7) ensure environmental sustainability; and (8) Develop a global partnership for development.

The first seven goals are directed at reducing poverty in all its forms while the last goal is about the means to achieve the first seven. Southern Sudan should set its own strategies and time frames for moving toward the attainment of those goals.

The targets for goal one are to halve the proportion of people whose income is less than \$1 a day by 2015; and to halve, by the same date, the proportion of people who suffer from hunger. Some of the performance indicators of the achievement of these targets include the proportion of population below minimum level of dietary energy consumption and the prevalence of underweight in children less than five years of age.

The achievement of universal primary education is by ensuring that, by 2015, children, boys and girls alike, will be able to complete a full course of primary school. Primary completion is preferred to mere number of enrollment in primary school. The aim is to measure the number of students who successfully graduate from primary school. The

completion rate measures the quality and the efficiency of the schools system, unlike gross and net enrollment rates. The literacy rates of the 15 to 24-year olds will also indicate the performance of the basic education system and the effectiveness of informal education.

The promotion of gender equality and the empowerment of women become more urgent as women now shoulder more responsibility, particularly in the rural areas.⁵ More men than women left home during the war. Peace time is not likely to reverse this trend. The key long-run strategy is to eliminate gender disparity in primary and secondary education. The differences between boys' and girls' schooling is greatest in countries with the lowest primary completion rates and lowest average incomes. This means Southern Sudan will have to make special effort to attain this goal. Beyond schooling, the goal of promoting gender equality and empowering women extends to reducing and eventually eliminating gender disparity in literacy, in the labor market, and participation in power and decision-making.

Child mortality is targeted to be reduced by two thirds. Child mortality is closely linked to poverty. For approximately 70 percent of the deaths before age five, the cause is a disease or a combination of diseases and malnutrition that is preventable: acute respiratory infections, diarrhea, measles, and malaria (www.developmentgoals.org). Just as child deaths are the result of many causes, reducing child mortality will require multiple, complementary interventions. Rising incomes will help; so will increasing public spending on health services. Access to safe water, better sanitation facilities, and improvements in education, especially for girls and mothers, are closely linked to reduced mortality. Also needed are roads to improve access to health facilities and modern forms of energy to reduce dependence on traditional fuels, which cause damaging indoor power pollution.

A major factor contributing to child mortality is malnutrition, which weakens children and reduces their resistance to disease. Malnutrition contributes to more than half of all child deaths. Immunization is an essential component in reducing under-five mortality rates. Among the childhood vaccine-preventable disease measles is the leading cause of child mortality. Increased routine measles immunization to cover as many children as possible, with a second dose, will reduce child mortality.

There are very high risks of dying from pregnancy or childbirth in low income-countries. Deliveries should be attended by professional health staff. Training should be extended to the traditional attendants. Life-saving interventions such as antibiotics, surgery, and

⁵ The Sudan People's Liberation Movement (SPLM) has reserved 25 percent of all positions in government in Southern Sudan for women. In addition to that, they (women) are free to compete for the remaining 75 percent. This applies to all spheres of government in the South: that is administration, judiciary, and legislature.

transportation to medical centers should be available to women, especially in rural areas. Maternal mortality will decline considerably as more births are attended by skilled health personnel.

While the rate of HIV/AIDS infection is still low in Southern Sudan, there is fear that it will rise fast with free movement during peace and the return of refugees from countries with higher rates of infection. Programs of public awareness must be initiated. Programs that have proved effective in neighboring countries must be copied. Malaria is endemic and many people, especially children, die from the disease. Treated bed-nets are a proven way to combat the disease, but they are too expensive for the bulk of the population. Tuberculosis is another disease to focus on. The emergence of drug-resistant strains of tuberculosis; the spread of HIV/AIDS, which reduces resistance to tuberculosis; and the inevitable growing congestion in poor urban areas will worsen the situation.

Kalazar is another serious disease in Southern Sudan, especially in Western Upper Nile, the center of Sudanese oil industry. Hopefully some of the oil revenues will be used to improve the living and health conditions of the local inhabitants.

Environmental sustainability is crucial for sustained development. This is particularly important for Southern Sudan in the utilization of its forestry, the exploitation of petroleum and other minerals, swamps, and the future of the Jonglei Canal. Urban development must ensure clean and safe environment.

Better natural resource management increases the income and nutrition of poor people. The cutting of forests, burning of biomass, coal, oil, and natural gas can have adverse consequences on the environment. While this is unavoidable in the short-run, the South should plan for greater use of its hydro-electric power potential, windmills, and solar energy.

Lack of clean water and basic sanitation is the main reason diseases transmitted by feces are so common in many poor urban areas. This leads to many deaths from diarrhea, especially among children. Building reliable sources of water that are reasonably protected from contamination is important in improving health and reducing time spent collecting water. Access to basic sanitation systems provides disposal facilities that can effectively prevent human, animal, and insect contact with excreta. Improved water and sanitation reduce child mortality. Better drainage reduces malaria. It also reduces the risk of disaster from floods.

Urban poverty, physical and environmental deprivation is most acute in slums. The typical slums are unplanned informal settlements where access to services is minimal to non-existent, and where overcrowding is the norm. Slum conditions place residents at a higher risk of

disease, mortality, and misfortune. These are the areas where the explosive, post-war urban growth will occur. Policies must be devised to address such problems.

As for the eighth goal, Southern Sudan will have insignificant influence over the shaping of the international system. Hence, it should try its best to mobilize as much domestic resources as possible, especially the solidarity of its population. However, the USAID and the Norwegian People's Aid (NPA), among others, have been generous in funding some programs during the war. The South should utilize whatever little resources it gets as effectively as possible. It is not only the amount of available resources that matters; but its productive utilization is also important.

6. Analyses on Poverty Reduction

Eradicating abject poverty must figure prominently among the development goals. An earlier work on economic growth scenarios for poverty reduction in post-war Southern Sudan has been undertaken by Ali Abdel Gadir Ali (2004). Ali's paper addresses the issues of how Sudan can achieve the Millennium Development Goal of halving poverty by 2015. However, while the Millennium Development Goals baseline was 1990, Ali's is 2005 when the North-South war ended. Ali makes investment requirements and growth scenarios for a ten-year period (2005-2015) and a fifteen-year period (2005-2020). After arriving at national and regional investment and growth targets, then the question is how to come up with the investment resources to achieve those targets?

The Sudan Joint Assessment Mission (JAM, 2005) also emphasizes the need to eradicate abject poverty and reduce poverty in general by 2011. The Sudanese authorities will probably take the 2011 dead-line most seriously, relative to 2015 and 2020, as it will be the end of the Interim Period of the North-South peace agreement, when the South will vote for either unity of Sudan or separate nationhood for the South.

Using the Harrod-Domar growth model, Ali arrived at capital output ratios and rates of required investment to achieve growth rates of per capita GDP that can enable the achievement of the MDG either by 2015 or 2020. The required growth rate for the South for the period of ten years would be 31 percent if it can invest 227 percent of its GDP at the capital output ratio of 7.4. If the longer period of 15 years is taken, the required rate of investment would be 157 percent of Southern GDP, to achieve a rate of growth of GDP of 21 percent. The implications for national development effort in the South are that, for the ten-year period, 31.2 percent of overall investment in Sudan should be undertaken in the South,

which is about 10.7 percent of Sudan's GDP. For the 15-year period, the levels of commitment of national investment resources to the South would have to be 28 percent, which is equivalent to about 7.4 percent of national GDP. These figures would be higher or even double if account is taken of the returning of refugees and the internally displaced persons to the South. The proportion of the South's population in total Sudanese population will be almost double the 16 percent assumed in Ali's analysis (Yongo-Bure, 2004b).

These staggering estimates are definitely beyond achievement, even by the fastest growing economy. Furthermore, in light of the lack of comprehensive and reliable data on Sudan, and the almost complete absence of data on the South, one wonders how much faith should be paid to macroeconomic data for the analysis of development policy for Southern Sudan. Intuition, combined with field surveys, may give a closer picture of the situation. For example, on capital-output ratios, past data may not mean much since most of the projects never materialized, and some of the imported machinery deteriorated at project sites without being installed, leave alone producing any output. Would it not be more accurate to estimate the required levels on investment by sectors on the basis of typical projects? For instance, the capital requirements for road construction could be based on the cost per mile constructed in each of the ecological zones in the South (Green Belt, Flood Plains, Ironstone Plateau, etc). Similarly, for administrative and school buildings, the capital requirements could be based on a typical modern unit multiplied by the number of units to be constructed per annum. In the meanwhile, the building of data base should go hand in hand with the reconstruction and development efforts.

The JAM divides the Interim Period into two phases: 2005-2007 and 2008-2011. Phase I, the recovery phase, will mostly focus on rehabilitation and establishing the basic structures of government and the economy. Eradication of abject poverty will be the main objective of developmental activities. Long-term development goals and objectives will be embarked on in the second phase when a structure will be in place. The financial requirements for 2005-2007 are detailed while those of the second phase are rough estimates. The total financial needs for the first phase are \$3.6 billions with a financing gap of \$1.4 billion (JAM 2005 I: 10, 51). The sectoral allocation of the resources in phase one is shown in table 1.

Table 1: Phase I JAM Costs for Southern Sudan, (\$ million)

Cluster	2005	2006	2007	Total	Percent of Total
Capacity building & Institutional dev.	107	236	268	611	17.0
Governance and rule of law	30	67	46	144	4.0
Economic policy	1	2	2	4	0.1
Productive sectors	55	120	133	308	9.0
Basic social services	138	415	442	995	28.0
Infrastructure	197	260	556	1,013	29.0
of which national infrastructure	120	159	339	618	
Livelihoods and social protection*	76	177	194	446	13.0
Information & statistics	5.1	13.0	13.3	31	1.0
Total	608	1,290	1,655	3,553	100.0

Note: The figures for 2005 are for July to December only. *estimates for Disarmament, Demobilization, and Reintegration (DDR) were not yet available; and hence, were not included.

Source: JAM, *Volume I: Synthesis*, p. 57.

The largest items of expenditure in Phase I are infrastructure, basic services (especially education), and institutional reform and capacity building, which includes transfers to sub-Southern governments. This is dictated by the fact that Southern Sudan starts from a position of extreme poverty and underdevelopment with limited and weak skills, and virtually non-existent normal institutions of government.

After the recovery phase, public investment will have to be accelerated if the poverty and some of the other Millennium Development Goals are to be achieved by 2015. The bulk of such an investment would be used to improve social service and infrastructure. They would be channeled to education, health, water, agriculture, and transfer to local governments, and roads to link markets and promote rural access. Such investments will not only provide direct employment and income, they would also raise labor and general productivity in the economy.

7. Suggestions for a Growth Strategy and Development Policies

A growth and development strategy that is aimed at reaching the bulk of the population is essential for improving the living conditions of the majority. Given that the majority of the Southern Sudanese are rural, then rural development and decentralized administration become

the corner stones of such a strategy. But the immediate post-war period will witness a massive wave of urbanization as most of the internally displaced and refugees will probably not return to their previous rural habitats. With virtually no manufacturing industry in the urban areas, absorbing the urban population in gainful employment will be very difficult. However, creating of many productive activities in the rural areas will slow the rate of urbanization.

A general improvement in the living conditions in the rural areas will depend on the rate of development of peasant agriculture. Peasant agriculture had contributed to the growth and development of a number of African countries during the colonial and early post-colonial periods. Examples include the growing of cotton and coffee in Uganda, cocoa in Ghana, cocoa in Western Nigeria, and cotton, groundnuts, and cattle in Northern Nigeria.

In the past, during peaceful periods and when weather conditions were favorable Southern Sudanese peasants were self-sufficient in their basic food needs, with some sales in the urban centers to purchase farm implements and basic consumer goods. The main impediments to peasant increased output were infrastructure constraints and lack of marketing facilities and incentives.

7.1 Agriculture

Cognizant of the fact that peasant agriculture is the predominant economic activity in Southern Sudan, policy makers of the territory will have to place immediate and major efforts to increasing acreage and raising the productivity of farming. In the short-run and even in the medium-run, virtually all the administrative, infrastructural, financial, and social services development should be directed primarily at facilitating the growth of the agricultural sector. Preservation of harvests is as important as the production of the produce. The supply of seeds, fertilizers, and agricultural tools will enable peasants to produce more for their households and the market. This will mean abundant supply of food in urban areas, lowering the cost of living, and the cost of production in industry and other sectors. Raw material for agro-industry and export earnings for servicing and expanding the economy will be ensured.

Availability of consumer goods gives the peasants incentives to earn extra income. Consequently, in the early period of peace, when there is hardly any domestic manufacturing, imports of consumer goods should be biased towards the basic needs and wants of the peasants. Import of household utensils, basic textiles, blankets, bicycles, sewing machines, farm implements, baggage, building materials, etc will spur higher development effort.

For long-term increase in agricultural productivity, demonstration plots in research stations and substations in various ecological zones, aided by extension agents, should continuously

test, under more practical conditions, a variety of seeds, ploughs, and other techniques. Simple methods of supplementary dry season irrigation should be developed. Water pumps for overhead irrigation should be imported and eventually manufactured domestically.

As of 2005, the agricultural system is still characterized by shifting cultivation and intercropping of traditional varieties of crops. These crops are well adapted to the local soils, climate, pests, and diseases. In the immediate and short-run, these will be the basis of food production; but must eventually be developed through improved seed varieties and other appropriate technological changes.

Similarly, agricultural production tools and implements for land clearing, weeding, and harvesting have remained traditional and are appropriate only for subsistence production. More and improved farm implements will have to be supplied, repair facilities developed, and domestic manufacture of improved tools and implements will have to be established.

Another factor militating against food security is crop failure resulting from drought and floods. Introduction of drought resistant short-maturing crops is a necessity. Introduction and expansion of low land rice and varieties of other lowland crops could reduce the impact of flooding. Food for work public programs can ease some of the effects of crop failures. In the long-run crop insurance schemes should be developed, where the farmer will be compensated for effort made as measured by her/his average acreage destroyed by drought or floods. Rural non-farm activities will also avail farmers with income for food purchases.

In the long-run, the wide variety of indigenous food plants should be developed and integrated into the agro-forestry farming systems. These crops consist largely of vegetables and fruits. They have relieved societies from food shortages for generations. Moreover, some of the plants have been supplying effective local medicine and could be developed into modern medicine.

To minimize reliance on exhaustible resource like oil, the South should begin to develop a variety of export crops. In addition to oil seeds, coffee, cotton, tea, and palm oil have been grown for cash in Southern Sudan. In the 1990s, other crops have demonstrated their potential for supplying the local and export markets (SPLM, 2000). These crops included native vanilla, shea butter, chilies, sunflower, gum arabic, soy beans, vegetables, fruits, and honey. In the short-run, expansion in the production of these crops should be encouraged. But in the medium and long-run, research into these crops for varieties that are high-yielding, pest and disease resistant will be important.

Some of the food problems are not due to inadequate output but result from lack of inadequate and inappropriate storage facilities or processing. Large quantities of crops are lost

to pests, diseases, and poor handling practices during post-harvest operations. Problems with threshing, cleaning, storage, and transportation reduce the value of output. While traditional storage systems may be relatively efficient for traditional crops produced in small quantities, they are not suitable for new crop varieties and for large volumes of output. Hence, to guarantee sufficient local food reserves and quantity requirements for external sales, large and efficient storage facilities and efficient processing practices should be developed. Furthermore, refrigeration facilities will have to be developed for vegetable, fruit, and fish marketing. Large quantities of fruits, vegetables, and fish rot in the production areas because of lack of such facilities. Large amounts of them are either thrown away or sold at throw-away prices at the end of the market days because they can not be preserved for the next day.

A massive vaccination program and count of livestock should be launched immediately. Also essential for the animal industry are the provision of dry season watering points, and the creation of artificial reservoirs or lakes for dry season watering and grazing. Training of many veterinarians and veterinary assistants must be immediately embarked upon. Research and cross-breeding will have to be restarted. Veterinary laboratories for vaccine production and testing will be constructed. Wildlife development for meat, skins, tourism, and long-term ecological balance are important.

7.2 Agro-industries and Manufacturing

The development of the manufacturing sector will be minimal in the short-run, but its importance should progressively increase over time. Modern processing of agricultural products will increasingly become important as quantities increase and economies of scale as well as quality improvement can be realized. Introduction of appropriate technology or light processing industries would reduce the work load for women who usually do the traditional labor-intensive processing. Agro-based processing will increase the production of necessities and add value to exports, expand employment opportunities, and raise incomes.

As agricultural production picks up, agro-industries should be upgraded beyond the processing level. Projects to deal with the processing and manufacture of products from groundnuts, pineapples, tea, sorghum, maize, cattle, and sheep will be established. In the medium-run, commercial farms and livestock raising centers will have to supplement peasant production in areas designated for large scale manufacture of farm products. The cattle and sheep raising centers and related processing plants should take advantage of the large livestock industry in the South. Poultry raising and egg production centers reinforce the

supply of proteins in urban areas while household poultry raising should be encouraged in the rural areas as the keeping of these birds is widespread in the countryside.

Manufacturing in the early years of recovery should selectively focus on those activities relevant to rehabilitation, using as much local material as possible. The building materials industry is among the priority sectors. There is need for carpentry at the local level for the manufacture of furniture. Repair and manufacture of farm implements will enhance the growth of the agricultural sector. Manufacture of packaging material will gain in prominence as agricultural production and exports increase. Other products that can easily be produced in the early stages of manufacturing and are essential include aluminum utensils, blankets, clothing, hosiery, cardboard boxes, sanitary fittings, toothpaste, and many others.

Small-scale and handicraft industries can make a significant contribution in generating employment, supplying inputs, and consumer goods (Yongo-Bure,1992). Tailoring, grinding mills, brick-laying, repair works, soap-making, sheet metal fabricating, paint and varnishes, and wire are among these industries. The wire products industry will produce minor but essential products such as nails and screws.

With increasing population, urbanization, and development, there will be increased need for housing, industrial, and other productive units such as warehouses, livestock and breeding farms, etc. In addition to the forward linkages, the manufacture of building materials has also strong backward linkages to the brick, cement, and wood industries. Hence, its impact on production, employment, and income would be substantial. Moreover, its products will increase the longevity of capital goods in the South, particularly in the housing sector, currently largely relying on grass and wood. The wood processing industry will include products such as doors, windows, office furniture, etc. as well as the manufacture of matches.

Textile and leather industries have strong linkages to the Southern economy. Southern Sudan used to and can produce plenty of fine cotton. It has tremendous animal wealth. With rapid urbanization, manufacture of sanitary products and fittings will be urgent. To expand education at as low cost as possible, many educational supplies will have to be manufactured in the South. Hence, there is need for developing the pulp and paper industry from the abundant local papyrus as well as from agricultural and wood by-products.

The manufacturing of various spare parts for vehicles and industry will improve the overall performance of the economy, as high capacity utilization will be made possible. Given the low level of entrepreneurship in the modern manufacturing sector, government policy will have to play an important role in the acquisition of skills and the development of local entrepreneurship. Public policy should also encourage inter-sectoral linkages.

7.3 Infrastructure

Southern Sudan lacks any modern infrastructure. The immediate areas of development which will contribute to expanding opportunities and sustained development will include public buildings, roads and bridges, river transport, airports and airstrips, postal services, telecommunications, especially radio broadcasting in the various indigenous languages.

The rudimentary transportation system that existed in Southern Sudan before the war has fallen into disrepair or being mined during the war. De-mining and reconstruction of some of the roads has started. However, most of the reconstruction is going to be focused on the main transportation links between major towns in the South, between the South and the North, as well as linking the South with neighboring countries (Yongo-Bure, 2004a).

For major improvement of navigability and efficiency of the Nile along the Kosti-Juba Stretch the following actions will be needed: (i) development of a signaling system on the navigable waterways; (ii) dredging operations; (iii) fleet improvement; (iv) development of shipyards for both construction and repair of vessels at Juba and Malakal; and (v) restructuring and improvement of the river ports, at least, at Juba, Malakal, Bor, Mangella, Renk, Geiger, Kaka, Adok, and Shambe. To cover and link most parts of Southern Sudan, the minimum road network to be undertaken should at least include the roads shown in table 2. These roads cover some of the main administrative and productive areas of the South. They also link the South to the North and to the neighboring countries.

Table 2: Distribution and Length (Km) of Main Roads in Southern Sudan

Bahr el Ghazal	Length	Equatoria	Length	Upper Nile	Length
Wau-Gogrial	101	Yambio-Boo	411	Malakal-Ayod	240
Wau-Aweil	149	Yambio-Meridi	134	Malakal-Renk	326
Wau-Raga	339	Meridi-Jambo	182	Malakal-Bentiu	300
Wau-Boo	115	Jambu-Juba	113	Ayod-Lukpadit	96
Wau-Tonj	101	Juba-Nimule	187	Lukpadit-Kongor	77
Tonj-Rumbek	120	Juba-Yei-Lasu	219	Kongor-Bor	120
Rumbek-Yirol	120	Juba-Gemmeija	139	Bor-Gemmeja	56
Yirol-Shambe	72	Juba-Torit	134	Bor-Pibor	127
Rumbek-Mvolo	134	Torit-Kapoeta	176	Malakal-Nasir	na
Mvolo-Mundri	85	Kapoeta-Lock*	112	Akobo-Pibor	na
Total	1,336		1,807		1,339**

Note: *Lock= Lockichoggio in Kenya; ** Total greater than 1,339.

Source: Roads and Bridges Corporation, *The USAID Southern Road Rehabilitation Projects, Working Paper*, (Khartoum, 1981)

There are other major roads not included in table 2. These include Wau-Dam Zubeir, Dam Zubeir-Raga, Raga-KafiaKingi-Hufrat el Nahas, KafiaKingi-Aweil, Raga-Aweil, Gogrial-Wunrok-Abyei, Wunrok-Abiemnhom-Bentiu, Paloich-Maban-Jokou, Nasir-Akobo, Malakal-Waat-Akobo, Akobo-Pochala, Kapoeta-Chikudum, Torit-Lafon, Torit-Magwi-Nimule, Juba-KajoKeji, Yei-KajoKeji, Terekeka-Amadi, and Tali-Yirol.

The JAM envisions several priority programs in two phases. By 2007, a basic transport infrastructure network mainly roads, river transport, and aviation will be in place. This will require opening up of 15,000 kilometers of the South to be phased with the preparation of technical and feasibility studies (JAM I: 40-41). Five tarmac roads are to be completed in the first phase. However, most of the activities in the first phase will be concentrated in building capacity for infrastructure development as well as planning the various details of the sector. Most of the implementation will be concentrated in the second phase.

On May 16, 2005, in his address on the founding of the Sudan Peoples Liberation Army/Movement (SPLM/SPLA), John Garang, the leader of the SPLA/M, announced that thirteen major roads will be constructed (www.gurtong.com). These roads are distributed all over Southern Sudan; and link the South with the North as well as the neighboring countries. They are: (1) Juba-Nimule, (2) Juba-Kapoeta-Lokichoggio, (3) Wau-Rumbek-Meridi-Yei-Kaya, (4) Juba-Yei-Lasu, (5) Juba-Malakal-Renk, (6) Wau-Tembura-Yambio-Meridi, (7) Rumbek-Yirol-Bor-Pochalla, (8) Wau-Warrap-Abyei-Kadugli, (9) Melut-Adar-Ulu-Kurmuk-Damazine, (10) Malakal-Nasir-Jekou, (11) Wau-Aweil-Babanusa, (12) Wau-Raja-Nyala, and (13) Shambe-Yirol-Bentiu-Pariang-Jaw-Kadugli (www.gurtong.com). There is also a planned railway to link the South to Mombasa on the Indian Ocean. However, the only major infrastructure constructions that have actually started and made substantial progress are the Juba-Lokichoggio (Kenya) and the Rumbek-Yei-Kaya (Uganda) roads. The improvements of the Yei-Rumbek road has cut the traveling time between the two towns from 15 to 3 days.

While the major international, interregional, and intraregional links are important for the general rehabilitation and development of Southern Sudan, of equal importance to poverty reduction are rural access roads. Moreover, the intraregional, interregional, and international links are going to claim priority on investment resources. Machinery will be concentrated on the major roads. Therefore, there is need for instituting labor-intensive public works programs at the county level to begin work on rural infrastructure. Construction of feeder roads and opening up of previously inaccessible areas will lead to increased food production by enabling peasants to get their produce to the market. The use of local labor will infuse more cash into

the rural economy and raise income and trade, in addition to raising the general productivity of the economy.

7.4 Rural Access Roads

Lack of a reasonably reliable and economic means of personal and goods transport in rural areas is a major constraint in rural development. Hence, large areas of productive agricultural lands are beyond usable roads. These remote areas are usually populated by some of the poorest rural groups. They rely on networks of paths, trails, tracks, and unimproved roads to connect their homes, farmlands, and villages to improved feeder roads, schools, health units, and markets. This is particularly a major problem for Southern Sudan given that it has not built even the basic network of primary, secondary, and tertiary traffic arteries.

To address this problem, labor-intensive public works should be set up with a high degree of decentralization to the county level. In addition to speeding up the reconstruction and rehabilitation effort, such a policy will also inject money to the grassroots level, and increase demand for local products. The access should not be limited to financing the physical infrastructure, but also the transport modes or aids such as bicycles, buses, and trucks/lorries. In most cases, the population depends on walking and carrying their goods in head baskets. During the rainy season, nearby villages may be separated by flooded streams, and children have to miss school because of overflowing rivers and streams. Flooded water crossings may be sources of infectious diseases. Minimizing the various hardships the rural population experience on daily and seasonal basis can promote social intercourse and open up markets for both rural and urban populations with positive impact on production, commerce, and general socio-economic development.

Oil refineries should be built in the oil producing areas, with pipelines linking the refineries to the major Southern consuming areas. Large oil storage depots should be built in every county. All these measures will ensure reliability of fuel supply at lower prices than if the oil is to be pumped for refining in the North to be re-transported to the South. The multiplier effects of the construction and operation of refineries and pipelines will considerably contribute to the alleviation of poverty.

The local petroleum should enable the South to have electricity in every city, commercial center, and county capital in the short-run. Work should begin on the exploitation of the South's major hydroelectric potential so that within a decade, hydroelectricity will be the main source of power in the South, leading to a general electrification of the South. In the

short to medium-run, small hydroelectric plants can speed up the electrification process without having to rely on thermal power only.

7.5 Social Services

The population expects marked improvement in social services, especially health, education, and reliable clean water supply within reasonable walking distance. In the health sector, continuation of the immunization programs is crucial. Another immediate action will be to rehabilitate primary health care and Maternal and Child Health (MCH) units all over Southern Sudan and have at least one functioning hospital in every county. Special attention is to be paid to a comprehensive HIV/AIDS awareness raising campaign. Political, religious, and community leaders will have to take the lead in the fight against this pandemic. Lessons will have to be drawn from Uganda and other countries that have demonstrated sound public policies in addressing this problem.

The need for trained human resources at all levels of the health sector is great. Given the long gestation period of educating and training quality human resources, major efforts should begin immediately. Not only the education and training of doctors and nurses should be embarked upon, but also that of other health auxiliaries, so as to minimize and eventually avoid wastage of equipment, instruments, and misuse of drugs. Referral hospitals, blood banks, medical supply stores, and laboratories will have to be established and distributed widely all over the South, with

the eventual goal of every county having one of each of these facilities.

Reaching the MDG targets by 2015 represents an enormous challenge. For the referendum year of 2011, the authorities plan to reduce child chronic malnutrition from 45 percent to 30 percent; under-five mortality from about 250 to 140 per 1,000; maternal mortality from 1,700 to 850 per 100,000; and achieve progress in stopping the spread and decrease the incidence of HIV/AIDS, malaria, and other diseases. Coverage is to be increased to 50 percent of the population by 2001; and to 73 percent by 2015 (JAM III:171-173).

Success in the health sector will depend on progress in other sectors notably infrastructure, economic, education, and agricultural development. Health care providers will be trained in environmental matters to ensure safe waste management and treatment.

The problems of water borne disease can be most effectively addressed by supplying clean water in both rural and urban areas. More boreholes should be drilled in the rural areas so as to cover all the rural population. Piped water supply should be available to all residents of cities in the long-run. In the short-run, boreholes should supplement urban water supply.

Facilities and spare parts for the servicing and maintenance of water supply machinery, equipment, and vehicles should be available at the county level. Other important long-term policy issues, regarding drinking water, include the building of community capacity to maintain the installed facilities as well as the extension of the services to cover all the population. This will involve training of servicing and maintenance capacity at the county and eventually at the community level. Local sources of funds, to be supplemented with central resources, will have to be developed.

The overall goal of the South for 2011 is to achieve and track progress towards water and sanitation related to the MDG targets (JAM III: 156-160). This will require considerable investment, urgent improvement in the current low coverage of rural safe water supply as well as sanitary conditions. There is also need to ensure that every school and health facility has access to a safe water point within 100 meters and sanitary latrines for boys and girls. Local capacities of counties, municipalities, and town councils for management, supervision and financing will have been developed. The local governments will have the technical capacities for routine pump and engine repairs. They will be trained so as to be able to extend services to communities in need on a revolving cost recovery basis. All water points will be staffed by two trained village-level repair workers, equipped with appropriate tools supported by county-level maintenance services. Warehousing and distribution networks will have been established with local entrepreneur support for hand-pump and water yard spare-parts supply and technical back-up. Furthermore, hygiene will be integrated in the primary school curriculum as well as in other community outreach groups.

Education and training are the keys to unlocking the major constraints on the development of Southern Sudan. Without accelerated expansion of educational opportunities, at all levels for Southern Sudanese, the development of the territory will continue to lag. The expansion of on-the-job training opportunities is also crucial especially in the short-run.

With over 2,000 primary schools during the war, the population will even be more determined to educate their children during peace time (SPLM, 2000). Hence, more effort will be needed to build more schools at all levels and upgrade the existing facilities. Every village or boma should have a four-year primary day school. Each county should construct and run a number of boarding Upper Primary schools distributed in various Payams. These schools will provide market for local farmers as food supplies will be purchased locally.

While the county authorities will be responsible for the construction and running of the primary schools, the Government of Southern Sudan (GOSS) will have to allocate some funds per pupil as well as lump-sum amounts for construction of more primary schools. Carpentries

and other skill training centers will have to be established in the counties to supply furniture for schools, health units, offices, etc. These facilities will provide employment for the locals, raise incomes, and enhance skill development and hence sustained development.

The Government of Southern Sudan (GOSS) and state governments will have to shoulder the responsibility for secondary and higher education. They will have to train teachers to staff all primary schools in about 6 years. In the meanwhile, some teachers should be imported. Southern Sudanese school leavers from Northern Sudan and neighboring countries should be trained in large numbers in colleges/institutes designed for the purposes of meeting the goal of universal free primary education. Given that the returning school leavers are from various educational backgrounds, language and remedial courses in basic subjects such as mathematics, sciences, geography, and history should be offered to them.

To achieve the goal of universal primary education, higher education will have to be greatly expanded to produce the necessary number of teachers and other trained human resources. The universities of Juba, Malakal, and Wau should be considerably expanded in both student-intake and the variety of courses dependent on the needs of the South. For the various developments envisaged and for the efficient running of both the public and private sectors, the South needs a basic stock of well-educated and trained people. Beginning at a low level of stock, a big push has to be made to fill the wide gap otherwise whatever development is initiated in the short-run will not become sustainable. The implementation, management, monitoring, and evaluation of all programs need well educated and trained human resources. While importation may fill in the gaps, in the long-run local human resources will be important for the sustenance of development.

The plan of the GOSS is to target education for all by 2011 and the achievement of the MDGs by 2015. The objectives are to increase gross primary enrollment from 22 percent in 2003 to 55 percent by 2011; 15 percent of out-of-school youth will be enrolled in alternative education systems; provide a cumulative 15 percent of adult with access to literacy campaigns and accelerated learning programs; and improve the quality of basic education (JAM III: 186).

As for the promotion of gender equality and the empowerment of women, the GOSS plans to redress the gender imbalances through: increasing girls enrollment in primary school from 11 percent to 40 percent by 2011; the number of village schools for girls will be increased to over 3,000; and women will be the focus of adult literacy through accelerated learning programs. Considerable emphasis and resources will be devoted to accelerated learning opportunities for those youth and adults who are beyond the normal entry age to basic

education. Focus will particularly be on child soldiers. Half of SPLA soldiers will be enrolled in alternative education programs.

Marketable and entrepreneurial skills will be built into the curriculum. The basic education curriculum will include vocational subjects. Vocational centers will be established for out-of-school youths, including demobilized soldiers. Technical, science, vocational, commercial, and agricultural schools/institutes will be set up. Higher education will focus on assuring adequate supply of skilled labor.

To match the rapid expansion in basic education, teachers training will be stepped up. Hence, teachers training institutes, a network of training resource centers, and school cluster centers will be established. Children should complete grade eight with quality basic education. Proper child nutrition will be promoted through school feeding program

7.6 Financial Institutions

The South has no financial infrastructure. Considerable efforts will have to be made to develop such a vital sector. At least a few commercial banks and an insurance and re-insurance company/corporation must be set up. It will take time before the habit of banking becomes widespread. The Government of Southern Sudan, the Bank of Southern Sudan, and the Southern universities should devise a plan to educate and train human resources for the establishment of the nucleus of a financial system so that within the six-year interim period every county will have at least a bank branch. The Bank of Southern Sudan should become an effective participant in determining national monetary policy in light of the conditions and needs of the Southern Sudanese economy.

Towards the end of the war the SPLM set up the Nile Commercial Bank, which now has offices in Rumbek, Yambio, and Yei in the South; as well as offices in Kampala and Nairobi. Some County Development Committees (CDCs) set up County Development Revolving Funds, as a form of micro finance, with USAID support. This has helped in the development of some micro enterprises such as soap, cooking oil, and fruit processing (SPLM, 2000). Expansion of micro finance services at the local level will boost rural production, employment, and incomes.

8. Macroeconomic Policy Framework

Definitely growth and development in the South, like in every other economy, will depend on a stable macroeconomic environment. The Bank of Southern Sudan and the Bank of Sudan

will hopefully be independent of the politicians. However, this is uncertain especially in light of the foreseen resource constraints. It is even doubtful whether the central bank of a developing country, with undeveloped financial system, can operate largely on market based instruments without resorting to administrative procedures as the Wealth Sharing Agreement stipulates. If this were possible, the Bank of Sudan should be practicing it now. What will all of a sudden change the situation?

However, it will be important for the Bank of Sudan to have branches all over the country, at least nine branches corresponding to the original nine provinces at independence. These branches will conduct research in the economies of their areas of jurisdictions so that when it comes to making decisions on monetary policy, the conditions in all the sub-economies in the country are taken into account. Otherwise it will be difficult, even for the economists, to reach consensus on the appropriate monetary and exchange rate policies. How will inflationary finance be distributed among the regions? The Bank of Sudan has been expanding inflationary credit to irrigation schemes. Will this facility be available to all other sub-sectors of agriculture? How will it be distributed?

What will be the appropriate exchange rate policies before a unified currency is agreed upon? After agreeing on the design of the currency, what about the sharing of the seignorage, not necessarily along North-South lines only? Won't the scenario of sharing the seignorage derived from the issuing of the Special Drawing Rights (SDRs) between developing and developed countries befall an effectively decentralized Sudan, given the diversity in living conditions in the center and the regions, real or perceived?⁶

As much as the revenue aspect of fiscal policy is part of the peace agreement, the stabilization aspect will be an on-going matter. Coordination of tax and expenditure policies will be difficult in light of the resource constraints. For example, cut backs in sensitive expenditures will be difficult to agree on.

Another economic and political factor about general stability in the economy emphasized in the Wealth Sharing Agreement is that of the oil sector and foreign investment. This will not depend on the parties to the agreement only but also on the perception of the benefits from oil extraction by all layers of society. Will the oil companies and governments be responsive to public pressures? What about if large amounts of oil will be produced in the North, will the South share in it or it will entirely be used in the North while the North will continue to take 50 percent of oil produced in the South?⁷

⁶ The developing countries argued for the allocation of the SDRs to member countries according to their development needs. The industrial countries wanted it allocated according to the existing member quotas with the International Monetary Fund (IMF). The industrial countries won

What about the commitment of all political groups in the country to the peace agreement? What about the signatories to the peace agreement, what took them so long to finalize an agreement when the whole country has been dying for peace? Are they really committed to peace? Ultimately, the question of general stability in the economy and politics may prove to be a key obstacle to poverty reduction and sustained growth and development in the country. However, given commitment to equality, peace, and coexistence the resource constraint can eventually be overcome, even though the high rates of growth projected in Ali's analysis may not be realized. But at least some high single-digit unit of growth will have to be attained.

9. Financing the Program

The gap between expenditure and revenue for Southern Sudan is very wide. Everything from general administration to defense and security, resettlement, physical infrastructure, social and economic development needs to be undertaken. Thank to the oil, Southern Sudan will begin with substantial source of its own revenue. The share of the South in its oil revenue, during the interim period, is determined by the Naivasha Wealth Sharing Agreement. How much that will amount to is unclear now. Assuming that the net share of the Government of Sudan oil revenue is \$1 billion, the share of the Government of Southern Sudan will be about \$480 million per annum and that for the oil producing states will be \$20 million after allowing for Khartoum's share and for the stabilization fund; assuming the stabilization fund will be fixed at about 2 percent just as the share of the oil producing states. On the optimistic side, should the total net Sudanese share from Southern oil reaches \$3 billion, the Government of Southern Sudan and the oil producing states will respectively get \$1.4 billion and \$60 million per annum.

Given the lack of past development and the impact of the war, the non-oil tax base of the South is very narrow. Hence, not much non-oil revenue can be expected to be generated in the South, for all levels of government, during the interim period. Sectors from which some revenue will be raised include forestry and border trade.

As there is no established financial infrastructure, government borrowing through the issue of financial instruments such as treasury bills and bonds will be near zero. The Southern share of seignorage after the unification of the currency is undefined but will probably be addressed during the negotiations on currency unification.

The Bank of Southern Sudan will have to extend credit for crop purchases during harvest periods. The Bank of Southern Sudan will have to directly shoulder this responsibility until financial institutions and the cooperative movement are developed. A monetary budget,

jointly run by the Bank of Southern Sudan and the Southern Treasury, may be needed to manage bank lending for rural development, especially for crop purchases. The impact of bank financing of rural development on inflation and the balance of payments may not be adverse as the potential demand for cash is great in the rural areas, and efforts to greater production are partly frustrated by limited demand. Moreover, for crop purchases, the volume of credit needed is flexible as it can be tied to the amounts of harvest.

The limited domestic resources have led to the inclusion of foreign aid in the peace agreement as a major source of funds for reconstruction and development. The Naivasha Wealth Sharing Agreement established the Southern Sudan Reconstruction and Development Fund (SSRDF) and the Multi-Donor-Trust Fund (MDTF) for the resettlement, rehabilitation, and reconstruction of Southern Sudan (www.gurtong.com and SPS:61-62). While the SSRDF will last beyond the interim period, it appears that the MDTF is meant for the six months of the Pre-Interim period only. Although resources for these funds are to be raised both from domestic and international sources, in practical terms they will be from the latter source only. Hence, it means the reconstruction and development of the South will greatly depend on foreign aid as it did during the Addis Ababa Agreement period (Yongo-Bure, 2005).

Substantial foreign resources were invested in Southern Sudan during the Addis Ababa Agreement period. It came in its various forms: multilateral, bilateral, and nongovernmental organizations (NGOs). Foreign funded projects yielded some benefits unlike those funded domestically, whether by the Central Government or by the Regional Government. However, the foreign funded projects were not integrated into the development plans of the Government of Southern Sudan. Most foreign agencies appeared to have had based their activities on what they perceived was the most urgent need. Consequently, there was hardly any coordination of the utilization of domestic and foreign resources. The seemingly successful foreign funded projects were likely to collapse as soon as the foreign support ended. This was because the running and maintenance of those projects depended entirely on inputs imported by funds generated from abroad. Neither the importing capacity nor the domestic energy resources of the South were being developed. For the development of Southern Sudan to become sustainable, the territory's capacity to implement and run its own activities must be built. This means considerable expenditures, both domestic and foreign, will have to be spent on building its physical, social, financial, and institutional infrastructure, as well as developing its technical and importing capacities.

For maximum expenditure impact on development and poverty reduction, foreign aid agencies this time should be assigned to work in specific sectors or areas. NGOs should be

assigned to work with particular counties or groups of contiguous counties, assisting the county government and other local authorities in carrying out their responsibilities such as building primary schools, health centers, drinking water facilities, feeder and access roads and bridges. Given the substantial resources bilateral and multilateral bodies can mobilize, they should work with the Government of Southern Sudan on the major projects such as the main roads and bridges, secondary schools, training institutes, universities, research centers, power and energy, airports, railways, and urban development.

Two NGOs that concentrated their activities in particular areas or projects had noticeable impacts on development and poverty reduction during the previous peace period. These were the Sudan Council of Churches (SCC) and the Norwegian Church Aid (NCA) (Yongo-Bure, 2003). The Sudan Council of Churches undertook grassroots development activities in many parts of the South. It supplied improved seeds and hand-tools to many farmers in various parts of the South. The SCC financed and executed the Raja livestock and agricultural extension project as well as the Rumbek Ox-cultivation project. It executed the Mayom Primary Health Program, Munuki Water and Sanitation Project. It also financed women development activities and gave small loans to community projects.

The Norwegian Church Aid concentrated its activities in the East Bank, in the former districts of Kapoeta and Torit. The NCA undertook agricultural programs, cooperatives, health and primary education, engineering project for roads and buildings, village polytechnics that developed and applied appropriate technology, and rural drinking water supply. The NCA also undertook a relief operations project whose function included food for work during periods of drought.

The counties will provide local inputs for their projects while the NGOs will help with imported building materials and schools supplies in the first two to three years of peace. Given the sparse population in many rural areas, most rural primary schools will have to be broken up into Lower and Upper Primary as it will be uneconomical to have every school run from grade one to eight. On the other hand, children in Upper Primary cannot walk to distant schools for an average of ten miles per day for five days every week. Hence, the county authorities will need a lot of assistance for them to be able to provide functional education.

The Bank of Southern Sudan will have to extend credit for crop purchases during harvest periods. The Bank of Sudan has been extending such credit to irrigation schemes. In the past Southern peasants had responded favorably to government campaigns for increased crop production. However, the crops were either not purchased, or at best bought on credit with the payments effected months later. This discouraged further peasant responses to

increased production for the market⁸⁷. With no financial infrastructure, the Bank of Southern Sudan will have to directly shoulder this responsibility until financial institutions and the cooperative movement are developed. Importation of lorries/trucks to be sold to cooperatives and individuals in all counties will ease the constraints on crop marketing. Bicycle importation and eventual domestic assembling will give the peasants flexibility in marketing their produce as they can haul them to alternative markets; consequently, enhancing their bargaining power with the various traders and/or transporters

9.1. Fiscal Decentralization

The local authorities will need considerable transfers of resources from the Government of Southern Sudan, given their very narrow tax bases, especially in the early years of peace. Their capacities to generate their own revenues will grow as rural development gains momentum.

Consequently, the Government of Southern Sudan will have to allocate a percentage of its oil revenue to the counties to undertake their various activities especially primary education, health care, drinking water, rural infrastructure, etc. Some equalization formula will have to be agreed on as some states/counties will be richer than others. For example, the oil producing states/counties will probably begin with more resources than their absorptive capacities. Counties with plenty of timber will also have some revenue, as do some counties that have been relatively stable and development activities have been taking place during the war. Will all counties need transfers from the Government of Southern Sudan, or will some or all contribute to a distributable pool to be shared by all counties? The contribution to the pool could be based on ability, while the receipts from the pool should be based on need.⁸

Either the county governments directly, or the Government of Southern Sudan should impose a petrol consumption tax for use in the counties for social services and county road maintenance. To minimize smuggling of cheaper oil from Southern Sudan to its non-oil producing neighbors, the pump price of oil in Southern Sudan should be equal to that in its neighboring countries. The differential between the pump price and the cost of production should constitute the petrol tax. These funds should be spent in the counties on education,

⁷ The problem of financing crop marketing has frustrated small farmers in many African countries. The private commercial banks find financing the peasant sector riskier and unprofitable. They are more interested in financing commerce and large enterprises. In a predominantly peasant economy, the government has to intervene otherwise farm and rural incomes will continue to stagnate and abject poverty persist.

⁸ The Distributable Pool of Revenue concept was introduced in the Nigerian Federation and in the East African Community. While it did not resolve the problems of unequal revenues resulting from unequal development, it did mitigate the problems until other solutions were sought

health, drinking water, and road maintenance to give the citizens incentives to prevent oil from being smuggled.

The County Government, in cooperation with the Payam and Boma administrations, should rely more on poll tax than on taxing agricultural production for their own generated revenues. The rate of poll tax can be graduated according to wealth. The local authorities can easily rank their citizens by wealth; and hence impose a fair poll tax system. Taxing peasants on specific commodities produced will discourage efforts at increasing production. The proceeds of poll tax will have to be spent on services in the county.

10. Scenarios for Public Service and Economic Management

For effective management of the economy and speedy attainment of the MDGs, the establishment of an efficient public administration with sufficient capability for resource management is imperative. Unfortunately for Southern Sudan, the entire public service is being built virtually from scratch at all levels. A lot of work is needed in recruitment, definition of responsibilities, and training; and enlarging the pool through the development of education. The lack of technical staff is a major constraint. The range of needs for training is large, but there are no Southern training facilities.⁹

The Government of Southern Sudan (GOSS), as the central authority, should have an efficient and broad-minded personnel so as to effectively direct the territory to its desired goals. The GOSS should have the capability to formulate broad policy framework and set an example for public sector management and leadership for the whole South. There is need for the clarification of the roles of the various tiers of government.

The local government should be able to play its role in the delivery of services and implementing development programs. In the early years of peace, the local government will play a crucial role in the resettlement of the internally displaced persons (IDPs), refugees, and ex-combatants. Hence, there is urgent need to build the capacities of local government to coordinate, oversee, negotiate, and assess the myriad of programs at the grass root level, and to systematically link grass root activities to the larger state structures. The local government should be able to integrate programs and services at the local level instead of by ministry.

⁹ Hopefully the three Southern universities in Khartoum will soon be relocated to the South; and their intakes and range of courses increased correspondingly to the needs of the South. Short in-service courses as well as evening classes for those working during the day should be introduced.

The Civil Authority of New Sudan (CANS) created by the SPLM in the mid-1990s has not yet been firmly established (SPLM, 2000). Although many administrators have been trained, there is still lack of technical staff, finance, office buildings, furniture, means of transport and communications. There is also an urgent need to develop a relatively simple basic management and financial systems at the county level. During the war, NGOs have provided most of the services, especially education, health, and water, at the local level. In the immediate future, NGOs will continue and expand their activities. There is need for the NGOs and the county governments to coordinate their resources and efforts.

There is an urgent need to establish a sound public financial management system to ensure accountability for the use of public funds. Currently, there are no systematic estimates of revenues and expenditures. Various ministries and department collect their own revenues without going to the Ministry of Finance (JAM III: 30-31). Only customs receipts from Yei are centrally reported. No expenditure reports are made. The accounting system is rudimentary and financial control is weak. There is no auditing of accounts. Given the absence of an established banking system, there is no efficient system for financial transfers and making payments at various locations.

There is also an urgent need for establishing a procurement system given the massive procurement challenges in delivering humanitarian and reconstruction needs and materials. In the short-run, procurement activities will be centrally managed, but even this needs efficient communication systems. The present constraints include lack of communications (even a postal system), physical infrastructure, and limited media for advertising, lack of local suppliers, and supporting regulatory instruments such as customs and banking.

Without establishing an efficient public financial system, the danger of corruption is increased. This is particularly so when huge sums of money will be handled by highly placed civil servants. Oil revenue, foreign aid, and private investment come via few civil servants. Without a system of accountability in place, large sums from these sources may end in the pockets of individuals instead of in the public purse. Thus, it is a challenge for the GOSS to ensure that any available funds are translated into an equitable and transparently delivered peace dividend, rapid economic development and progress in poverty eradication. This is critical for the peace to be sustained.

The plan of the GOSS is that by 2011 the full range of policies, systems, and institutional structures will be in place at all levels of government. By then the public service will be in an effective position in advising government on policy and program management and ensuring

the delivery of services to the general population. These systems will be established between 2005 and 2007, and consolidated from 2008 to 2011 (JAM III: 34-35).

11. Concluding Remarks

With the appropriate strategies and policies much can be achieved in transforming Southern Sudan from a primarily subsistence to a monetized economy. Whether poverty will be reduced markedly, within the next 10 to 15 years, depends on both the amount and pattern of investment. Since over 95 percent of the population can be assumed to be living below the poverty line, any development policy should be aimed at uplifting virtually everybody. Relief should be extended to all the needy. However, more attention should be paid to the aged, orphans, widows, amputees, wounded, and any other disabled persons.

As for growth and development, the attainment of the various goals and objectives should be viewed in the context of the initial conditions from which Southern Sudan is beginning. Over-ambitious goals and wild expectations might lead to unnecessary frustrations and misplaced blames, generating new conflicts. Southern Sudanese should aim at continuously improving their lot rather than catching up with others who had laid the foundation for development since the colonial times. Southern Sudan is inheriting virtually nothing. It is beginning from almost zero.

After over two decades of war, much of whatever physical and institutional infrastructure of Southern Sudan has been destroyed. Most of the organizational structures and institutions are at an embryonic state and consequently are not yet very effective. The pool of educated, trained, or experienced Southerners available to assume most responsibilities of government and administration is very small. This is particularly so at the levels of state and county governments. They have limited staff and revenues. The establishment of the County Development Committees is a positive step towards grassroots participation in development and democratization. However, to discharge their responsibilities effectively, they need trained human resources and funds. Hence, there is need to strengthen the administrative and financial management skills of the various levels of government. This raises the question of the appropriate number of the levels of government.

Southern Sudanese will have to seriously debate whether they need both state and county governments at present, given their meager educated, trained, and experienced human resources; and limited finances. While the arguments for states is mainly for political balance of power with the Government of Southern Sudan, the county government is closer to the

grassroots; and is a more effective instrument of democratization and development. The county administration, working together with the payam and boma authorities, constitutes the local government, with the county administration providing the technical capacity. The three levels of government working together, within a smaller geographical area, are essential for bringing service provision and decision-making closer to the beneficiaries so that needs and priorities can be better identified and defined. Being closer to the beneficiaries, the local government (county, payam, and boma), has an informational advantage over the state government. It can make the voice of the grassroots heard. Moreover, having many educated elites dispersed all over the territory as county authorities will enhance the bargaining power of the grassroots as they will have common interests by sharing social services, transportation, and communications services with the masses. Consequently, better schools, health facilities, water supply, and transportation, and communications services will be available in the countryside; instead of concentration in few state capitals.

Overall, to reduce poverty and initiate sustainable economic growth and development, the establishment of an effective administrative structure and staffing has to be weighted carefully. Trade-offs between political factors, effective grassroots participation, availability of human and financial resources, among other factors, have to be judiciously balanced.

Southern Sudanese policy makers should not be too much concerned with meeting certain international standards within certain time periods given their initial conditions. What is important for the South is to initiate positive changes and being able to continuously improve on those changes. Concern should not be with catching up; but with making continuous improvement. Good governance, efficiency, inclusiveness, transparency, accountability, and being seen to be doing their best, under the circumstances, will mobilize popular support and effort, and sustained peace and security. Continuous improvement and the sustainability of peace and security will determine the long-term marked reduction in poverty and sustained development. The surest way to raise living conditions in Southern Sudan and to lay a firm foundation for sustained development is to focus on the peasant and the rural sector. Any strategy short of this will be mere lip-service.¹⁰

¹⁰ There is a general feeling among Southern Sudanese that the Wealth Sharing Agreement is unfair to the South as the only things shared between the North and the South are the oil and non-oil revenues of the South. The South does not share in any revenue emanating from the North

References

- Ali Abdel Gadir Ali, (2004). "On Achieving the National and Sub-National Poverty Targets for the Sudan". Arab Planning Institute, Kuwait.
- Committee on Natural Resources Management and Utilization (CNRMU), (2000). *Technical Report (Second Draft)*, SPLM, New Sudan.
- Deng, Lual A., (2002). "Southern Sudan: A Review of Institutions and Structures of Economic Governance". IDEAS, Yambio, New Sudan
- Guvele, Cesar and Brian D'Siva, (2003). "Revitalizing Markets and Trade in a Transitional Zone: Lessons from USAID Efforts to Promote Economic Rehabilitation in Southern Sudan". USAID, Washington, D.C.
- Howell, Paul, Michael Lock, and Stephen Cobb, (eds.), (1988). *The Jonglei Canal: Impact and Opportunity*. Cambridge University Press.
- Joint Assessment Mission (JAM), (2005). *Framework for Sustained Peace, Development, and Poverty Eradication Vol. I: Synthesis*. Nairobi: Sudan JAM.
- _____, *Vol. II: Cluster Costings and Matrices*. Nairobi: Sudan JAM.
- _____, *Vol. III: Cluster Reports*. Nairobi: Sudan JAM.
- Mefit S. p. A., (1979). *Regional Development Plan, Vol. I Part I: General Report, Third Phase*. Rome.
- Ministry of Agriculture and Natural Resources, (1982). *Report of the Opportunities for Commercial Agricultural Development in Southern Sudan*. Juba.
- Ministry of Finance and Economic Planning, (1977). *The Six-Year Plan of Economic and Social Development, 1977/78-1982/83*. Juba, Sudan.
- Ryle, John and Georgette Gagnon. *Report of an Investigation into Oil Development, Conflict and Displacement in Western Upper Nile, Sudan*. October, 2001.
- Secretariat on Peace in the Sudan (SPS), (2005). *The Comprehensive Peace Agreement between the Government of the Republic of the Sudan and the Sudan People's Liberation Movement/Sudan People's Liberation Army*. Nairobi, Kenya.
- Sudan Peoples Liberation Movement (SPLM), (2000). *Peace Through Development: Perspectives and Prospects in the Sudan*, Political Affairs Commission: Yei, New Sudan.
- World Bank, (2003). *Sudan Stabilization and Reconstruction: Country Memorandum. Vol. I: Main Text*, Washington, D. C.
- _____, *Vol. II: Statistical Appendices*, Washington, D. C.

Yongo-Bure, B., (1989). *Economic Development of the Southern Sudan: An Overview and A strategy*. Bremen: Sudan Economy Research Group

_____, (1992). “The Role of Small-Scale Industry in the Recovery and Development of the Southern Sudan.”. In Martin Doornbos, Lionel Cliffe, Abdel Gharffar M. Ahmed, and John Markakis, (eds.) (1992). *Beyond Conflict in the Horn: Prospects for Peace, Recovery, and Development in Ethiopia, Somalia, and Sudan*, The Hague and London: The Institute of Social Studies and James Curry, pp. 165-171.

_____, (2003). “NGOs and Grassroots Development in Southern Sudan”, *Journal of Development Alternatives and Area Studies, Vol. 22 No. 3 & 4*, pp. 57-78.

_____, (2004a). *Economic Development of Southern Sudan*, (Book Manuscript).

_____, (2004b). “Policy and Financial Implications for Southern Sudan of the Millennium Development Goal of Poverty Reduction”. Kettering University, Flint, Michigan and The World Bank, Washington, D. C.

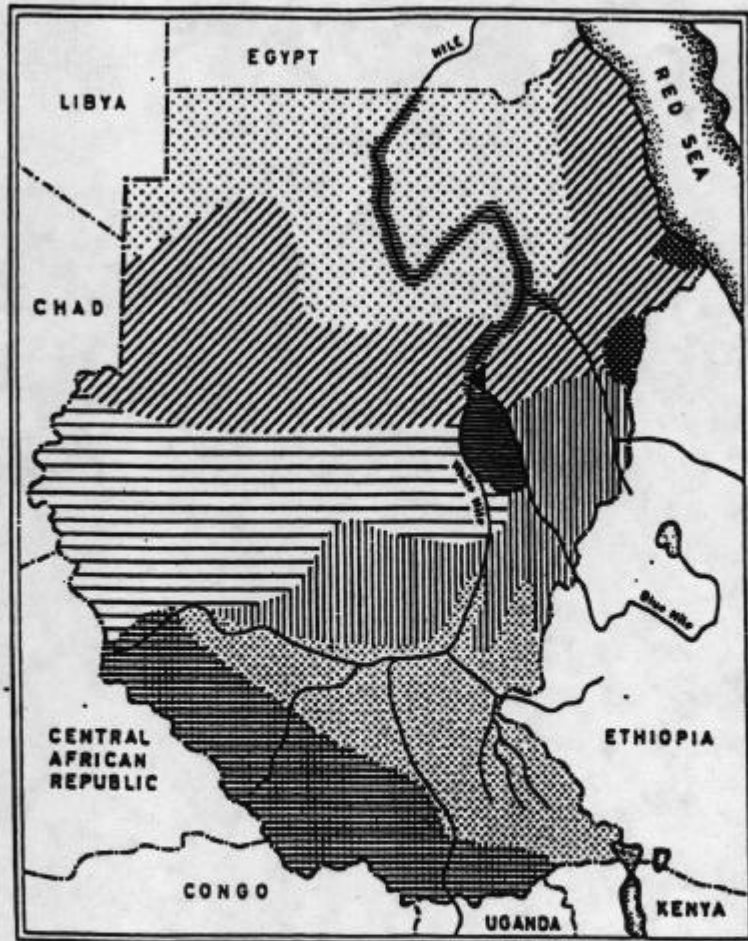
_____, (2005). “Foreign Aid: Lessons of Experience for Southern Sudan”. Department of Liberal Studies, Kettering University, Flint, Michigan.

www.developmentgoals.org

www.gurtong.com

www.usaid.gov

Appendix – Map 1: Natural Regions of Sudan



- | | | | | | |
|--|-------------|--|----------------------|--|---------------------|
| | Desert | | Gezira | | Central clay plains |
| | Semi-Desert | | Gash and Tokar Delta | | Flood plains |
| | Nile Valley | | Qoz-Sand | | Ironstone forest |
| | Khartoum | | Omdurman | | Khartoum-North |

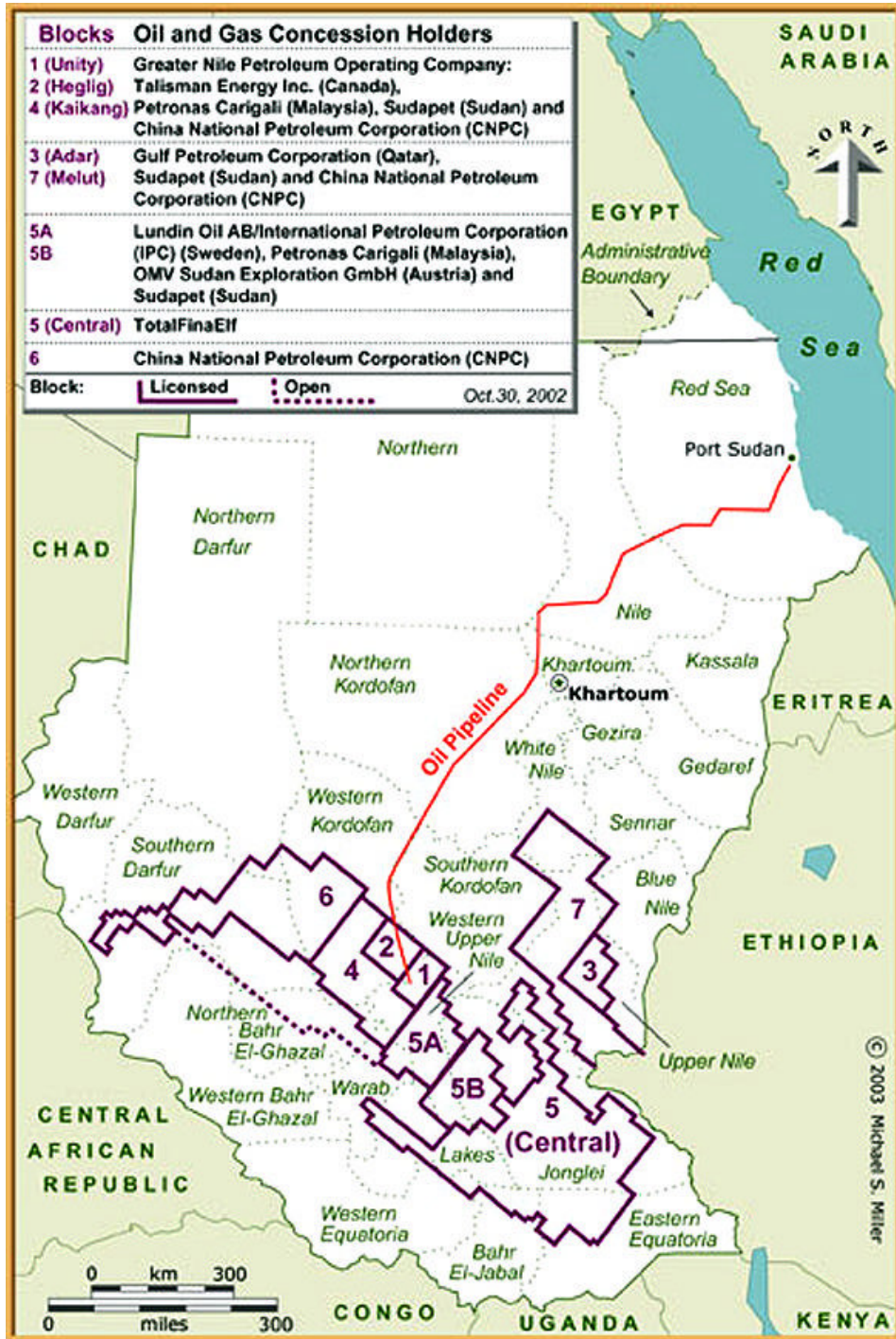
ifo-Institut für Wirtschaftsforschung, München

215/64

Simplified sketch derived from a map of the Sudan Survey Dept. Khartoum (October 1953)

Source: Rolf Gusten, *Problems of Economic Growth and Planning: The Sudan Example*, (Berlin, Springer-Verlag, 1966), p. 6.

Appendix – Map 2: Oil Concessions in Central and Southern Sudan



Source: Human Rights Watch - www.hrw.org/reports/2003/sudan1103/2.htm (accessed 22/08/05)-

Sudan Economy Research Group Discussion Papers

- No. 1 Bestimmungsfaktoren des Arbeitsverhaltens in 'traditionellen' Gesellschaften: Ein Fallbeispiel aus dem Westsudan (die Fur und Baggara). (Determinants of Working Behaviour in 'traditional' societies: A case from Western Sudan). By: Dirk Hansohm, University of Bremen.
November 1984
- No. 2 Handwerk im Sudan - Technische und Sozioökonomische Aspekte. (Non-factory Small Industry In Sudan: Technical and Socio-economic Aspects). By: Peter Oesterdiekhoff, University of Bremen.
December 1984
- No. 3 East-South and South-South Economic Cooperation of the Democratic Republic of the Sudan. By: Dirk Hansohm and Karl Wohlmuth, University of Bremen.
January 1985
- No. 4 The Limited Success of IMF / World Bank Policies in Sudan. By: Dirk Hansohm, University of Bremen.
February 1985
- No. 5 Agroindustrielle Großprojekte und Landbevölkerung in Sudan (Agroindustrial Large-scale projects and peasant population in Sudan). By Angela König, Bremen.
March 1985
- No. 6 A New Approach to Agricultural Development in Southern Darfur - Elements of an Evaluation of the Jebel Marra Rural Development Project. By: Dirk Hansohm, University of Bremen.
March 1985
- No. 7 Promotion of Rural Handicrafts as a Means of Structural Adjustment in Sudan. With Special Reference to Darfur Region. By: Dirk Hansohm and Karl Wohlmuth, University of Bremen.
December 1985
- No. 8 Sudan: A Case for Structural Adjustment Policies. By: Karl Wohlmuth and Dirk Hansohm, University of Bremen.
February 1986
- No. 9 Foreign Private Direct Investment and economic Planning in the Sudan. By: Ahmed A. Ahmed, University of Khartoum.
December 1986
- No. 10 Sudan's National Policies on Agriculture. By: Karl Wohlmuth, University of Bremen.
June 1987

- No. 11 Sudan's Small Industry. Development Structures, Failures and Perspectives. By: Dirk Hansohm and Karl Wohlmuth, University of Bremen.
December 1987
- No. 12 Landwirtschaftliche Vermarktung und Marktpolitik. Strukturen, Defizite und politische Optionen im agrarischen Marketing von Regenfeldbau und Viehwirtschaft (Agricultural Marketing and Market Policy). By: Peter Oesterdiekhoff, University of Bremen.
June 1988
- No. 13 Problems Arresting Private Sector Development in Western Sudan. By: Mohamed, E. S. and Fadlalla, B. O. M., University of Khartoum.
March 1989.
- No. 14 The Potential of Small Industries in Sudan. Case Study of Nyala. By: Dirk Hansohm, University of Bremen.
April 1989.
- No. 15 Problems in Evaluating the Impact of Structural Adjustment Policies in Sudan: The Case of Agriculture. By: Badr-el-din A. Ibrahim, University of Khartoum.
June 1989
- No. 16 Economic Development of the Southern Sudan: An Overview and a Strategy. By: Yengo-Buro, B., University of Khartoum.
September 1989
- No. 17 An Evaluation of the Empirical Studies on Handicrafts and Small Scale Industrial Activities in Sudan. By: Badr-el-Din A. Ibrahim.
September 1989
- No. 18 Impacts of Male Outmigration On Women: Case Study of Kutum / Northern Darfur (Sudan). By: Grawert, E., University of Bremen.
April 1990
- No. 19 The Nationalities Question and National Unity of Disintegration in Sudan. By: Yongo-Buro, B., University of Khartoum.
September 1990.
- No. 20 Towards Alternative Economic Policies For Sudan. By: Taha, E. A.; Ahmed, Y. A.; Mohamed, E. A. M.; Omer M. A.; Mohammed, S. I. and Omer, A. O., Ministry of Finance and Economic Planning, Khartoum, Sudan.
October, 1990.
- No. 21 Producer incentives Policy and Structural Rigidities in Traditional Agriculture of Sudan. By: Siddig, E. F. A., Ministry of Finance and Economic Planning, Khartoum, Sudan.
December 1990.

- No. 22 The Role of Small Scale Rural Industries in the Recovery and Development of the Southern Sudan. By: Yongo-Buro, B., Institute of African and Asian Studies, University of Khartoum.
April 1991
- No. 23 Small industry in Sudan: Distinctive Advantages and Growth Constraints. By: Dirk Hansohm, University of Bremen.
January 1992.
- No. 24 Kenana: A Large-Scale Project in the Sudan. An Economic Evaluation. By: Guma, Y. T., University of Gezira, Wad Medani, Sudan.
February 1992.
- No. 25 For whom is the Rural Economy Resilient? Initial Effects of Drought in Western Sudan. By: Leslie Gray, Department of Agronomy; Davis, L. and Kevane, M., Department of Economics, University of California, Berkeley, California, USA.
March 1992.
- No. 26 Alternative Economic Strategies for the Sudan. By: Karl Wohlmuth, University of Bremen, Germany.
December 1992.
- No. 27 Auswahlbibliographie zum Thema Frauen im Sudan. Literatur seit 1980 (A Bibliography on Women in Sudan: 1980-1992). By: Annette Weber, Berlin, Germany.
May 1993
- No. 28 Die Wirtschaftspolitik des Bashir-Regimes seit 1989 (The Politics of Economy of the Bashir Regime since 1989). By: Karl Wohlmuth, University of Bremen, Germany.
September 1993.
- No. 29 The Sudanese Trade Unions and the State, their Role in the Democratic Economic Reform and Development. By: Murtada, M. E. M., African Regional Labour Administration Centre, Harare, Zimbabwe.
October 1993.
- No. 30 A Critical Review of the Sudanese Strategic Report, 1997: Some Questions to Real Progress. By: S. Chandulal, Sudan Economy Research Group, University of Bremen, Germany.
January 1999.
- No. 31 Are Women Less Entrepreneurial? A study of female micro-entrepreneurs in Khartoum, Sudan. By: Sunita Pitamber, Sudan Economy Research Group, University of Bremen, Germany and Ahfad University for Women, Omdurman, Sudan.
April 1999.

- No. 32 Some Reflections on Economic Liberalization in the Sudan. By: Isaac Bior Deng, Sudan Economy Research Group, University of Bremen, Germany and Ministry of Finance, Khartoum, Sudan.
May 2000.
- No. 33 The Role of Entrepreneurship in Realizing Sustainable Human Development in Africa. The Case of the Sudan. By: Sunita Pitamber, Sudan Economy Research Group, University of Bremen, Germany and Ahfad University for Women, Omdurman, Sudan.
January 2001.
- No. 34 The Role of Home Based Enterprises (HBE's) in Alleviating Sudanese Urban Poverty and the Effectiveness of Policies and Programmes to Promote HBE's. By: Badr-El-Din A. Ibrahim, Sudan Economic Research Group, University of Bremen, Germany and Economic Advisor to the Undersecretary for financial Affairs, Ministry of Finance, Muscat, Sultanate of Oman. December 2002.
- No. 35 Poverty Alleviation via Islamic Banking Finance to Micro-Enterprises (MEs) in Sudan: Some lessons for poor countries. By: Badr-El-Din A. Ibrahim, Sudan Economic Research Group, University of Bremen, Germany and Economic Advisor to the Undersecretary for financial Affairs, Ministry of Finance, Muscat, Sultanate of Oman. March 2003.
- No. 36 Peace Dividend and the Millennium Development Goals in Southern Sudan. By: Yongo Bure, Benaiah, Kettering University, Flint Michigan, USA.
August 2005.