

# *Revitalizing Sudan's Non-Oil Exports:*

*A Diagnostic Trade Integration Study  
(DTIS) Prepared for the Integrated Frame-  
work Program*



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**ABBREVIATIONS AND ACRONYMS**

ACP	Africa, Caribbean and Pacific	MoFT	Ministry of Foreign Trade
ASYCUDA	Automated System for Customs Data	NETREP	National Emergency Transportation Rehabilitation Project
CGA	Customs General Administration	NPL	Non-performing Loan
COMESA	Common Market of Eastern and Southern Africa	OECD	Organization for Economic Cooperation and Development
CPA	Comprehensive Peace Agreement	OIE	World Organization for Animal Health
DRC	Democratic Republic of Congo	POL	Petroleum, Oil and Lubricant
DTIS	Diagnostic Trade Integration Study	SHHS	Sudan Household Health Survey
EBA	Everything But Arms Initiative	SPC	Sudan Ports Corporation
EPA	Economic Partnership Agreement	SPLA/M	Sudan People's Liberation Army/Movement
EPZ	Export Processing Zone	SPS	Sanitary and Phytosanitary Standard
EU	European Union	SRC	Sudan Rail Corporation
FDI	Foreign Direct Investment	STP	Sudan Trade Point
FIAS	Foreign Investment Advisory Service	TBL	Through Bill of Ladings
FOB	Freight on Board	TBT	Technical Barriers to Trade
FTA	Free Trade Agreement	TEU	Twenty-foot Equivalent Unit
GAFTA	Greater Arab Free Trade Area	TIC	Trade Information Center
GATT	General Agreement on Tariffs and Trade	TIR	Transport International Routier
GoNU	Government of National Unity	TPB	Trade Promotion Body
GoSS	Government of Southern Sudan	TRQ	Tariff Rate Quota
GSP	Generalized System of Preference	TTF	Trade and Transport Facilitation
IF	Integrated Framework	UAE	United Arab Emirates
IMF	International Monetary Fund	UNCTAD	United Nations Conference on Trade and Development
ITC	International Trade Center	UNIDO	United Nations Industrial Development Organization
LDC	Least Developed Country	UNDP	United Nations Development Program
MFN	Most Favored Nation	VAT	Value Added Tax
MOCI	Ministry of Commerce and Industry (GoSS)	WTO	World Trade Organization

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## PREFACE

This Sudan Diagnostic Trade Integration Study (DTIS) has been prepared at the request of the Commission for World Trade Organization Affairs of the Government of Sudan as part of the Integrated Framework for Trade-Related Technical Assistance to Least Developed Countries (IF). The IF is a multi-agency, multi-donor program established by WTO trade ministers in 1996 to promote the integration of least developed countries (LDCs) into the global economy. The participating agencies are the International Monetary Fund (IMF), the International Trade Center (ITC), United Nations Conference on Trade and Development (UNCTAD), United Nations Development Program (UNDP), the World Bank and the World Trade Organization (WTO).

The IF is a country-driven process that, first and foremost, promotes the integration of trade policy into the overall national development strategies. The IF is a process for coordinating the delivery of trade-related technical assistance by an LDC's development partners in response to the needs identified by the LDCs. The IF supports LDCs in becoming full participants in the world economy and the multilateral trading system.

Conducting the DTIS is the initial stage of an LDC's participation in the IF. The DTIS provides the analytical foundation for policy recommendations and trade-related technical assistance to promote a country's integration into the multilateral trading system. It assesses the overall competitiveness of a country's economy, identifies sectors of greatest export potential, outlines constraints to trade, and presents an action matrix of priorities for technical assistance and policy reforms.

Upon completion of the DTIS, the government convenes a national workshop to discuss and validate its findings. All of the relevant national actors are expected to participate, notably government officials representing all ministries involved in the preparation of the DTIS, stakeholders from the private sector, and representatives of civil society. IF agencies and the donor community are also present during the workshop. Sudan held its national validation workshop October 27–28, 2008, in Khartoum. A day-long seminar was held in Juba prior to the national workshop to facilitate greater participation by stakeholders in Southern Sudan in the process of setting Sudan's priorities for the IF. The final action matrix that was developed at the national workshop is included in Chapter 5 of the DTIS.

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The Sudan DTIS was prepared in collaboration with the Government of Sudan and in consultation with ministries of the Government of National Unity (GoNU) and the Government of Southern Sudan (GoSS), private sector organizations, international agencies, donors, and other stakeholders. As the Sudan IF Focal Point, Dr. Mohamed Ali Dingle of the Commission for WTO Affairs guided the DTIS team and coordinated three DTIS missions during 2006 and 2007. A team of Sudanese and international experts gathered data on a range of trade-related issues and prepared background reports, which were submitted to the Commission for WTO Affairs. Preliminary results were presented in January 2007 to the National IF Steering Committee and to a seminar of GoSS officials organized by the Ministry of Commerce, Trade and Supply in Juba.

Philip Schuler led the DTIS team under the supervision of Senior Country Economist Bill Battaile, Lead Economists Jeni Klugman and Deepak Mishra, and Sector Manager Kathie Krumm. Team members and their areas of specialization included the following: Gadir Abdelsalih (foreign direct investment), Rahimaisa Abdula (macroeconomics), Varga Azad (trade statistics), William Crandall (customs), Mañuel de la Rocha (manufacturing, trade promotion institutions), Hamid Faki (agriculture), Valeriano Garcia (macroeconomics), Donald Mitchell (sugar), El Tahir Mohamed Nur (poverty and cotton subsidies), Vijay Raman (transportation and trade logistics), Mehdi Shafaeddin (trade policy, WTO accession), Gregory Sullivan (standards), Allaeddin Twebti (services), Jack van Holst Pellekaan (agriculture), Marial Awou Yol (exchange rate appreciation). Philip Schuler and Bill Battaile drafted the DTIS based on the team's background reports. Magdi Amin, Ibrahim Elbadawi, Nina Budina, and Fahrettin Yagci served as peer reviewers. The IF Executive Secretariat, IMF, ITC, UNCTAD, UNDP, and the WTO submitted useful comments and suggestions on the draft DTIS.

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## EXECUTIVE SUMMARY

### A. REVITALIZING NON-OIL EXPORTS IS RELEVANT FOR NATIONAL PRIORITIES

i. In the early 1960s, Sudan's non-oil exports were roughly one-sixth of gross domestic product; after four decades this ratio has come down to one-fiftieth. Sudan historically enjoyed success in exporting a wide range of products, including cotton, various oilseeds, gum arabic, livestock, and other products whose exports were significant from time to time, such as sorghum and sugar. Many had earned a global reputation for high quality. But over time traditional exports became stagnant, and Sudan lost market share in several key commodities for which it had been a global leader, such as gum arabic and sesame. In addition, exports remain concentrated in a handful of countries: for example, sheep are shipped almost exclusively to Saudi Arabia, cotton to Egypt, and sesame oil to Saudi Arabia and the United Arab Emirates.

ii. Sudan has experienced a revival in its exports, but this is largely due to the export of oil. In 1999, Sudan became one of the newest significant oil producing countries in the world, and it is now the third largest oil producer in Sub-Saharan Africa, behind Nigeria and Angola, with output at almost 500,000 barrels per day in 2007. Exploitation of oil resources has led to large increases in national wealth, but it has also complicated macro-economic management with recent pressures toward internal and external imbalances, as well as a heightened concern for balanced growth in the non-oil sectors which are important for sustainable growth and addressing inequalities. Oil earnings enter the economy predominantly through public finance channels, yielding significant volatility for fiscal policy. The expansion in public sector expenditures has crowded out private credit and stressed the financial sector. On the external side, the current account has deteriorated since the oil boom and the real exchange rate has appreciated significantly. The latter has added to competitiveness concerns for non-oil exports, on top of the more fundamental supply-side constraints to production.

iii. Revitalizing non-oil exports can play an important role in achieving Sudan's tremendous potential for international integration, sustaining and broad-based economic development and a promoting widely-shared improvements in living standards. The trade agenda can thus contribute to achieving the vision of national integration and gains for marginalized areas. Oil has driven the recent surge in real economic growth, but to sustain growth and provide broader income opportunities, Sudan will need to pursue a strategy of diversifying its sources of growth, including enhancing its non-oil exports. Thus the trade agenda should be further integrated into national strategies of development and poverty reduction, including near term focus on revitalizing traditional agricultural exports that have provided export earnings over the past half century and finding new markets for old products. Recent peace and security must be leveraged to (re)establish international commercial linkages that were inhibited during wartime. Opportunities in the South appear especially promising. In the long run, Sudan must move beyond its tra-

ditional exports—moving up the value chain (e.g., from live animals to meat) and developing new export products. Sudan cannot realize its economic growth and poverty reduction objectives if its producers focus solely on the domestic economy. Although Sudan is large by regional standards, its economy is small in global terms. Producers must look to the world economy, not only for buyers of their outputs, but also for investment partners and suppliers of needed inputs.

## **B. MAJOR CONSTRAINTS ARE PRIMARILY, BUT NOT EXCLUSIVELY, INTERNAL**

iv. This diagnostic trade integration study (DTIS) examines internal and external constraints to Sudan's integration into the world economy. The DTIS team finds that the major constraints are primarily, although not exclusively, internal. Sudan's exports face relatively few barriers in foreign markets, with the notable exception of the embargo imposed by the United States. Few countries in the world impose high customs duties on Sudan's principal export, oil. Most-favored nation (MFN) tariffs on Sudan's agricultural exports are generally low, although there are notable exceptions: Korea restricts sesame imports using a tariff rate quota that has a 630 percent tariff on out-of-quota shipments for example. Importing countries' animal health regulations have at times been a binding constraint on exports of live animals.

v. Sudan enjoys preferential access to major industrial markets and is a member of several important regional free trade agreements, such as the Greater Arab Free Trade Area (GAFTA) and the Common Market for Eastern and Southern Africa (COMESA) free trade agreement (FTA). These preferential arrangements have been important means of avoiding high tariffs on sugar, especially in the European Union and Kenya. Otherwise they do not deliver much value to Sudan at present because, in most cases, MFN duties are low on most products that Sudan currently ships to markets where it enjoys preferences. As Sudan succeeds in diversifying into new products, particularly more processed products, however, these preferential arrangements will become more important since many countries increase tariffs with the level of processing: collecting higher duties on leather shoes than on leather, for example, and higher duties on leather than on raw hides and skins.

vi. Sudan's import tariff regime is among the world's most restrictive. The average tariff rate is 20 percent, which although much less protectionist than what existed before the reforms of the 1990s, is well above levels imposed by most other developing countries. This tariff regime creates disincentives to exporting. High tariffs raise domestic prices above world prices. This encourages producers to sell locally instead of exporting, discourages them from importing inputs that could raise productivity, and limits their ability to integrate into global supply chains. Measures that some countries have used to overcome the anti-export bias inherent in high import tariffs, such as export processing zones and duty drawbacks, have not been successful in Sudan. In addition, potential exporters are hampered by a number of taxes, charges, and fees—some imposed solely on international trade while others are levied on goods as they move through the domestic economy—that further undermine the competitiveness of Sudan's exports in world markets.

vii. At the most fundamental level, Sudan's ability to compete in world markets is constrained by low productivity. Yields in agriculture and animal husbandry are low compared to other countries. Southern Sudan especially suffers from low productivity in agriculture, and inadequate infrastructure discourages the expansion of agricultural production. In many cases they have declined in recent years, partially in response to shrinking resources devoted to agricultural research and extension. Most manufacturing industries are saddled with outdated capital stock and excess capacity. Manufacturers report that shortages of skilled labor further undermine their productivity. Two standard sources of capital for investing in new technologies to raise productivity—foreign direct investment and credit from local banks—have flowed overwhelmingly to the oil production and to sectors stimulated by oil revenues, such as construction and retail trade.

viii. Sudan's export competitiveness is further undermined by high transport costs and recent exchange rate appreciation. Charges at Port Sudan are the highest in the region. Shipments are frequently delayed at the port for 5–6 weeks before being released, which further increases costs. The relative absence of international trade logistics firms limits the country's access to efficient global logistics services, thereby making it hard for Sudanese firms to take full advantage of the containerized shipping revolution and to integrate into global supply chains. Long marketing chains increase the cost of getting goods to Port Sudan. Sudan's internal transportation infrastructure is in the process of being rehabilitated (in the North) and constructed (in the South). These improvements are essential for connecting rural producers to world markets. Exchange rate appreciation has also hurt Sudanese exporters in recent years. The real exchange rate appreciated by 40 percent in 2005–2006, directly affecting the sales price of exports and profitability to producers. Evidence from value chain analysis shows the nominal exchange rate changes are significant for key agricultural export products, and reinforces the need for exchange rate policy to take into account competitiveness effects.

ix. The national government and the Government of Southern Sudan (GoSS) have taken steps recently to bring all customs operations under the administration of the national customs department. Customs operations in the North are conducted efficiently and professionally, although procedures could be more streamlined and make more use of tools for risk-based selection. Significant investments in staffing, training, and equipping customs administration in the South will be needed to raise standards to national levels and ensure that customs operations are integrated throughout the country.

x. The availability of high-quality backbone services—e.g., financial services and telecommunications services—at world market prices is critical to competing effectively in world markets. Sudan enjoys these in certain areas or is undertaking efforts to develop them. Sudan has opened the provision of backbone services to private sector participation and eliminated most restrictions on foreign investment in banking, telecommunications, and power. This liberal regime has facilitated the rapid expansion of telecommunications connectivity in the North, although regulatory uncertainty has deterred a similar expansion in the South. Foreign investors have brought much-needed financing to the banking sector. Since little of this investment is by international banks, Sudan has not benefited from the technology transfer and access to global financial services that usually accompany partnerships with international banks.

## **C. MAKING TRADE A LEVER FOR ECONOMIC GROWTH AND POVERTY REDUCTION**

xi. Sudan enjoys the preconditions for a strategy of boosting its flagging non-oil exports, which have declined in value terms each year since its peak in 2004 of \$677 million to an estimated \$460 million in 2007. There has been relative macroeconomic stability in recent years, and the reform program initiated in the early 1990s eliminated most constraints on international trade and investment. The country has a history of success in exporting a range of agricultural commodities. With some notable exceptions, Sudan currently faces relatively few external barriers to integrating into the world economy. This DTIS argues that the main priorities for implementing a strategy of boosting non-oil exports are to raise productivity, reduce trade costs, rationalize the incentive regime, and improve trade institutions. The trade agenda must be integrated into national strategies for development and poverty reduction, including the on-going formulation of the country's Poverty Reduction Strategy paper. Chapter 5 presents an action matrix that identifies specific policy reforms and technical assistance needs related to this trade agenda.

### **1. Raise productivity**

xii. Raising incomes of the poor, particular those in rural areas, requires first and foremost increasing productivity and expanding production. Significant investments in agricultural research and extension are needed to raise yields in agriculture. Inputs, technologies, and practices must be disseminated to farmers and pastoralists. Improved vocational training would help to ease shortages of skilled labor in both rural and urban areas. Establishing or upgrading training centers for leather processing, textiles, meat processing, and other manufacturing industries would facilitate the adoption of new manufacturing technologies. Joint ventures with multinational firms are essential for introducing new technologies and establishing closer linkages with foreign buyers and sellers.

### **2. Reduce trade costs**

xiii. Reducing the costs of bringing goods to world markets is a second priority area. Creating a one-stop shop for import clearance procedures would help reduce delays at Port Sudan. Implementing customs modernization, especially the adoption of risk-based selection, and integrating customs administration throughout the country would both reduce costs faced by traders and help ensure efficient collection of non-oil revenues. Joint efforts by the government, private sector, and international freight-forwarding organizations would give traders access to global logistics services. Improving rural roads is a prerequisite for enabling rural poor to transport goods to urban areas and thereby give them the incentive to produce a marketable surplus. The needs are especially acute in the South.

### **3. Rationalize the incentive regime**

xiv. Rationalizing Sudan's incentive regime—import tariffs, taxes, fees, and provisions for overcoming them—would support a strategy of boosting non-oil exports by dampening the bias against exports and reducing the level and variability of costs of doing business. Based on discussions with producers and exporters, there would be signifi-

cant benefits from simplifying the tax regime, harmonizing taxes and fees collected by different government agencies (and different levels of government), and limiting ad hoc interventions. Given the link to state and localities' ability to raise own revenues, rationalization of taxes and fees needs to be undertaken within the larger context of fiscal decentralization and the legal framework of revenue and expenditure assignments. There is also a need to reduce the tariff burden on inputs.

#### **4. Improve trade institutions**

xv. Improvements in trade institutions are needed to convert measures to raise productivity, reduce trade costs, and rationalize the incentive regime into a coherent trade strategy that can boost exports and reduce poverty. Building effective trade promotion institutions in the South and rebuilding them in the North would help potential exporters find new markets for existing exports as well as provide market intelligence needed for firms to develop new export products. Donor support would help to build government capacity to develop and implement trade policy. Although trade policy—in the traditional sense of setting customs duties and negotiating international trade agreements—is the responsibility of the national government, the GoSS needs to have the capacity to participate in the formulation of Sudan's trade policies so that they reflect the interests of the country as a whole.

xvi. On a more fundamental level, there is an urgent need to reduce fragmentation in the process by which Sudan develops and implements policies that affect trade, policies that go beyond trade policy in the traditional sense. This will require better coordination within the national government, between the national government and the GoSS, and between all levels of government and the private sector. More effective coordination mechanisms will help the country take full advantage of opportunities offered by membership in the World Trade Organization and other international trade agreements. These mechanisms will also enable the country to take full advantage of the country's wealth of natural and human resources.

# 1. SOCIOECONOMIC SETTING

## IMPRESSIVE REAL GROWTH BUT EMERGING VULNERABILITIES

1.1 Emerging from nearly four decades of civil war, Sudan has tremendous potential for international integration, economic development and widely-shared improvement in living standards. The 2005 Comprehensive Peace Agreement (CPA) presents a historic window of opportunity to create a peaceful and prosperous Sudan.<sup>1</sup> The CPA established an Interim Period of autonomous rule for the South (2005–2011), in which to implement an agreed framework of wealth and power sharing to address the root cause of conflict in Sudan—the country’s legacy of inequality between center and periphery. The Interim National Constitution envisions equitable and transparent oil revenue sharing and fiscal decentralization as key aspects of a unified and peaceful Sudan, including improved conditions in the resource-rich South.

1.2 **Now half-way through the Interim Period, both sides have seen significant benefits from the peace though significant political economy risks remain.** While national income has increased dramatically, the post-conflict environment continues to be characterized by internal and external tensions. Internally, the SPLM suspended its participation in the Government of National Unity (GoNU) for two and one-half months in late 2007, citing a lack of implementation of key aspects of the CPA by the ruling National Congress Party. Externally, Sudan remains at the center of intense international pressure over the civilian impact of continued conflict in the Darfur region of the country. These issues are reminders that the political economy context in Sudan will remain complex and uncertain, even for a post-conflict country.

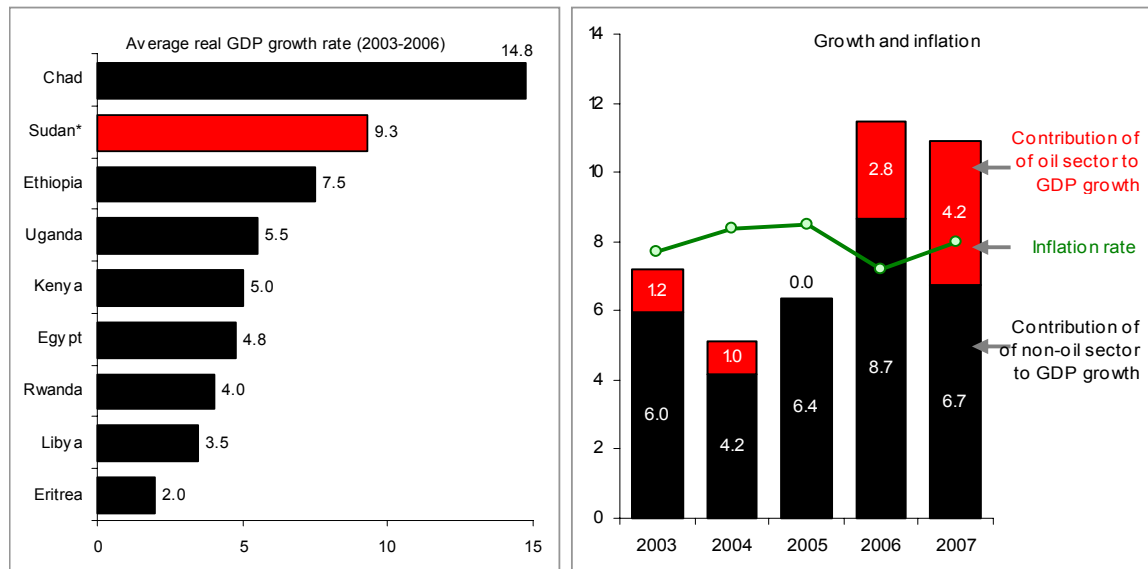
1.3 **Real economic activity is currently high, but the lack of economic diversification raises concerns over longer terms sources of growth and sustained development.** Real GDP growth averaged about 9 percent during 2005-2007, putting Sudan among the fastest growing economies in the region (Figure 1-1). The oil sector has led recent growth, both in terms of direct value-added to the economy as well as the associated investment boom and boost to services such as transportation and construction. With forecasts pointing to oil sector production peaking in the near term, the economic policy dialogue is turning to the need for balanced growth and strengthening the non-oil sectors which are key for sustainable growth and addressing inequalities.

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<sup>1</sup> The CPA was signed on January 9, 2005, ending hostilities between the Government of Sudan and the Sudan People’s Liberation Movement/Sudan People’s Liberation Army.

1.4 **The structure of the Sudanese economy has shifted over time, from predominantly reliant on agriculture for growth and exports, to its current reliance on the oil sector.** At independence, the structure of the economy was dual with a vast traditional sector based on agriculture and a small modern sector mainly consisting of the transport, communication, real estate and construction services. The contribution of agriculture to the country’s growth diminished over the past decades. Wide fluctuations were observed during the 1980s and 1990s, with episodes of contraction during the time of conflict and drought and resurgence during 1986, 1989, 1992 and 1996 with growth exceeding ten percent. Agriculture nevertheless remains the country’s main driver of employment, especially outside the country’s top urban areas of Khartoum and Port Sudan.

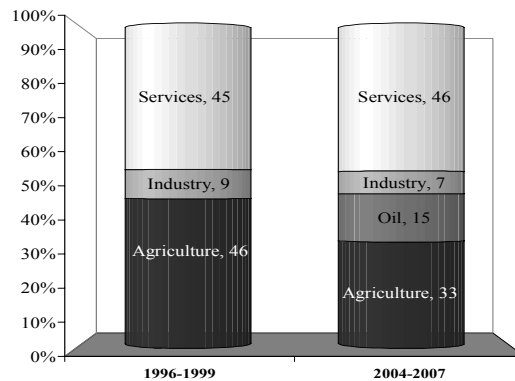
**Figure 1-1. Sudan is a Top Growth Performer in the Region, with Oil Playing a Pivotal Role**



Source: World Development Indicators, IMF/WB Staff estimates.  
 Note (\*): Sudan growth covers 2005–2007.

1.5 **Sudan is one of the newest significant oil producing countries in the world.** Significant production started in 1999, and the country is now the third largest oil producer in Sub-Saharan Africa, behind Nigeria and Angola, with output at about 500,000 barrels per day in 2007. Two main blends of crude oil are currently produced—Nile Blend and Dar Blend—with varying quality between fields. Production forecasts are difficult for Sudan given the lack of detailed information regarding specific major new and ongoing projects, but available data suggests peak production in the next few years before a gradual decline.

**Figure 1-2. Structural Change of the Sudanese Economy**



Source: World Bank staff estimates.

**1.6 The dividends from oil exportation have caused major transformations in the economy, especially in the country's capital.** Figure 1-2 summarizes the recent structural changes. Agriculture's contribution to GDP has declined, and to a lesser extent industry as well. The emergence of the oil sector adds directly to GDP and has induced growth in certain service sectors. Construction services grew by about 10 percent per annum since 1999 and have been the fastest growing sector in recent years, surpassing the growth in the oil industry. Trade, restaurants and hotels have also flourished, mainly in the country's capital, and generated about one fifth of non-oil domestic product during 1996-2006. Notwithstanding these structural shifts, agriculture remains the country's main driver of employment, especially outside the country's top urban areas.

**1.7 Exploitation of oil resources has led the increase in national wealth, but domestic absorption of these large inflows significantly complicates macroeconomic management.** Some signs of Dutch Disease are present, though it is difficult to assess the extent of these characteristics given the country is a relatively new exporter.<sup>2</sup> Appreciation of the nominal effective exchange rate and the sustained increases in the general price levels led to the appreciation of real effective exchange in the recent years. Inflows through higher levels of government spending put additional pressures on the prices of non-traded goods. Prices of housing, water and electricity grew almost twice as fast as the prices of tradable goods specifically food, clothing and consumer goods. The real effective exchange rate appreciated by 40 percent in 2005–2006, which added to the more fundamental structural rigidities and supply-side constraints already faced by non-oil exporters.

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<sup>2</sup> Dutch Disease refers to the experience of the Netherlands in the 1960s, when the economic boom following natural gas discoveries led a decline in manufacturing and real exchange rate appreciation. In his summary of the literature, Corden defines it as a phenomenon where a boom in one export sector, typically a windfall discovery of a new natural resource, draws factors of production from other sectors of the economy and boosts demand for non-tradeables relative to tradeables, which in turn appreciates the real exchange rate. Traditional exports collapse, due both to the internal reallocation of resources and the real exchange rate appreciation. W.M. Corden, "Booming Sector and Dutch Disease Economics: Survey and Consolidation," *Oxford Economic Papers* 36 (November 1984): 360–62.



1.8 Despite the huge export earnings from oil, the current account balance has been in deficit at eight percent of GDP on average during 1999–2005. This is partly induced by increased imports of manufactured, machinery and transport equipments and other commodities. The impact of these expenses in the overall balance of payments is subdued by the influx of foreign direct investment (FDI). In 2004 and 2005, the influx of FDI led to overall surplus in the balance of payments. From annual averages of \$100–200 million prior to 2000, in 2006 net FDI and portfolio inflows were \$3.5 billion, though tailing off to \$3 billion in 2007. The increase in FDI has been encouraged by the liquidity in the Gulf. International reserves are low and falling, from 2.4 months of imports at end 2005 to 1 month at end of 2007, and Sudan’s external debt remains large and arrears constrain access to longer-term development finance.

1.9 **Oil earnings enter the economy predominantly through public finance channels, yielding significant volatility for fiscal policy.** Oil export earnings now support the majority of public finance (55 percent in 2007) and expose fiscal policy to the volatilities of domestic production and international price fluctuations. Significant oil revenue volatility and shortfalls were observed in late 2006 and early 2007 resulting in the highest fiscal deficits since the macro stabilization of the early 1990s—4.3 percent of GDP in 2006 and an estimated 3.1 percent of GDP in 2007, on a cash basis (Figure 1-3). The volatility in revenue has greatly complicated public expenditure management.<sup>3</sup> The monthly volatilities in inflows tend to disrupt capital budgeting most severely, as cash balances are used for immediate recurrent costs. The effects are particularly exaggerated by CPA-related spending pressures and severe for the autonomous Government of Southern Sudan (GoSS), which depends almost exclusively on federal oil revenue transfers to finance expenditures.

1.10 **An Oil Revenue Stabilization Account (ORSA) was established in 2002 to help manage revenue volatility, but is now nearly depleted despite rising production and record world prices.**<sup>4</sup> The account accumulated a significant amount of funds over 2002–2005, equivalent to 1 percent of GDP at end-2005. However, there were substantial draw-downs from the account in late 2006 to finance government expenditures, and by end-December 2006 the account was virtually depleted.<sup>5</sup> The majority of ORSA inflows in 2007 were withdrawn for government spending, so in its current state the ORSA can only provide very limited risk management benefits. A concerted effort is needed to rebuild the account, along with stronger controls and management to ensure it can play a role in longer term oil revenue management.

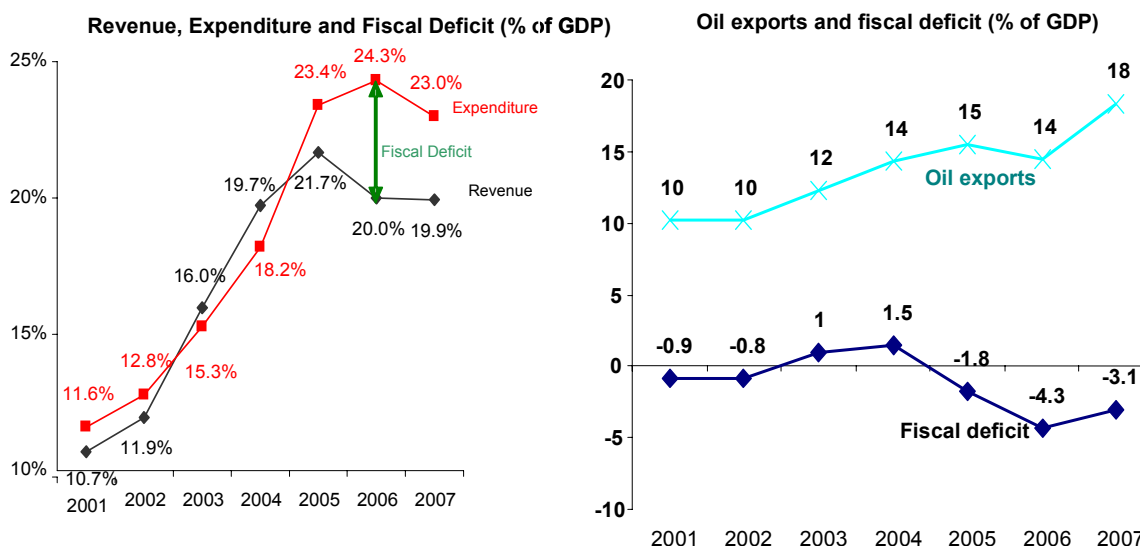
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<sup>3</sup> See Sudan Public Expenditure Review (World Bank 2007) for a more detailed discussion of the recent public expenditure management experience.

<sup>4</sup> The ORSA is a locked sub-account for the GoNU at the Bank of Sudan, controlled by the MoFNE. At the start of the fiscal year, a benchmark production figure and oil price is agreed by the GoNU and GoSS. Any revenues accruing from production or price above the benchmark are deposited in the ORSA. Withdrawals are distributed to both GoNU and GoSS in proportion to their share of total oil revenue.

<sup>5</sup> Under the terms of the agreement on the ORSA, when the GoNU accesses funds from the account to finance expenditures, it must transfer an additional amount to the GoSS in accordance with its share of oil revenue—regardless of whether the GoSS needs the funds at that time.

**Figure 1-3. Sudan's Fiscal Position has Deteriorated, While Oil Earnings Have Grown**



Source: IMF/WB Staff estimates.

**1.11 The expansion in public sector expenditures has crowded out private sector credit and also stressed the financial sector.** Public expenditures doubled in nominal terms between 2004 and 2006, largely to support the recent peace agreements, higher fiscal transfers to sub-national levels of government, and development spending. With the oil revenue shortfalls in 2006 and 2007, the Ministry of Finance and National Economy (MoFNE) sought high levels of financing and absorbed the majority of available domestic credit. Private credit has subsequently slowed considerably, growing by only 16 percent in 2007 compared to 62 and 45 percent in 2005 and 2006, respectively.

**1.12 Financial sector indicators have deteriorated in recent years,** reflecting the influence of the fiscal expansion, the accumulation of government arrears, and the intervention of a large state-owned bank. Although banks' capitalization levels remained above statutory requirements, financial soundness indicators weakened. Since 2004, the ratio of nonperforming loans (NPLs) to assets increased sharply, reaching a level of 22 percent at end-2007 from 6 percent at end-2004. Competition in the financial sector remains limited. The equity and foreign exchange markets are particularly shallow. Microfinance on the other hand is at its nascent stage inefficient, and reforms being undertaken to address weaknesses are likely to take time to take effect. The poor state of the financial sector has a serious implication upon the private sector access to credit. The current ratio of private sector financing to GDP is low relative to comparable countries. Only a small share of the population has access to bank services and enterprises face difficulties in obtaining funding from banks, non-bank financial institutions and microfinance organizations. The lack of private sector access to credit limits their ingenuity to participate in business and other market activities. In the South, access to finance is scarce and even non-existent in some states. Financial services available are scattered across vast distances in urban areas and challenged by poor technology.

## POVERTY AND REGIONAL INEQUALITIES

**1.13 Sudan remains among the world's poorer countries, ranking 147 out of 177 countries based on UNDP's 2007 Human Development Index.** About half of the land surface of the country is susceptible to severe periodic drought of long duration and large areas are considered ecologically sensitive. Crop production has been concentrated in the central and eastern region of the country, while livestock and lumber production is prevalent in pastoral and rainfed areas in the west (e.g., Darfur). Despite relative resource abundance, years of conflict in the South has undermined its potential contribution to agricultural production and other economic activities. The GoSS faces tremendous challenges in autonomously managing its resources, to date almost entirely oil revenue transfers from the federal government, to build basic service provision vital to human development.

**1.14 The effects of war have left large parts of the population in poor living conditions.** While data constraints in Sudan have been severe, both in terms quality and comprehensiveness, recent household survey data shows that poverty in Sudan is widespread and deep, and the level of inequality is high.<sup>6</sup> Only about sixty percent of the country's population for instance has access to improved water, while only thirty percent use improved sanitation facilities. Access to these services varied substantially across regions, ranging from about five percent or less in Jonglei to nearly eighty percent in Khartoum. Health conditions improved in the central and northern states, particularly in the urban areas, but remained poor in other states and in rural areas. In Southern Sudan, the health indicators are grim and disproportionately worse. Infant mortality is high at 102 deaths per 1,000 live births compared to 71 deaths per 1,000 live births in Northern Sudan. While under-five mortality has decreased in Kassala, Red Sea, Khartoum and White Nile and increased in Gedarif and West Darfur, the level remained high in Central and West Equatoria. Large disparities in malnutrition are evident, with incidence of undernutrition ranging from four percent in Khartoum to seventeen percent in Jonglei. The disparities in human development are also remarkable across rural-urban space and gender (Table 1.1). Finally, there are substantial gender inequalities. Services specific to women, such as prenatal and antenatal care, remain underprovided, and maternal mortality is persistent. Women enjoy less access to credit, land, and education—factors that are critical for improving their living standards as well as for contributing to the country's economic growth.

**1.15** The underdevelopment of the country yields a number of urgent concerns, and relevance to the trade agenda. First the development of the agricultural sector must be supported given the large population base dependent upon it. Second the spatial imbalance in the distribution of natural resources underscores the importance of oil revenue management and redistributive mechanisms for equitable sharing of gains from oil exports. This includes decisions for federal public investment, improvements in the execution of sub-national transfers and basic service delivery. These aspects, and the relevance

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<sup>6</sup> The Sudan Household Health Survey (SHHS) was completed in 2006. This is the first household survey covering the whole of Sudan in two decades.

of the trade agenda, need to be reflected in the country's poverty reduction strategy, which is currently under preparation led by the MoFNE.

**Table 1.1. Regional Disparities in Human Development Index, 2006**

Component	Selected Targets	Khartoum	Darfur	Two Areas	Central and West Equatoria	Jonglei
<b>Goal 1</b> Eradicate extreme poverty and hunger	Percentage of stunted children	34	33	34	34.4	32.5
	Percentage of wasting among under five year old children	11	16	13	9.9	28
	Percent of severely underweight (severe)	4	12	8	6.9	16.9
<b>Goal 2</b> Achieve universal Primary education	Net primary attendance	86.3	56.4	60.3	43.7	9.7
	Grade 5 completion rate	94.8	92.3	94.5	45.8	34.1
<b>Goal 3</b> Promote gender equality	Girls to boys primary attendance ratio	0.96	0.86	0.86	0.93	0.80
<b>Goal 4</b> Reduce child mortality	Infant mortality	69	75.4	79.1	120.4	74
	Under five mortality	87	109	124	156.5	108
	Measles immunization	84	61	70	65.0	19.7
<b>Goal 5</b> Improve Maternal Health	Maternal mortality	311	1110	366	2007.2	1861
	Proportion of birth attended by trained health personnel	85	48	58	9.1	8.3
<b>Goal 6</b> Combat HIV/AIDS, malaria and other diseases	Awareness about AIDS among women	94	64	68.5	78.5	24
	Effective malaria treatment	18.7	29	39.4	52.5	26.9
<b>Goal 7</b> Ensure Environmental Sustainability	Access to safe drinking water	79	44	51	12.7	5
	Access to improved sanitation	78	26	21	4.5	1.4

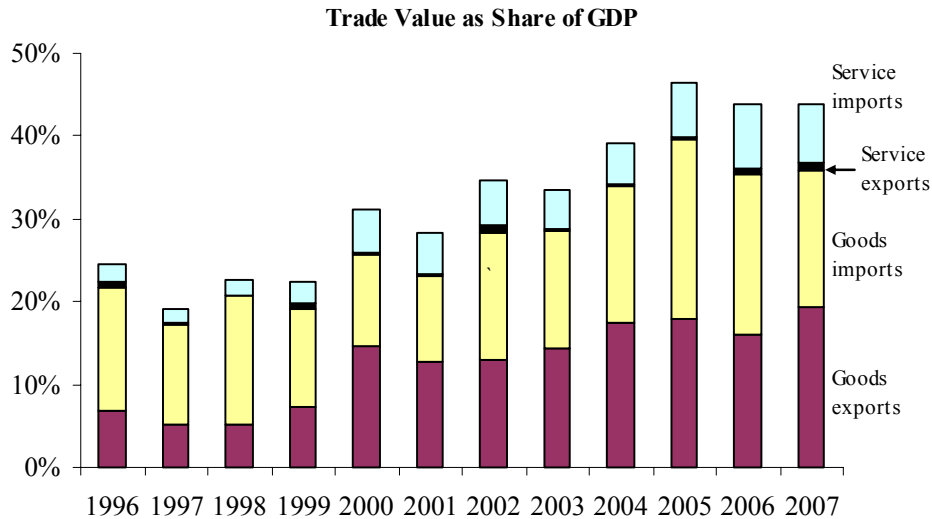
Source: Sudan Household Health Survey 2006.

## TRENDS IN INTERNATIONAL TRADE FLOWS

1.16 **Sudan's real growth of trade of 25 percent in 2007 represents the second highest growth in the world for that year among all countries.** This is a substantial increase from the already high historical trade growth rates since the oil export boom. While total exports grew dramatically from 7 percent of GDP in 1996 to 14 percent in 2006, imports remained higher at 16 percent of GDP and led to a trade deficit averaging two percent of GDP since 1999. The oil export boom raised the value of total exports from \$620 million in 1996 to \$4,522 million (1996 prices) in 2006, representing more than 700 percent increase over the decade. The large import demand of the country, the huge transportation and other expenses related to oil operation, and the moderate performance of the non-oil exports contributed to the current account deficit. The magnitude of current account and balance of payments during 1999–2006 however were smaller compared to pre-oil exportation levels. It is important to note that due to the prolonged history of conflict in the South, statistical data on trade with and within the South is very limited (See Box 1-1).

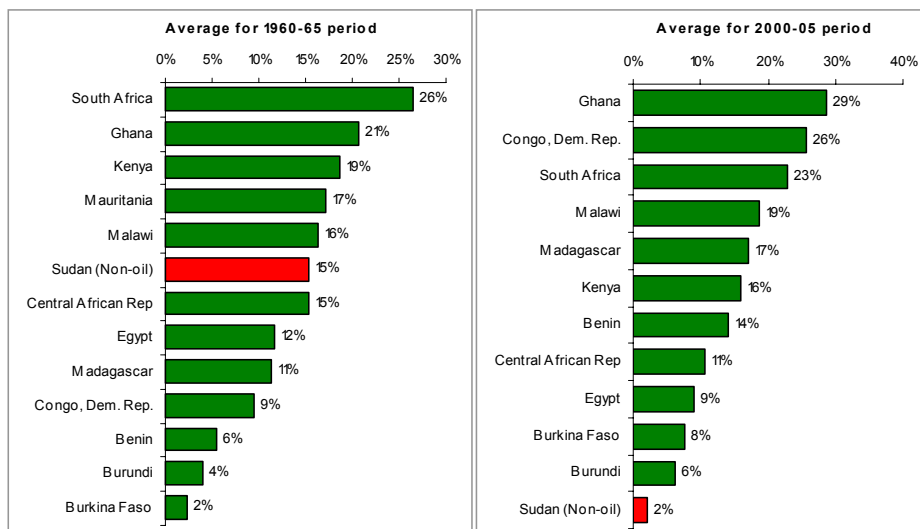
1.17 Trade as a share of GDP has increased, but Sudan's integration ratio remains lower than those of other low-income countries or neighbors in the region. The oil boom increased the value of trade from around 20 percent in 1996–1998 to over 40 percent of GDP since 2005 (Figure 1-4). Most of the recent growth of the country's exports (and its trade) is attributable to increased production of oil and gas, especially from newly exploited fields, and the increase in the world price has boosted the country's terms of trade. By contrast, non-oil exports have fallen significantly since the 1960s (Figure 1-5).

**Figure 1-4. Relatively Low but Rising Volume of Trade**



Source: Various IMF staff reports.

**Figure 1-5. Long-term Non-oil Export Performance**



Source: World Development Indicators

### Box 1-1. Southern Sudan's International Trade

Sudan's official statistics do not include data on international trade crossing the land borders into the South, and Sudan's trade partners do not publish data on trade by customs post, so there is no official source of data on Southern Sudan's international trade transactions. Casual observation suggests that exports from Southern Sudan have been minimal, but imports into the South have grown substantially since the signing of the CPA. One can obtain a rough idea of the magnitude of this trade by comparing Sudan's official imports from Uganda and Kenya with those countries' reported exports.

Ugandan exports of coffee and Kenyan exports of tea—these countries largest exports to Sudan—are reported in roughly the same amounts by both trade partners. Sudan's official trade statistics show only around \$6–7 million entering from these countries outside of coffee (Uganda) and tea (Kenya), while Kenya reports \$81 million in other exports and Uganda reports \$56 million. Differences in values reported at the product level for these goods are too great to be explained as typical disparities between importer and exporter reports. It is highly unlikely that some of these products would be imported into the North in the first place, notably alcoholic beverages. One can have some confidence that most of the difference between Sudan's official import statistics and its partners' export statistics represents imports into Southern Sudan.

Data reporter	Kenyan Exports		Ugandan Exports	
	Sudan	Kenya	Sudan	Uganda
Total Imports into Sudan	\$39.6	\$110.2	\$39.9	\$91.7
o/w coffee and tea	\$32.7	\$29.2	\$34.2	\$35.4
Non-coffee/tea	\$6.9	\$81.0	\$5.7	\$56.4

Data reporter	Kenyan Exports		Data reporter	Ugandan Exports	
	Sudan	Kenya		Sudan	Uganda
Electrical equipment	\$0.2	\$7.3	Motor vehicles	\$2.9	\$8.5
Tobacco products	\$0.1	\$7.1	Alcoholic beverages		\$8.1
Machinery and boilers	\$1.4	\$7.0	Sugar		\$6.5
Textiles	\$0.7	\$6.2	Cereals		\$3.9
Furniture and bedding	\$0.3	\$5.0	Flour, malt, starches		\$3.3
Articles of iron or steel	\$0.0	\$4.8	Vegetables		\$3.2
Pharmaceutical products	\$0.7	\$4.7	Cement, plaster, stone		\$2.9
Motor vehicles	\$0.1	\$3.7	Edible oils and fats		\$2.9

Source: COMESA Comstat Statistical Database.

Supplementing these official statistics is an annual survey on informal cross-border trade conducted by the Ugandan government. The latest survey finds that informal exports to Sudan were around \$7.8 million in 2006, made up mostly of manufactured products such as soft drinks, mattresses, and wheat flour. Informal imports were estimated at \$517,000 and consisted of beans, maize, millet, and sorghum.

A rough estimate based on these data is that the South imported around \$75 million from Kenya in 2006 and around \$55 million from Uganda.

## Direction of Trade

1.18 Compared to many other sub-Saharan African countries, Sudan trades relatively less with Europe and the United States (Table 1.2) and more with non-OECD and other developing countries. Since independence there has been a secular trend away from trading with Western Europe. During the Cold War, Sudan engaged in significant trade with Soviet bloc countries and with the United States (not at the same time). Sudan's trade with the Asia and Middle East expanded rapidly during the 1970s. Trade with Asian countries has always been significant, but has exploded in recent years with the oil boom. China is Sudan's number one supplier of imports and buyer of exports, although when oil exports are removed, Saudi Arabia is Sudan's main buyer of exports, primarily livestock and oilseeds. Sudan trades little with sub-Saharan Africa, although the data reported in (Figure 1-6) understate the magnitude of this trade. There has historically been some informal trade with Kenya, Uganda, and the Democratic Republic of Congo (DRC). Since the signing of the CPA, there has been a rapid increase in Ugandan exports to Southern Sudan that are not recorded in Sudan's official trade statistics

**Table 1.2. Principal Trade Partners in 2006**

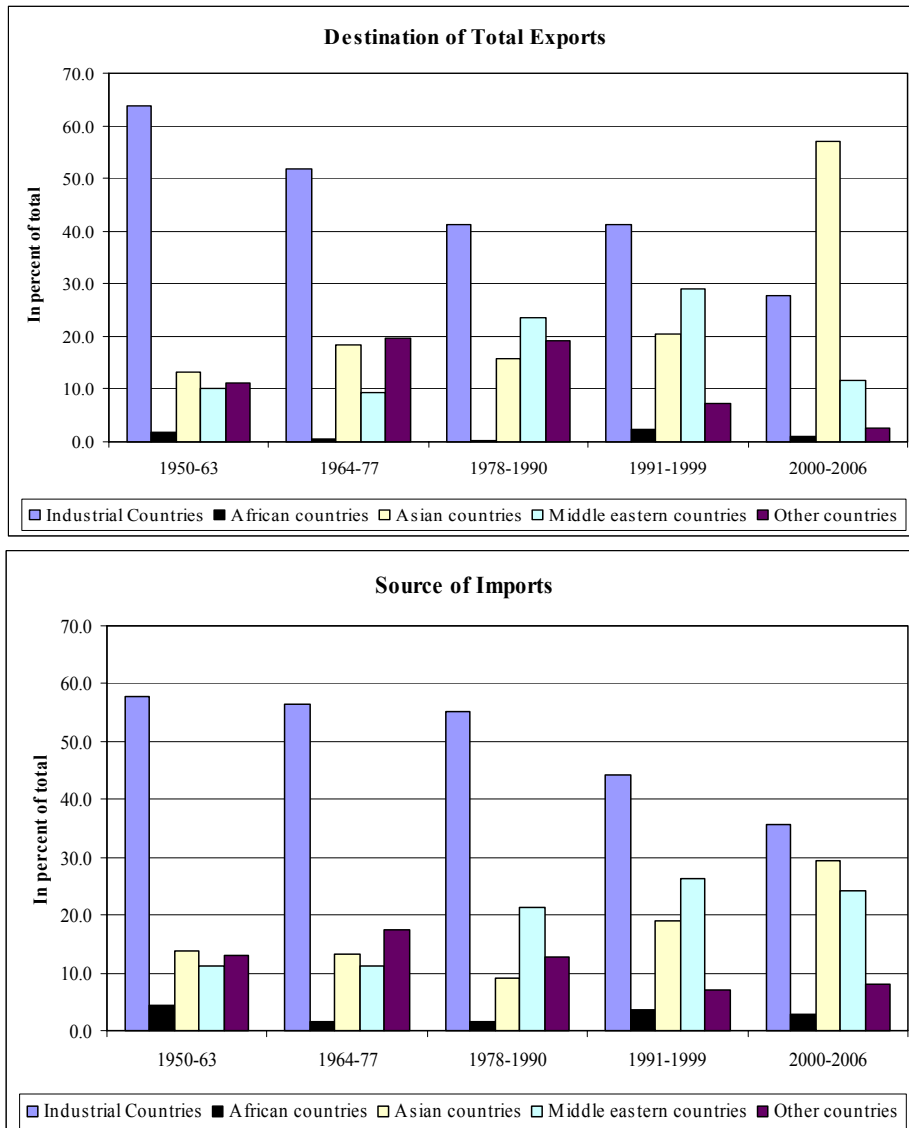
Sources of Imports		Destination of Exports			
Country	Share	All exports	Share	Excluding oil	Share
China	18.2	China	62.9	Saudi Arabia	22.0
Saudi Arabia	8.1	Japan	12.9	Canada	8.8
Japan	6.7	Saudi Arabia	4.7	U.K.	8.0
Egypt	5.5	U.A.E.	3.3	Egypt	7.6
U.A.E.	5.5	Canada	1.9	China	6.9
India	4.3	U.K.	1.7	France	4.4
Italy	4.0	Egypt	1.6	India	3.9
U.K.	3.6	France	0.9	Germany	3.6
Germany	3.5	India	0.9	Bangladesh	2.8

*Source:* Commodity data provided by Sudan to UN Comtrade.

*Notes:* Shares are based on nominal U.S. dollar values of exports and imports.

1.19 As will be presented in greater detail in the discussion on agriculture, exports of each of Sudan's major agricultural commodities are heavily concentrated in a handful of countries, with the exception of gum arabic and, to a lesser extent, sesame. This concentration makes Sudan vulnerable to market disruptions. Diversifying into new markets should be a priority for the coming years.

**Figure 1-6. Changing Direction of International Trade, 1950–2006**



Source: IMF Direction of Trade Statistics.

Notes: Japan is included in the category of industrial countries. Shares of total trade based on values of exports and imports expressed in nominal U.S. dollars.

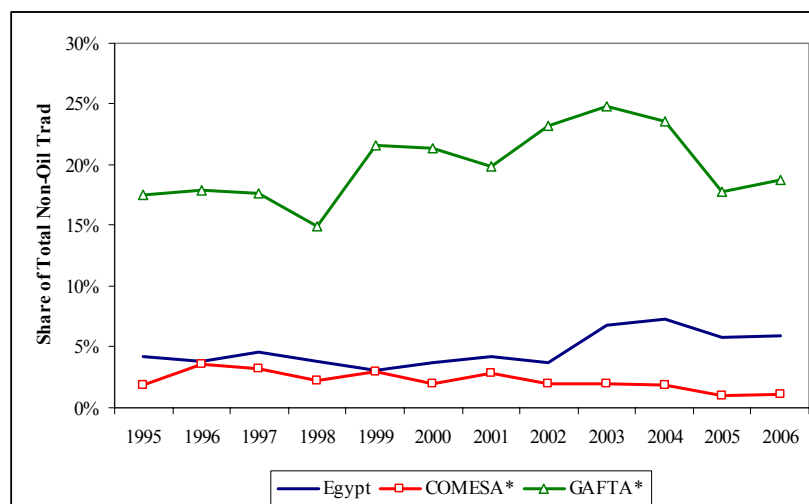
1.20 Sudan is a member of two regional trade agreements: the Common Market of Eastern and Southern Africa (COMESA) and the Greater Arab Free Trade Area (GAFTA).<sup>7</sup> The relatively higher share of GAFTA in Sudan’s total non-oil trade reflects long-standing cultural and commercial relationships with the Arab world. The breadbasket strategy adopted in the 1970s was designed to develop Sudan’s agriculture to meet the food gap in the Arab countries. Its non-oil trade to GAFTA has been substantial, rarely

<sup>7</sup> Members of COMESA include Djibouti, Egypt, Kenya, Madagascar, Mauritius, Malawi, Rwanda, Sudan, Zambia, Zimbabwe. Uganda exchanges tariff reductions of 80 percent with COMESA members. GAFTA members include Bahrain, Comoros, Djibouti, Algeria, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Qatar, Saudi Arabia, Sudan, Somalia, Syria, Tunisia, West Bank/Gaza, and Yemen.



falling below 15 percent of its total non-oil trade. The slowdown in Sudan’s agricultural growth in 2004–2006 lowered GAFTA’s share trade in Sudan’s trade. In contrast, Sudan’s trade with COMESA members—other than Egypt—seems to be insignificant, continually declining during the past decade and never exceeding 5 percent of total non-oil trade (Figure 1-7).

**Figure 1-7. Trade with FTA Partners**



Source: Data reported by Sudan to UN Comtrade.

Notes: COMESA and GAFTA’s shares exclude Egypt, which is a member of both groups.

## Commodity Composition of Trade

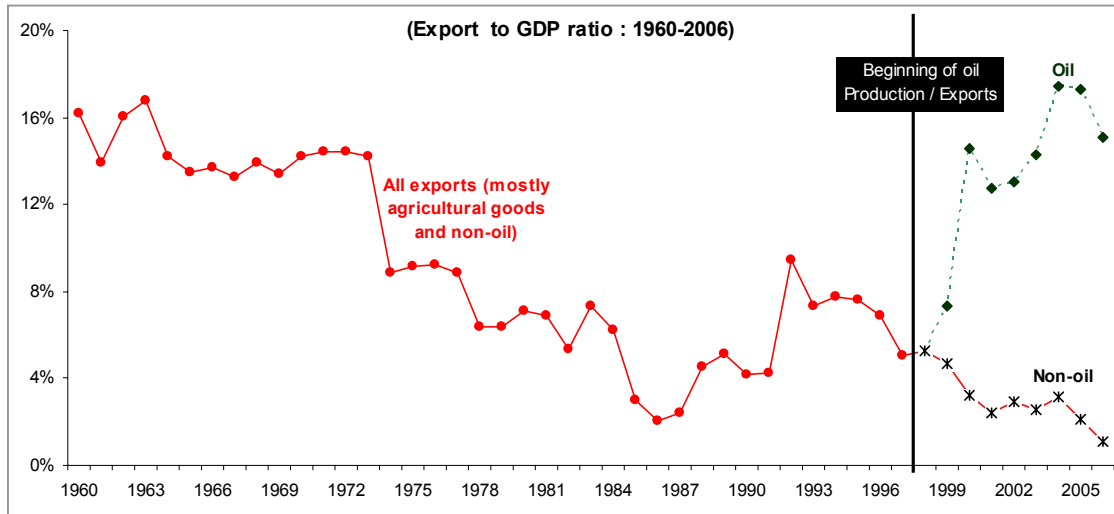
1.21 Sudan historically enjoyed a diversified basket of agricultural products. The production schemes for cotton dates as far back as the colonial period in the regions of Gezira and White and Blue Niles in the east. Large-scale mechanized production of sorghum started near Gedaref in the eastern part of Sudan. The country’s irrigated and rain-fed areas have produced millet, wheat, sesame and groundnuts. Other agricultural commodities include livestock, gum arabic and fruits and vegetables. Although several of these have enjoyed strong growth, agricultural exports are now lower than they were in the late 1960s and early 1970s. The manufacturing sector has never contributed strongly to Sudan’s exports.

1.22 Cotton was the dominant export commodity of the country during the colonial era. Sesame seeds and oilseeds were the second most important export during the 1960s and displaced cotton as the top export commodity in the late 1990s. In the 1980s, live animal emerged as a major commercial export. Sugar became an important export in the 1990s, and is likely to contribute substantially to non-oil trade in the future. Sudan is the world’s dominant gum arabic producer, although its share of the world market has slipped in recent years.

1.23 The oil export boom has transformed Sudan’s export basket (Figure 1-8). Oil exports stood at 27 percent of GDP since 1999, while agricultural exports stood at 3 percent only. Sesame, livestock, cotton and gum arabic, which formed about 60 percent of total

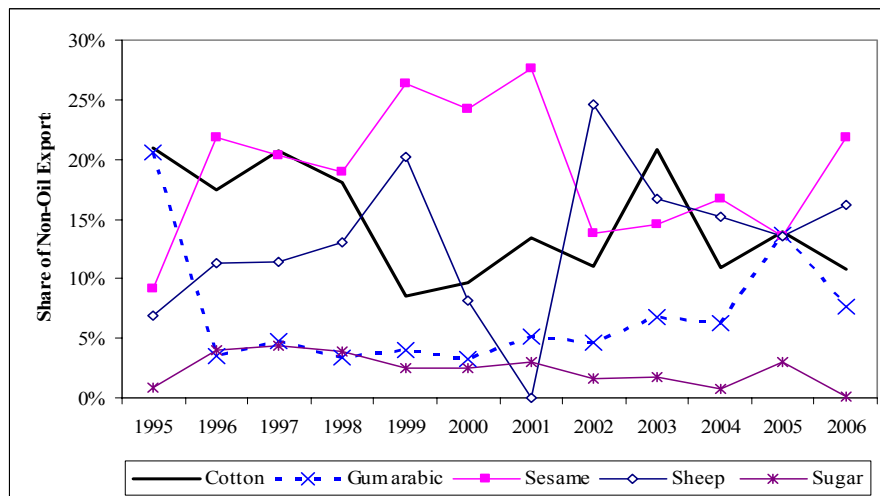
exports in 1998 were only about 13 percent of exports during 1999-2005. Sugar and other agricultural commodities contribute to about 6 percent more in exports since 1999, providing a total agricultural share of 19 percent to exports. The increase in the exports of cotton, livestock and sesame in 2002-2004 contributed to export revenue growth during the period (Figure 1-9).

**Figure 1-8. Sudan is Experiencing a Resurgence in Export Performance, Due to Oil Exports**



Source: Sudanese export data reported to UN Comtrade.

**Figure 1-9. Commodity Composition of Major Non-oil Exports, 1995–2006**



Source: Sudanese export data reported to UN Comtrade.

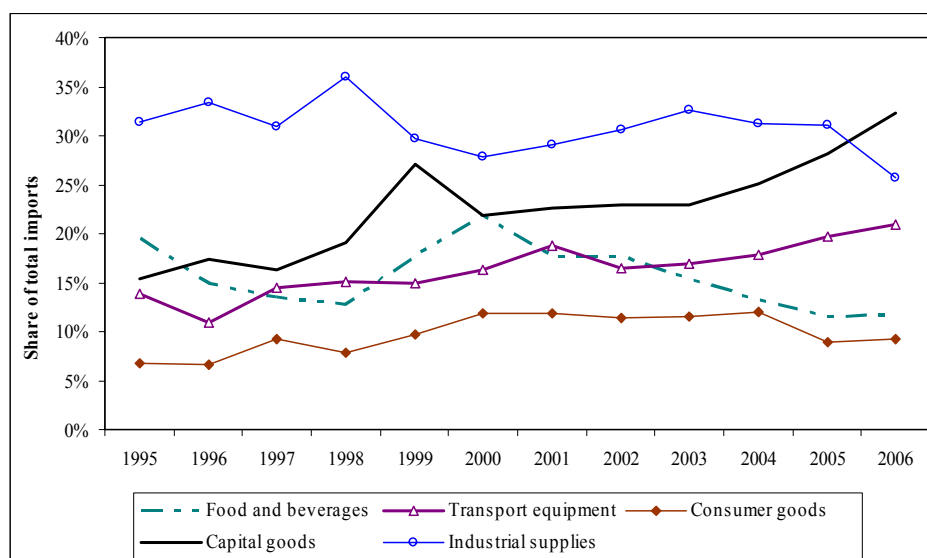
Notes: Shares are based on values of exports in nominal U.S. dollars.

1.24 Crucial to sustained economic growth and to the distribution of development is the continued growth not only in the oil export but also in agricultural exports. Immediate reforms in agricultural policy must be implemented to revive or at least improve its competitiveness.

## Composition of Imports

1.25 Sudan's main imports include capital goods, transport equipment and industrial supplies (Figure 1-10). Intermediate manufactured goods dominate the country's imports since 1995. There has been a steady decline in the imports of manufactured goods from 35 percent of total imports in 1998 to 23 percent in 1999–2006. The expansion in most industries and services during the period required greater inputs of capital goods, while the increased income and slowdown in agricultural production led to the increase in private consumption of imported food commodities. The share of imported food to total imports rose marginally from 14 percent in 1998 to 16 percent during 1999–2006. The share of capital goods to total imports doubled over the past decade. Transport equipments also mounted to more than 15 percent since 2003. Notwithstanding the country's growing exports of petroleum through the years, Sudan remained a net importer of oil products.

**Figure 1-10. Composition of Imports, 1993–2006**



Source: UN Comtrade.

Note: Imports are classified according to Broad Economic Categories.

## Trade in Services

1.26 Sudan is a net importer of internationally traded services. According to balance of payments statistics, Sudan's main recorded services trade flows are travel, transportation, and government services (e.g., embassies), as shown in Figure 1-11. Travel imports and exports have both grown rapidly since 2004.<sup>8</sup> The oil boom and the resolution of the civil war are likely driving this increase in travel services. The World Travel and Tourism Council estimates that Sudan's tourism industry directly contributes around 0.9 percent to Sudan's GDP.<sup>9</sup> In recent years, Sudan has received imports of services in the form of foreign commercial presence in the banking, construction, retail, and tele-

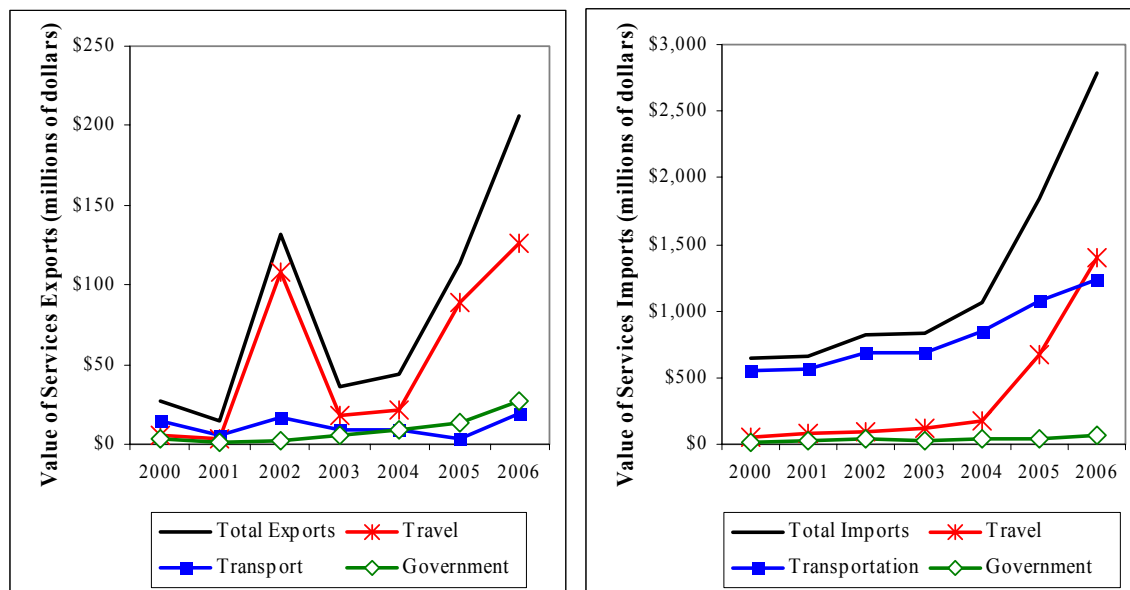
<sup>8</sup> Balance of payments statistics record as "travel" the value of goods and services provided to consumers while on international trips.

<sup>9</sup> World Travel and Tourism Council, Sudan Country Report 2008, [www.wttc.travel](http://www.wttc.travel).

communications services sectors. Investment in these sectors has come primarily from Egypt, Jordan, Kuwait, Lebanon, Turkey, and the United Arab Emirates (UAE).

1.27 Exports of transportation services are dominated by air transport, while sea transport is the largest transportation service imported. The latter is closely tied to the oil boom: purchases of oil transportation services have accounted for 25–40 percent of total transport services imports in recent years.<sup>10</sup> Chapter 4 discusses transportation services in greater detail. The increase in government services since 2002 reflects the expansion of foreign government missions associated with the end of the civil war and increase in bilateral aid flows.

**Figure 1-11. Composition of Services Trade Flows, 2000–2006**



Source: IMF International Financial Statistics.

1.28 International trade in services takes many forms that are not well identified in balance of payments statistics. Some services are imported when Sudanese consumers travel abroad to consume them or when foreigners purchase services in Sudan (e.g., visiting museums or receiving health care); although travel is recorded in balance of payments statistics, many other services purchased by foreign consumers are not. These also include services such as telecommunications and financial services are provided through local operations of foreign banks and mobile phone operators, such as Kenya Commercial Bank operations in Juba and Sudanese mobile phone operations by the multinational firms Zain (based in Kuwait) and the MTN Group (based in South Africa). Also poorly captured in internationally-reported statistics are the values of the services provided locally by foreign workers, as well as the corresponding services provided in other countries by Sudanese workers. Chapter 4 will investigate the functioning of financial services and telecommunications markets, and discuss the different roles played by different for-

<sup>10</sup> IMF, “Sudan: 2007 Article IV Consultation and Staff-Monitored Program,” IMF Country Report No. 07/343, October 2007: 28.

eign investors in these markets. But data needed to provide a full accounting of Sudan's international trade in services are not available.<sup>11</sup>

## SUMMARY

1.29 The peace agreement and the oil boom have exerted a profound influence on Sudan's economy, public finances, and integration into the world economy. Within a single year, oil exports grew from almost zero to two-thirds of all exports. Oil export earnings and FDI associated with oil production have stimulated rapid real growth in GDP. Revenues collected from oil sales are critical to implementation of the CPA and have enabled the government to keep inflation under control while increasing the delivery of social services. At the same time, the oil boom has also led to rapid real exchange rate appreciation, which undermines export competitiveness. Exports of agricultural commodities, many of which provide income to the rural poor, have declined and manufacturing exports have remained stagnant. Sudan's future peace and prosperity depend greatly on the ability of the country to face the challenge of both revitalizing traditional non-oil exports and developing new products and services that can be traded in the world economy.

1.30 The remainder of this DTIS investigates the main constraints—both internal and external—to international trade. Chapter 2 examines trade policy and institutions: foreign market access barriers, the tariff and incentive regime, trade promotion institutions, and the ways that membership in the WTO membership and other trade agreements can increase Sudan's integration into the world economy. Chapter 3 drills down to the sectoral level. It identifies factors in agricultural and manufacturing production that raise costs and thereby reduce export competitiveness. Chapter 4 investigates cross-cutting constraints to competitiveness: customs administration, food safety standards capacity, transportation infrastructure, and backbone services such as banking, telecommunications, electricity, and trade logistics. To conclude the DTIS, Chapter 5 identifies areas where policy reforms and donor technical assistance can help Sudan implement a pro-poor trade strategy.

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<sup>11</sup> The forthcoming World Bank Country Economic Memorandum will include an assessment of tourism.

## 2. TRADE POLICY AND INSTITUTIONS

2.1 The previous chapter found that Sudan enjoys macroeconomic stability and a comparative advantage in a range of agricultural commodities. These can provide the foundation for export-led growth and income-generation in marginalized areas through revitalization of traditional exports and diversification into new products and new markets. This chapter examines external constraints on Sudan's exports, opportunities available through preferential trade agreements, and the role that Sudan's own trade policy and trade promotion institutions can play in supporting an expansion of non-oil exports.

### IS SUDAN CONSTRAINED BY FOREIGN MARKET ACCESS BARRIERS?

2.2 Few of Sudan's exports face high tariffs in foreign markets, but this will likely change as Sudan succeeds in moving up the value chain into more processed foods and manufactured goods. Sudanese producers face low tariffs in practice, either because MFN tariffs are low or because exporters benefit from tariff preferences, and few of Sudan's exports are subject to quotas. There are exceptions, however: sugar faces high duties, and the U.S. market is closed to Sudan. This section reviews MFN tariff barriers, Sudan's utilization of tariff preference programs, the effects of the U.S. embargo, and economic partnership agreements.

#### MFN Barriers are Low

2.3 Sudan faces low tariffs in most markets, primarily because few countries impose high tariffs on oil and basic agricultural commodities (such as gum arabic and livestock), but also because of preferential arrangements (e.g., EU preferences on sugar). The notable exceptions to this generalization are India and Korea (Table 2.1).

- India levies duties of 30 percent on gum arabic and 20 percent on iron alloys, two of Sudan's largest exports to India in 2005. Cotton, Sudan's largest export, faced a duty of 10 percent.
- Korea imposes a tariff rate quota on imports of sesame seeds.
- None of Sudan's exports are covered under Korea's Generalized System of Preferences (GSP) program for LDCs.<sup>12</sup>

2.4 Fast-growing economies in Asia—notably India and China—provide opportunities for the products that Sudan currently exports to other countries. As Sudan works to exploit these opportunities, it will encounter market access barriers on products such as sugar, oil seeds and edible oils, and cotton. For example, India imposes tariffs of 30 percent on most agricultural commodities and rates as high as 100 percent on some products (e.g., groundnut oil), and China levies duties of 50 percent on sugar. Many countries increase tariffs with the level of processing, e.g., collecting higher duties on leather shoes

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<sup>12</sup> Korea's GSP program is quite limited in scope: fewer than 200 tariff lines are included in the 2007 schedule.

than on leather, and higher duties on leather than on raw hides and skins. As Sudan succeeds in exporting more processed products, it will increasingly encounter these higher market access barriers.

**Table 2.1. Sudan Faces Mostly Low Tariffs in Major Export Markets**

Importing Country	Simple Average	Weighted Average	Maximum Rate	Coefficient of Variation	Share Non-dutiable	Tariff Year
China	7.7	0.32	40	77	97	2006
European Union	0	0	0		95	2006
India	13.6	15.4	30	48	5	2005
Indonesia	3.3	0.1	20	169	98	2001
Japan	2.6	0	29.8	436	100	2006
Korea	35.1	20.1	630	152	1	2006
Saudi Arabia	0	0	0		100	2006
MENA average	1.2	0.69	30	338	88	2006
SSA average	4.8	2.3	30	154	41	2006

*Source:* WITS calculations using UNCTAD TRAINS and UN Comtrade databases.

*Notes:* Averages are derived using traded products only. Calculations assume that all available preferences are utilized and do not take into account tariff exemptions, duty-drawbacks, etc.

## Preferential Arrangements and Preference Utilization

2.5 Sudan benefits from several preferential arrangements that allow Sudanese firms export to other countries without paying full MFN duties. Some of these—COMESA and GAFTA—are reciprocal agreements, i.e., Sudan receives duty reductions on its exports and provides duty reductions to imports from other parties to the agreements. In other cases preferences are not reciprocal: Sudan receives preferential treatment for its exports to China, the European Union, Korea, and other countries under programs offered by those countries, but Sudan charges full MFN duties on imports from those countries.

2.6 **GAFTA:** Although data on Sudan's utilization of GAFTA preferences are not available, an examination of trade flows reveals that Sudanese exporters currently receive little benefit from GAFTA preferences since exports are concentrated in countries or products with low preference margins, i.e., they would face low MFN duties in the absence of GAFTA preferences. Table 2.2 lists the principal products exported to GAFTA members and the MFN duties that the main buyers impose on non-GAFTA members, and it shows that the available preference margins on most exports are quite low. Among these products, GAFTA presents an important market access opportunity only for sesame, on which some GAFTA members impose high MFN duties.<sup>13</sup> As Sudan succeeds in diversifying into more-processed food products or manufactures, GAFTA preferences will offer an increasingly important trade opportunity, as many GAFTA members impose higher MFN tariffs on those products. One should bear in mind, however, that almost 80 percent of Sudan's GAFTA exports in 2006 went to Saudi Arabia and the UAE, which as members of the Gulf Cooperation Council have adopted a common external tariff that has a maximum rate of 5 or zero percent on virtually all products.

<sup>13</sup> Tunisia's MFN tariff on sesame is 27 percent; Morocco's is 25 percent.

**Table 2.2. Exports to GAFTA Face Low MFN Duties**

<b>Principal Products Exported</b>	<b>Value of Exports (millions of dollars)</b>	<b>Share of total GAFTA exports</b>	<b>Principal importers (MFN tariff rates in parentheses)</b>
Petroleum and products	\$192.4	35%	UAE (5% tariff)
Live animals (primarily sheep)	\$109.9	20%	Saudi Arabia (duty free)
Oil seeds (primarily sesame)	\$86.1	16%	Egypt (2%), Saudi Arabia (5%), Syria (5%)
Non-monetary gold	\$72.0	13%	UAE (duty free)
Total exports to GAFTA members	\$546.7		

*Source:* Trade data reported by Sudan to UN Comtrade for 2006. Tariffs are from data reported by importing countries to the UNCTAD Trains database.

**2.7 Egypt:** Egypt is, by far, Sudan’s biggest trade partners in the COMESA FTA (as well as an important GAFTA partner). Data on preference utilization are not available, but an examination of Egypt’s 2007 tariff schedule suggests that most of Sudan’s major exports to Egypt—copper, live animals, sesame, molasses, and cotton—would face MFN duties of only 0–5 percent if preferences were not available. Egypt and Sudan have negotiated negative lists that limit the scope of trade eligible for COMESA preferences. Egypt’s negative list is short, including chick-peas, cotton textiles, mixed textiles, ready-made clothes, and tricot products. Garments face MFN duties of 30 percent; the others face duties of 10 percent or less in the 2007 tariff schedule. If garment manufacturers in Sudan were able to establish internationally-competitive production, they would likely find Egypt’s MFN tariffs of 30 percent to be prohibitive.

**2.8 Kenya:** Kenya is Sudan’s second largest trade partners in COMESA, and given its size and proximity, is likely to be a major destination for Southern Sudan’s exports once the South’s economy is revived. Appendix Table A-1 shows that Sudan received preferences (i.e., forgone MFN customs duties) equal to almost 70 percent of the reported value of shipments to Kenya. This ratio is heavily influenced by sugar, which dominates Sudanese exports to Kenya.<sup>14</sup> The average tariff on non-sugar exports is 16 percent, which is relatively high, and only 10 percent of eligible non-sugar products actually receive preferences, according to Kenyan customs data.<sup>15</sup> The likely explanation for the low value of preferences is that Sudanese exporters have been unable to demonstrate that their products originated in Sudan (a necessary condition for receiving preferences). Sudan and Kenya concluded an agreement in May 2006 on procedures for satisfying COMESA rules of origin, which should improve the utilization of preferences.<sup>16</sup>

<sup>14</sup> Sugar makes up 85–90 percent of total imports that the Kenyan government recorded in recent years. Kenya’s MFN duty on sugar is 100 percent, well above rates charged on other products. Outside of sugar, the principal beneficiaries of COMESA preferences in Kenya were wood and natural honey, which face MFN tariffs of 5 and 25 percent.

<sup>15</sup> Paper products (HS 48) were the major product that failed to benefit from COMESA. They made up around 60 percent of Kenya’s non-sugar imports from Sudan in 2004–2005, and faced MFN duties of up to 25 percent in 2005 and up to 35 percent in 2004.

<sup>16</sup> *The East African Standard* (May 6, 2006).



2.9 **Uganda:** Few of Sudan's exports to Uganda received preferential treatment, in large part because 80 percent of Sudan's exports face zero MFN tariffs (see Appendix Table A-2).<sup>17</sup> Furthermore, utilization of preferences on dutiable trade is quite low: 1–5 percent in 2005. Ugandan customs authorities report that only cosmetic products received preferential treatment in 2005. Most products that are apparently from Southern Sudan and paying duties—shipments medicines, garments, and televisions accounted for most of duties paid in 2004–2005—are likely re-exports and therefore do not qualify for preferences.

2.10 **Ethiopia:** Ethiopia gives duty-free treatment on all products from Sudan, giving Sudan better access than other COMESA members (who receive a 10 percent duty reduction). Other than gasoline, on which Ethiopia levies no customs duties (although it does impose a 30 percent excise tax), all Sudanese exports are in product lines with strictly positive MFN duties (see Appendix Table A-3). Sudan's preferential margin in practice is 6.4 percent, and only 3 percent of dutiable imports from Sudan paid customs duties.<sup>18</sup> These included vehicle tires, color televisions, and automobiles, which were likely re-exports.

2.11 **Sudan needs to build capacity to satisfy COMESA rules of origin.**<sup>19</sup> As exporters in the South become established, they will naturally look to the Kenyan, Ugandan, and other COMESA markets, and to benefit from COMESA preferences, they will need to demonstrate that their products satisfy the relevant rules of origin. Kenya and Uganda charge the maximum East African Community tariff rate (25 percent) on many products likely to be exported from Southern Sudan in the medium term, such as live animals and meat, most fruits and vegetables, tobacco, lumber and wood products, fish fillets, and so on. Educating emerging producers about Kenyan customs requirements is an important responsibility for both the GoSS trade ministry and private sector organizations, such as the southern Sudanese Chamber of Commerce.

2.12 **European Union preferences:** Preferences received from the EU are small relative to the value of trade: only 3 percent of the value of the EU's imports from Sudan in 2002–2005.<sup>20</sup> Low MFN duties explain this: almost 90 percent of shipments faced no MFN duties in recent years (see Appendix Table A-4). Preferential access to the EU's tightly controlled sugar market accounts for virtually all of the value of preferences. Sugar made up only 5 percent of Sudan's total exports to the EU in 2003–2005, but forgone duties on sugar were 88 percent of total preferences received by Sudan since the

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<sup>17</sup> Uganda collected no duties on used clothing, which made up almost three-quarters of shipments from Sudan in 2005. Books and other printed material amounted to about half of reported shipments in 2004; MFN tariffs on these are also set at zero.

<sup>18</sup> The main beneficiaries of preferences in 2005, according to Ethiopian customs data, were Sudanese exporters of crushing and grinding machines, soap, butane, and liquid petroleum.

<sup>19</sup> Although data on GAFTA preference utilization are not available, it is likely that Sudanese exporters will need to build their capacity to satisfy GAFTA rules of origin as they move into more processed exports to GAFTA countries.

<sup>20</sup> This analysis assumes that traders are using the EBA program, which offers complete duty-free access. Under the ACP and GSP programs, some products face strictly positive tariffs. It is not possible to determine which program was used for all imports in the dataset. One should view this analysis as the best-case scenario for potential preferences.

EU's MFN tariffs on sugar are so high.<sup>21</sup> Preference utilization on dutiable manufactured products is only 11 percent. As most manufactured products Sudan exports to the EU face MFN tariffs of 1–3 percent, the extra administrative cost of demonstrating origin may not be worth the forgone MFN duties. Sudan received preferences on most agricultural products other than sugar, although MFN duties on most of these products are relatively low.<sup>22</sup>

2.13 **China:** China recently introduced a program of unilateral preferences for African LDCs. This program covers 441 tariff lines.<sup>23</sup> Customs collection data are not available from China, so it is not possible to analyze how well Sudan is making use of these preferences. One can, however, assess the potential coverage of preferences. Over 90 percent of the potential value of the preference program lies in avoiding the 5 percent MFN duty on sesame seeds.<sup>24</sup> Sudan's non-oil exports to China are concentrated in primary products, such as sesame seed, cotton, chromium, and animal hides. Except for cotton, on which China levies a 27 percent tariff, these products face relatively low MFN duties. Some products that Sudan exports to other countries (or could potentially export) face high MFN tariffs in China, however, most notably sugar (50 percent duties), meat (20–25 percent), and fruit such as watermelon (25 percent). Negotiating an expansion of China's preference program would help promote Sudan's exports of these products.

### **The U.S. Economic Embargo: An Indirect Barrier to Trade**

2.14 The United States imposed economic sanctions on Sudan in 1997. In its present form, the policy blocks U.S. firms and individuals from trading with Sudan or conducting any business transaction with the national government of Sudan or any individual or organizations associated with the national government, including state-owned enterprises (e.g., the state-owned sugar companies, the Gezira Scheme, GIAD, etc).<sup>25</sup> Imports of gum arabic are exempt from sanctions. Revisions in 2006 exempt Southern Sudan and other marginalized areas from sanctions.<sup>26</sup>

2.15 Sanctions appear to have had limited direct effect on merchandise trade since Sudan can find alternative buyers or sellers for most products. There are some exceptions, however. The country was initially unable to obtain replacement parts for U.S.-made aircraft and railroad engines. Over time it has become possible to find parties in other countries willing to sell or reverse-engineer the necessary parts.

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<sup>21</sup> The EU's MFN tariff on sugar is €339 per metric ton. The ad valorem equivalent of this tariff is 67 percent, using the average price recorded for Sudanese sugar imported in 2003–2005.

<sup>22</sup> The preferential margin for sorghum is particularly high: the MFN tariff is €36.37/MT, which was equivalent to a 17 percent ad valorem tariff on Sudanese sorghum. Preference margins on molasses and groundnut oil are more modest—around 6 percent—but trade volumes are large.

<sup>23</sup> The Chinese tariff schedule is defined at 10 digits. There are 175 6-digit products in the Harmonised System that have preferences.

<sup>24</sup> Oil makes up 97 percent of Chinese imports from Sudan and faces no MFN duties.

<sup>25</sup> The U.S. sanctions policy is articulated in Executive Orders 13067 (November 5, 1997), 13400 (April 26, 2006), and 13412 (October 17, 2006).

<sup>26</sup> Southern Sudan, Southern Kordofan/Nuba Mountains State, Blue Nile State, Abyei, Darfur, or marginalized areas in and around Khartoum are identified in Executive Order 13412.

2.16 U.S. sanctions have arguably had their greatest effect on Sudan through their restrictions on financial flows. Financial institutions must demonstrate to U.S. Treasury that any dollar-denominated transactions do not involve proscribed individuals or organizations. A representative of a Geneva-based bank informed the DTIS mission that, in practice, this deters many European financial institutions from conducting any business with Sudanese companies. Those that continue to do business are able to command high fees. Sanctions have also discouraged investment by western multi-national companies (MNCs), even though the national government maintains very liberal policies on FDI. Instead of established MNCs—who could transfer technologies, managerial expertise, and connections to global supply chains, in addition to capital—foreign investors in Sudan have tended to be state-owned enterprises, sovereign wealth funds, and individuals.

### **Economic Partnership Agreements**

2.17 The Cotonou Agreement between the EU and the Africa, Caribbean, and Pacific (ACP) countries expired on December 31, 2007. Sudan was not among the members of the Eastern and Southern Africa negotiating group that signed an interim Economic Partnership Agreement (EPA) in December 2007, which provides duty- and quota-free access to EU, except for sugar and rice.<sup>27</sup> Sudan continues to enjoy this access under Everything But Arms, but does not benefit in the expanded sugar quota or more liberal rules of origin provided under the interim EPA.

2.18 There has been relatively little quantitative analysis to evaluate likely effects of an EPA on the Sudanese economy. Two studies have been conducted to date using a partial equilibrium model to simulate the economic effects of one part of an EPA: those of Sudan reducing tariffs on goods imported from the European Union.<sup>28</sup> Both use the SMART partial equilibrium model and find that economic welfare losses due to trade diversion (switching to less efficient suppliers with little or no change in domestic prices or increase in total imports) outweigh the gains from trade creation.<sup>29</sup> This result stems in large part from high MFN tariffs; preceding preferential liberalization with gradual reductions in MFN tariffs would reduce the scope for trade diversion.<sup>30</sup> Additional research is needed to evaluate effects of an EPA that lie outside the scope of the SMART model:

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<sup>27</sup> Comoros, Madagascar, Mauritius, Seychelles, Zimbabwe, and Zambia initialed the ESA-EU interim agreement. These signatories gained expanded quotas for sugar in 2008, as well as more liberal rules of origin for garments, and a derogation of rules of origin for tuna. In return, they promised to gradually liberalize duties on imports from the EU: tariffs on final goods will be liberalized over 25 years; others over 15 years.

<sup>28</sup> Trade and Development Studies (TRADES) Center, “Study of the Impact and Sustainability of Economic Partnership Agreement for the Economy of Sudan,” Harare: TRADES Centre, November 2004. Hakim Ben Hammouda, Adam Elhiraika, Nassim Oulmane, and Islam Swaleh, “Assessing the Consequences of the Economic Partnership Agreement on the Economy of Sudan,” AIPC Work in Progress Number 68, Addis Ababa: UN Economic Commission for Africa, September 2007.

<sup>29</sup> Partial equilibrium analyses, such as SMART, hold constant the factors of production (land, labor, capital) used in different sectors. To evaluate the effects of the reallocation of resources across sectors that occurs when trade policies change one needs to use a general equilibrium model, which requires substantially more information about the structure of the economy.

<sup>30</sup> Preferential tariff reductions create greater changes in the relative prices of imports across suppliers when MFN tariffs are high, thus leading to more substitution of one supplier for another (other things being

- The existing studies evaluate only goods trade and thus ignore the effects of services liberalization in an EPA. Models that include services trade generally find that reducing regulatory barriers to trade in services—especially those restricting FDI in transport, insurance, banking, and other backbone services—trigger productivity increases throughout the economy.<sup>31</sup>
- The model used in these two studies, SMART, can only evaluate effects of tariff reductions in a single country. Many other countries in the region are signing EPAs with the EU, and these will induce changes in intra-regional trade.
- SMART assumes that all importers pay the statutory tariffs rate for their imports (i.e., the rate published in the tariff schedule). According to data provided by Sudan Customs to the DTIS team, 15 percent of imports in 2006 received duty reductions under the Investment Act. The studies therefore overstate the magnitude of effects of an EPA on trade flows and revenue.

2.19 An EPA could potentially bring benefits that would outweigh the costs of trade diversion, however. Expanded access to the EU sugar market would clearly help. Joining an agreement with other COMESA members could allow for the Sudan's interests to be reflected in decisions concerning regional infrastructure, as the EU is expected to contribute to the COMESA Infrastructure Fund. This would be especially important for potential exporters in Southern Sudan. Along with other countries in the region, Sudan would benefit from an EPA that included provisions on standards (e.g., facilitating recognition of accreditation bodies in the region). Similarly, an EPA could facilitate regulatory harmonization that would promote regional trade in services.

2.20 The European Commission is currently supporting the Ministry of Foreign Trade (MoFT) with a project designed to strengthen the machinery for negotiating and implementing an EPA through analytical work, among other activities. It could be helpful to commission an analysis of market opportunities for Sudanese producers and the factors that have thus far prevented them from more fully exploiting the duty-free access that they already enjoy. The EU is one of the world's largest importers of live sheep, and sesame, yet Sudan—one of the world's largest exporters—has a relatively small share (sesame) or no share (live sheep) of the EU's import market. Building MoFT's capacity to undertake the additional quantitative analysis listed above would also be beneficial.

#### **TARIFF AND INCENTIVE REGIME: DOES IT FACILITATE INTEGRATION?**

2.21 Sudan took great strides during the 1990s to open the economy to world trade. The government eliminated foreign currency restrictions, reduced import tariffs, eliminated commodity boards, privatized state-owned enterprises, and opened the economy to more foreign investment. Sudan's import duties, taxes, exemptions, and other policies that shape the incentive regime continue to discourage international integration, however:

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equal). For this reason, trade economists often recommend that governments first reduce tariffs on a non-discriminatory basis.

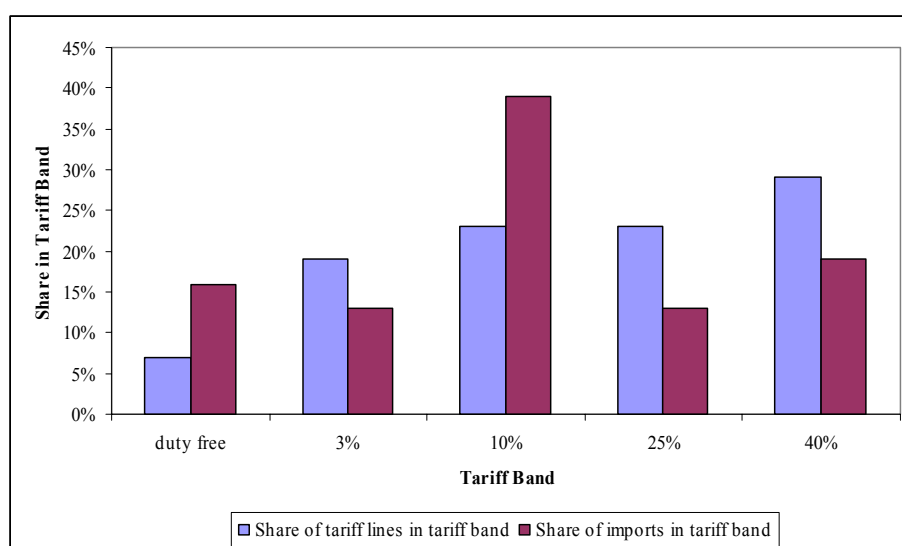
<sup>31</sup> See for example, Jesper Jensen, Thomas Rutherford, and David Tarr, "Modelling Services Liberalization: The Case of Tanzania," April 2008.

Import duties are high and variable, taxes and fees imposed by different levels of government raise the costs of trading, and policies to compensate for high trade taxes are weak.

### Sudan's Tariffs are High and Variable

2.22 With a simple average tariff rate of 20.2 percent, Sudan's MFN tariffs are among the highest in the world and considerably higher than most countries in Africa and the Middle East, as shown in Table 2.3. Just over half of the products (tariff lines) in the tariff schedule are in the top two tariff bands—the 25 and 40 percent bands—and around one-third of imports by value are in these bands (see Figure 2-1).

**Figure 2-1. Distribution of Tariff Rates**



Source: DTIS team calculations using the 2006 tariff schedule and 2005 import data provided by Sudan Customs.

**Table 2.3. Sudan's MFN Tariffs are the Highest in the Region**

Reporter Name	Simple Average	Simple Average: Agriculture	Weighted Average	Maximum Rate	Coefficient of Variation	Share international peaks	Tariff Year
Egypt	19.6	66.7	13.7	3000	757	27	2005
Ethiopia	16.8	17.3	10.7	35	69	47	2006
Kenya	12.7	19.0	7.4	100	93	41	2006
<i>Sudan</i>	<i>20.1</i>	<i>30.7</i>	<i>15.9</i>	<i>40</i>	<i>75</i>	<i>52</i>	<i>2006</i>
Tanzania	12.7	19.0	8.7	100	93	41	2006
Uganda	12.7	19.0	10.4	100	93	41	2006
Yemen	7.1	10.2	6.9	25	62	4	2006
MENA average	12.2	20.3	7.6	3000	296	26	2006
SSA average	12.5	15.4	8.7	750	91	36	2006

Source: data from UNCTAD TRAINS and Sudan Customs.

Notes: Weighted averages for comparator computed using UN Comtrade trade data at the six-digit level of the HS; international peaks are tariff rates 15 percent or higher. Egypt introduced a new tariff schedule in 2007 that has significantly lower tariffs, but this schedule is not currently available in a format that allows statistical analysis.

2.23 In addition to being high on average, there is considerable variation across industries and stages of production, as shown in Table 2.4. Tariffs on final products are generally higher than on intermediate inputs, especially in agriculture and light manufacturing. High tariffs on imported inputs prevent local producers from sourcing inputs at the lowest-possible prices, undermining their ability to compete internationally and discouraging them from integrating in to global supply chains. High tariffs on final goods raise the prices of competing goods above world levels, thus encouraging local producer to supply the local market rather than selling internationally. In short, a tax on imports is effectively a tax on exports. High variation of tariffs across industries and stages of production distorts incentives to invest—investors allocate resources according to tariff policies rather than productivity—and impose greater economic costs on society than a more uniform tariff with the same average rate.

**Table 2.4. Tariff Escalation by Industry and Stage of Production, 2006**

Industry	Mean by Stage			All Stages		
	First Stage	Semi-finished	Final	Lines	Mean	S.D.
11 Agriculture	27.3		40.0	300	27.4	13.0
12 Forestry and Logging	18.8	40.0		44	19.8	12.4
13 Fishing	39.3	40.0		98	39.4	3.7
21 Coal Mining	10.0			6	10.0	0.0
22 Crude Petroleum and Natural Gas Production	10.0			8	10.0	0.0
23 Metal Ore Mining	3.0			23	3.0	0.0
29 Other Mining	10.7	3.0		75	10.5	5.5
31 Manufactured Food, Beverages and Tobacco	27.6	28.4	33.8	434	32.7	12.0
32 Textile, Apparel, and Leather	22.5	20.7	36.0	920	28.2	12.4
33 Manufactured Wood Products		36.8	33.9	82	35.1	11.4
34 Paper, Printing and Publishing	4.4	17.2	18.5	190	16.3	14.3
35 Manufactured Chemicals, Petroleum, Coal, Rubber, Plastics	6.3	5.7	19.7	1,105	9.7	12.4
36 Manufactured Non-metallic Minerals (except petroleum)	10.0	33.3	32.7	153	32.5	13.1
37 Basic Metal Industries	3.0	22.6	24.5	402	22.0	12.1
38 Manufactured Metal Products, Machinery and Equipment		25.0	14.3	1,440	14.5	12.8
39 Other Manufacturing	28.0	22.2	24.4	189	24.3	11.4
41 Electricity, Gas, and Steam			10.0	1	10.0	0.0
99 Other Industries (excludes HS99)	25.0	21.3	21.8	23	21.7	10.1
Average by Stage	22.6	15.7	22.3			
All products (excludes HS99)				5,493	20.1	15.0

Source: DTIS mission calculations using tariff schedule provided by Sudan Customs.

### Multiple Tariff Regimes

2.24 Sudan is still in the process of migrating to a single tariff schedule for all parts of the country. The preceding section describes the import duties collected by Sudan Customs. Goods crossing land borders in the South face duties set according to a pre-CPA

provisional order.<sup>32</sup> This schedule has nine positive rates ranging from 1 percent to 20 percent. It provides for export duties on agricultural products (1 percent), a list of other goods (with four different rates), and re-exports of finished materials and goods (at the rate of 30 percent). The schedule does not follow any international product classification system, so it is not possible to systematically compare these tariffs with the national government's schedule. Tariffs on textiles and garments are low (2–5 percent). Tariffs on food are designed to encourage food self-sufficiency.<sup>33</sup> The available information suggests that, in practice, these customs duties are not collected on all imports, so it is difficult to estimate the true economic effects of this tariff schedule.

### Other Taxes Raise the Costs of Trading

2.25 A number of government agencies at both local and national levels impose taxes, charges, and fees that raise the cost of international trade. Livestock face local fees and taxes as they move from locality to locality on their way to export (e.g., locality fees, jihad tax, pastoralists union tax, martyr tax, and wounded tax). Data compiled by the DTIS team finds that these can reach 33 percent of the FOB export price. Local taxes and fees charged on major export crops can also make up large shares of export prices: 17 percent for sesame and 15–20 percent for groundnuts (see Table 2.5). As will be discussed below in Chapter 3, manufacturers report paying a range of taxes and fees to national government agencies on imported inputs, which in turn reduce their ability to compete in export markets.

**Table 2.5. Taxes and Fees as a Share of Export Prices, 2006**

<b>Crop (variety, location)</b>	<b>Taxes as a share of FOB export price</b>
Cotton (Barakat, Gezira)	1%
Cotton (Acala, Gezira)	1%
Groundnuts (shelled, Gezira)	15%
Sorghum (Geriza)	4%
Sorghum (rainfed, Gedarif)	6%
Sesame (Sennar/Blue Nile)	17%
Groundnuts (El Obeid)	20%

*Source:* DTIS team calculations using value chain data collected in 2006.

2.26 The presence of these many taxes suggests the need for the rationalization of taxes imposed at different levels of government and by different government agencies. Streamlining import clearance processes and introducing a single window for border clearance could help reduce the burden of fees on international trade. In the short run, it would be useful to inventory all taxes, charges, and fees as part of the annual budget process. A more far-reaching fiscal federalism analysis of the correspondence between spending and revenue collection responsibilities at different levels of governments would

<sup>32</sup> The schedule of import and export duties is contained in a document titled Laws of New Sudan: Customs and Excise Duties (Provisional Order) 2000.

<sup>33</sup> “The citizens are expected to produce their own food—so food importation should be discouraged.” Laws of New Sudan: Customs and Excise Duties (Provisional Order) 2000, page 9.

help policymakers ensure that decentralization of fiscal authority enhances both national economic integration and international competitiveness.

### **Export Incentive Schemes: Do They Overcome the Anti-export Bias?**

2.27 As discussed above, import barriers create a bias against exporting. Sudan does not provide fiscal incentives specifically targeted at exporters. There are a number of tax exemptions and incentives aimed at promoting investment and production activities in a number of “strategic” sectors, however, many of which are engaged in exporting. Their success at overcoming the perverse incentives in the tariff regime and other tax systems has been mixed.

2.28 **Free zones have had limited success.** Export processing zones (EPZs) have been useful for promoting exports in countries with high trade barriers, cumbersome business regulations, and weak infrastructure. An EPZ regime that is properly implemented can attract foreign direct investment, boost employment, stimulate export and economic growth, transfer knowledge and skills to the local community, and facilitate export development that contributes to a higher level of infrastructure and services within a country.

2.29 Under the Free Zones Act, companies established in the zones do not have to pay import duties on raw materials or intermediate inputs. They are exempt from corporate tax for 20 years, and are free from restrictions on foreign ownership and repatriation of capital or profits. There are currently two EPZs in Sudan, both in the North, known as “free zones.”<sup>34</sup>

- the Red Sea Free Zone, set up in 2000 and located 38 km south of Port Sudan
- Garry/Al Gaili/Garri Free Zone, established in 2005 and located 60 km north of Khartoum

2.30 These are managed exclusively by the Free Zones and Market Company, which is a public company created in 1993 and regulated by the 1994 Free Zones and Free Shops Act. This act grants the Free Zones Company a monopoly to set up and administer the free zones and duty free shops across the country.

2.31 So far, the two free zones have had very modest success in attracting foreign investment and promoting exports. Since it was open in 2000, few companies have set up shop in the Red Sea Zone, most of them concentrated in the service sector. Most companies currently operating in the zone are wholesale traders, which take advantage of the possibility of duty-free storage areas before distributing the products in the local market.

2.32 The Sudanese free zones do not provide services or incentives attractive enough to lure companies to set up within their premises. The quality and level of infrastructure provided in the zones is not better than in the rest of the country. It is reported that the Red Sea Free Zone is experiencing problems with the supply of water and electricity. At the same time, one of the key planned incentives to attract firms inside the Red Sea Zone,

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<sup>34</sup> The GoSS Ministry of Commerce, Trade and Supply (MCI) has discussed creating an industrial zone.



the construction of a port inside the zone has not been accomplished due to financial constraints, so investors still have to use Port Sudan for shipping and bringing in their goods. Moreover, the national Investment Promotion Act extends most of the tax exemptions and other incentives offered in the zones to all industrial activities throughout the country and even expanded some of them.<sup>35</sup>

2.33 The motivation and objective of the free zones are no longer clear. The government and business community should reconsider the zones policy and how free zones fit into national and regional development strategies. This will require updating the legislation and building consensus among relevant public and private sector stakeholders. In this regard, there needs to be much greater private sector involvement in the management of the Free Zones, including breaking the monopoly of the Free Zone Company as the sole firm running them. There also needs to be greater coordination with other public sector agencies and organizations to ensure that issues affecting the Free Zones, such as access to utilities, acquisition of permits and other concerns are dealt with in an effective manner.

- Free zones seem to be treated as de-facto bonded warehouses; rethink these in context of customs reform recommendations;
- Harmonize incentives offered under the Investment Promotion Act to operations inside the Zones; and
- Terminate the monopoly of Free Zone Company to manage the Free Zones, so that other companies can also set up and manage Export Promotion Zones.

2.34 **VAT is refunded slowly.** As in most countries with value-added tax systems, exports from Sudan are exempted from VAT, and exporters are eligible for refunds of VAT paid on imported inputs used to produce these exports. However, many exporters interviewed report that refunds take on average four months to be received since they are filed. These delays in refunding VAT paid on imports acts as a tax on exports to the extent that they tie up firms' working capital, and thus they reduce Sudan exporters' ability to compete in world markets.

2.35 Improvements to speed up VAT refunds are typically based on risk-management systems, relying on market-based, rather than command and control systems. They could involve requiring a bond or special back deposit to cover the refund request until the tax administration has reviewed it, or accepting only refund claims certified by chartered accountants. Looking to best practices among developing countries, further lessons may also be drawn from examples that reduce capital tie-up in taxes and streamline operations for companies with a good track record by delaying VAT or allowing them a discretionary requirement to post a bond.

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<sup>35</sup> For example, manufacturing companies are allowed to import some duty-free vehicles under the Investment Act for conducting their operations, but this is not contemplated in the Free Zone Act.

## **TRADE PROMOTION BODIES**

2.36 Two trade promotion bodies are active at the national level: Sudan Trade Point and the Sudan Trade Information Center.<sup>36</sup> Both focus on providing information on markets and trading opportunities to potential exporters and importers. The Sudan Trade Point (STP) is the more successful of the two bodies. There is a dearth of trade promotion bodies in Southern Sudan, where they are greatly needed due to the lack of well-established connections to foreign buyers and sellers. Donor support is needed to improve the state of trade promotion bodies throughout the country.

### **Sudan Trade Point**

2.37 The Sudan Trade Point (STP) is the more successful of the two institutions. STP is an information center set up in 2001 with support from UNCTAD and housed under the Ministry of Foreign Trade. STP is a member of the World Trade Point Federation, with headquarters in Geneva. The center performs three functions: trade information services, trade facilitation services and trade promotion services. It provides information about investment, trade opportunities, procedures and legislation in Sudan through the internet, connecting potential exporters and importers with their counterparts, and posting detailed data on commodity prices and quantities. One of their main assets is the information provided by 76 databases from Trade Points all over the world.

2.38 Sudan Trade Point is staffed with about 30 workers, of which 20 are specialists and operational officers, and the rest support staff. It also operates five branches established throughout the country, and seven other offices are in the process of being set up but are not yet operational. One of the planned new offices will be located Southern Sudan. Overall, the STP provides valuable services, helping small and medium exporters to access trade information and market opportunities, which should be supported and enhanced to enable it to become a fully operational and equipped center. The areas where the STP requires financial support in the form of equipment, technical assistance and training.

### **Sudan Trade Information Center**

2.39 The federal trade ministry also operates a small Trade Information Center (TIC), which was created many years ago with support from the International Trade Centre (ITC) in Geneva. It provides information about opportunities in international markets for potential Sudanese exporters, publishes a trade directory (the last one in 2003/04) with contact information of Sudanese exporters and importers. Up until mid-1990s, when the TIC was financially sustained by ITC, it was very active organizing seminars and workshops, conducting market studies, and sending exporters to international fairs. Unfortunately, when donor funding stopped most activities were halted.

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<sup>36</sup> Several private and public sector institutions provide services designed to promote exports. Among these are the Chamber of Commerce and the Ministry of Industry's Industrial Finance and Export Development unit. This section of the DTIS focuses on the two classical trade promotion bodies, the Trade Information Center and the Sudan Trade Point.

2.40 Currently the TIC is under-funded and under-staffed, equipped with old computers and low-capacity internet server. It employs ten staff members, of which only three are professionals, who ran very limited activities. It houses a small library and a lab equipped with some computers. The present status of the TIC is not adequate to provide the type of services it is meant to do. In view of this situation, the ministry should consider merging it with an expanded Trade Point. Accomplishing this would require legislative reforms, since the two bodies were established through separate laws, as well as capacity-building and other institutional strengthening.

### **Export Promotion in Southern Sudan**

2.41 There are currently no dedicated trade promotion bodies in Southern Sudan. The Ministry of Commerce and Industries (MCI) presently lacks the capacity to develop full-fledged trade promotion programs. At the time of the DTIS missions, the supply of qualified officers to fill the needed operational positions. In addition, the ministry lacks basic data and information about companies and economic activities in the region. Conversations have been initiated between the STP in Khartoum and the MCI to set up an office in Juba. This would go a long way to link South Sudan with the rest of the country, making available information about trade and investment opportunities in the region. It is thus important that the opening of an STP office in Juba be given priority.

### **Recommendations**

2.42 Recent research on trade promotion bodies (TPBs) provides some guidance for Sudan. Even though most TPBs are publicly funded, they require strong representation of the private sector in their executive boards to operate effectively.<sup>37</sup> Moreover, the proliferation of small agencies or institutions within a country tends to reduce their effectiveness in promoting trade. Overall, the most successful cases of TPBs are those that focused their activities on large firms (which can take advantage of TPBs services) and firms that specialize in non-traditional exports or are not yet exporters, or have some broad sector focus (e.g., agriculture, manufacturing, tourism). Also TPBs tend to be more efficient when they are shared with other activities such as investment promotion, or export financing under an umbrella type organization. They should also focus their activities on on-shore export support services rather than country image or marketing and market research activities. Finally, research indicates the presence of TPBs offices in foreign markets does not appear to help exports from developing countries, thus reinforcing the focus should be on on-shore activities.

### **NEGOTIATING WTO ACCESSION: HOW CAN MEMBERSHIP INCREASE INTEGRATION?**

2.43 Joining the World Trade Organization provides an important avenue for greater integration of Sudan into the global economy. Membership adds certainty and transparency to the policies faced by Sudanese exporters as well as foreign companies wanting to do business in Sudan. Membership gives the country access to an impartial, rules-based

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<sup>37</sup> Daniel Lederman, Marcelo Olarreaga, and Lucy Payton, "Export Promotion Agencies: What Works and What Doesn't," Policy Research Working Paper 4044, Washington: World Bank, 2006.

dispute settlement process. As a member, Sudan will have a seat at the table as world trade rules are negotiated. Finally, and perhaps most importantly, the process of accession itself can reinforce the country's economic policy reforms. This section reviews the status of Sudan's accession negotiations and proposes ways that the country can maximize the benefits from accession.

### **Where Does Sudan Stand in the Accession Process, and What's Left to Do?**

2.44 Sudan has completed the early stages of the accession process. It has submitted the basic fact-finding documents, initial offers of proposed tariff bindings and service sector commitments to its working party, as well as all of the action plans for legislation and for implementation of other measures necessary for accession. The working party of WTO members that is considering Sudan's accession has met with Sudan twice (in July 2003 and March 2004). A third meeting was initially scheduled for October 2004. This was postponed indefinitely.

2.45 Once WTO members agree to resume formal discussion of Sudan's accession, Sudan will need to negotiate bilateral market access agreements with members of the working party. Based on other acceding countries' experiences, discussions on Sudan's compliance with WTO rules will occupy more time than market access negotiations. WTO rules now affect a wide range of issues, and WTO members expect considerable documentation to demonstrate compliance. Issues that commonly attract attention from WTO members include intellectual property rights protection, banking regulations, state-owned enterprises, regulations affecting importing and exporting, special economic zones, and customs procedures. Some WTO members will very likely request changes in Sudan's domestic sugar policies. In summary, a considerable negotiating agenda remains in place.

### **How Will WTO Accession Benefit Sudan?**

2.46 Membership in the WTO will provide Sudan with a more favorable environment for its exports. Although tariffs faced by Sudan's exporters will not change as a direct result of membership, their access to foreign markets will be more secure. As a member the tariffs, policies, and regulations applied to Sudan's exports will be governed by WTO rules. Other WTO members will be constrained from raising tariffs on Sudanese products or otherwise reducing Sudan's access to their markets. By contrast, as long as Sudan is outside of the WTO system, any importing country is free to apply the rules it wishes. Membership can help Sudan negotiate more favorable market access. Although most of the products that Sudan current exports face relatively low customs duties, there are some important exceptions, such high MFN tariffs on sesame in Korea and on cotton in China. As a WTO member, Sudan will have stronger standing to push for reductions in these tariffs. Sudan will also be able to participate in negotiations to reduce trade-distorting agricultural subsidies provided by WTO members, notably U.S. subsidies for cotton, which undermine income received by Sudanese cotton growers.

2.47 WTO accession negotiations provide a useful opportunity to reform policies and build institutional capacities that can help promote its international competitiveness.

- Goods imports: A more uniform tariff structure with lower rates, that is implemented throughout the country, and that eliminates other duties and charges (ODCs) would enhance economic competitiveness.
- Services: Liberalization commitments in banking, telecoms, transport, and distribution services would signal a commitment to maintaining current policies that provide an open market for FDI in these sectors.
- Agricultural subsidies: Shifting government support for agriculture to research and extension and away from price-distorting subsidies would improve productivity and rural incomes.
- Trade rules: In implementing trade rules, Sudan give priority to areas where this would reduce trade costs and improve private sector's capacity to penetrate foreign markets customs and SPS.

2.48 **Use market access negotiations to rationalize trade taxes.** Sudan is under no obligation to reduce import duties as a condition of WTO membership. Nevertheless, accession negotiations present a good opportunity to rationalize taxes imposed on international trade. To comply with GATT Article VIII, Sudan needs to eliminate any fees and charges other than ordinary customs duties that are imposed on trade and are not based on the cost of rendering a service, however, such as ad valorem fees. The Commission for WTO Affairs has already begun the process of identifying and eliminating many of these. Maintaining a public inventory of these fees would increase transparency of the trade regime.

2.49 The accession process also presents an important opportunity for national discussion on a single tariff schedule that would be applied throughout the country. Coming to consensus on customs duty rates will require building capacity in the federal and GoSS trade and finance ministries to compile, share, and analyze trade data.

2.50 Sudan has submitted a tariff offer, i.e., a schedule of tariff rates above which it will not raise its customs duties (known as “bound tariffs”). As an LDC, Sudan has the flexibility bind tariffs higher their currently applied levels. The two LDCs that have joined the WTO since its inception both bound their tariffs substantially above applied rates for most goods. As Sudan's MFN tariffs are quite high, the government might consider using the accession process to bring tariff rates down to levels applied in most other developing countries.

2.51 **Use the services offer to solidify openness to FDI in services.** Recent international experience shows that export competitiveness depends on firms' access to backbone services—financial, telecommunications, transportation, and distribution services—at low cost and high quality. FDI in these sectors contributes to greater competition. In recent years, Sudan has liberalized FDI policies at the national level. Including commitments in these sectors in its WTO accession services schedule would send an important signal to potential investors.

2.52 It could also be beneficial for Sudan to identify in its services offer GoSS regulations in areas where the CPA gives authority to the GoSS to implement policies distinct from the national government, such as in banking. GoSS and state governments' policies

are not reflected in the initial services offer.<sup>38</sup> A country is free to restrict commitments to only certain parts of the country or to include commitments that vary by jurisdiction, an approach that some countries with federal political systems follow in their WTO services schedules. The GoSS has been promoting Southern Sudan as a destination for FDI; including commitments in selected sectors would reinforce these efforts.

2.53 Sudan's negotiators should pay close attention to special and differential treatment provided to developing countries related to FDI in the service sector. According to GATS articles IV and XVI, developing countries, particularly LDCs, are allowed to use performance requirements in access to technology, information channels and distribution network. Sudan's offer to WTO in services refer to performance requirement for training, including training in technology, but a reference to "access to [transfer of] technology," information channels are missing. Access to technology will be important, in particular, in engineering services, and other services, related to the oil industry.

2.54 **Use accession negotiations to redirect agricultural support to long-term development.** A large share of the support the national government currently provides to the agriculture sector takes the form of market price supports that do not necessarily contribute to increasing long-run agricultural productivity, particularly that of traditional agriculture.<sup>39</sup> Although the WTO Agreement on Agriculture excludes LDCs from the obligation to reduce subsidies for agriculture (Article 15), WTO members nevertheless may request that Sudan adjust the level or form of subsidies. First, WTO members routinely request candidate countries to make commitments above and beyond the letter of WTO agreements (known as "WTO-plus commitments").<sup>40</sup> Second, Sudan currently provides subsidies above levels common in other LDCs. On legal grounds, Sudan can appeal to both the 1994 Agreement on Agriculture and the 2004 WTO ministerial declaration on LDC accessions as grounds for making no changes to its current agricultural policies. An alternative negotiating response, if WTO members insist on reductions in subsidies, would be to replace support programs that distort trade, such as price controls or payments tied to levels of production or trade, with so-called "Green Box" measures. These are policies that are not considered to distort trade flows and are therefore not subject to reduction in any country.<sup>41</sup> On economic grounds, Sudan's best response would be to use

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<sup>38</sup> For example, the services offer states that banking and insurance are delivered in accordance with Islamic Sharia law, which is true in northern states. It is not uncommon for WTO members with federal political systems to specify different commitments for different sub-national units.

<sup>39</sup> Market price support programs in cotton, sorghum, sugar, and wheat make up one-quarter of the value of agricultural support computed by the Commission for WTO Affairs. The remainder includes tax exemptions, land rent support, transfers to state governments for agricultural development, and a program to distribute gum arabic seedlings. Sudan's reports to the WTO also include export subsidies for sheep of SD 350–380 per head to defray marketing costs. Commission on WTO Affairs, "Accession of Sudan: Domestic Support and Export Subsidies in Agriculture," October 2006.

<sup>40</sup> Although they did not reduce subsidies, both Cambodia and Nepal—the only LDCs that have completed the accession process to date—committed to keeping future domestic subsidies below the *de minimis* level. Cambodia additionally committed to bind export subsidies at zero.

<sup>41</sup> The Green Box includes general support services, such as extension services, research and training, pest and disease control, quality control and health and safety inspection, marketing services, infrastructural development, provision of water supplies, etc. Even direct payments to producers are treated as Green Box measures if they are not linked to production or if they are an integral part of development strategy for agricultural and rural development, such as investment subsidy or agricultural input subsidies generally pro-

the accession process as an opportunity to reshape agricultural policies to encourage greater productivity, e.g., through increased support for research and extension programs, and increase the efficiency of domestic markets. The need for increased agricultural research discussed in the agriculture section in Chapter 3.

**2.55 Use the accession process to reform customs administration and reduce trade costs.** Members of the business community identify bottlenecks in clearing imports and exports as major business constraints. The need to comply with WTO rules on customs administration provides an opportunity for the country to undertake comprehensive customs modernization. This would benefit the economy by reducing the costs of conducting international trade.

**2.56** WTO rules impose four basic obligations on member countries' customs administration:

- Members must provide freedom of transit to each other (GATT Article V).
- Members must value imports based on the price paid or payable in the market rather than using arbitrary or fictitious values (Article VII).
- Any fees or charges (other than ordinary customs duties) that members impose on traded goods must be limited to the cost of providing a service; they cannot be used as a tax instrument (Article VIII).
- Members must publish all regulations, laws, judicial decisions, etc. and provide independent tribunals for appealing customs decisions (Article X).

**2.57** As will be discussed in the customs section of Chapter 4, Sudan's current customs administration does not yet fully comply with these rules. Customs modernization means much more than merely complying with WTO rules, however, and is an essential ingredient in improving Sudan's competitiveness (as well as fiscal management). The accession process could be a useful lever for customs reform, which would include bringing the entire country under a single customs administration and introducing risk-based selection, among other reforms.

**2.58 Use accession negotiations to improve standards capacity for export products:** As Sudan seeks to expand its agricultural and food exports, it will increasingly face more stringent regulations and private standards applied in foreign markets. Sudan's access to world markets is dependent on producers being able to comply with these standards, in both industrial and developing countries. As will be discussed below in the section on agriculture, Sudan's livestock exports depend critically on the ability to satisfy foreign veterinary regulations.

**2.59** As a candidate for WTO membership, Sudan must bring the regulations and standards it imposes on imports into compliance with WTO agreements on technical barriers to trade (TBT) and sanitary and phytosanitary measures (SPS).<sup>42</sup> The government will

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vided to the agricultural sector. Direct payment for limiting production of specific products comes, under certain conditions, under Blue Box measures-permitted by WTO rules.

<sup>42</sup> These recognize the right of countries to restrict imports when necessary to protect human, animal or plant life or health. But these agreements limit exercise of that right to measures that do not discriminate

need to update laws, strengthen transparency mechanisms (i.e., the enquiry and notification points), make technical regulations compatible with international standards, and develop procedures for recognition of “equivalent” standards. Sudan should use the need to undertake these reforms as an opportunity to develop exporters’ capacity to meet importing countries’ standards.<sup>43</sup>

## IMPROVING SUDAN’S TRADE POLICY-MAKING CAPACITY

2.60 **Sudan faces an unusually fragmented trade policy-making process.** EPA negotiations, WTO accession, and membership in FTAs involve many of the same issues, but different federal government bodies are involved in these negotiations, primarily the MoFT and the Commission on WTO Affairs. In addition, the GoSS has autonomy to set many of the policies that are the subject of COMESA, WTO, and bilateral trade agreements.

2.61 Even if a single agency handled all trade negotiations, international trade agreements increasingly incorporate commitments on wide range of issues traditionally considered to be domestic policy, such as intellectual property, quality and health standards, agricultural support, and competition policy. A wide range of federal and GoSS agencies exercise authority over these issues. Intellectual property is handled by the Ministry of Justice (patents), Ministry of Culture (copyrights), and Sudan Customs (seizing counterfeit items at the border). Implementing the WTO SPS and TBT agreements will require participation of the ministries of agriculture, industry, science and technology, animal resources, and health in both Khartoum and Juba, as well as the Sudanese Standards and Metrology Organization (SSMO). The Bank of Sudan and MoFNE set macroeconomic policies (including the exchange rate) and regulate the financial services sector. Each sector included in international services trade agreements, ranging from transport to telecommunications to audio-visual services, is governed by its own set of regulatory bodies.

2.62 Countries need well-organized and capable trade policy institutions to use trade as engine of economic growth and poverty reduction. Good inter-ministerial coordination is the *sine qua non* of an effective trade strategy since international trade does not fit into the mandate of a single ministry. In order to strengthen and upgrade the participation of the stakeholders in policy making and implementation, to clarify the division of labour among various entities, to make the coordination process more effective and to improve accountability, there is a need for organizational and institutional changes and upgrading. This can be done, e.g., by establishing a “Consultative Economic Council” at a high level under the chairmanship of the president/vice president and membership of all stake-

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between WTO members, that do not treat imports less favorably than domestic products, and that are not disguised restrictions on trade. Members must notify others of all new draft standards and technical regulations, allowing others time to comment. The agreements further obligate members to impose such restrictions only to the extent necessary to protect life and health, and base them on scientific principles. The ultimate objective of these agreements is to facilitate trade in safe products and screen out only trade in harmful products.

<sup>43</sup> A comprehensive program for upgrading Sudan’s SPS capacity to facilitate exports is presented in Gregory Sullivan, “Sanitary and Phytosanitary Standards for Sudan,” March 2007.



holders including various government ministries and institutions concerned with trade, representatives of GoSS, state governments, the private sector.

**2.63 Improve government engagement with the business community and civil society.** The representatives of the private sector participate in a number of forums, such as the Strategic Planning Commission, WTOAC, Export Development Council, currently attached to the Ministry of Foreign Trade (MoFT), and various councils for specific industries or sectors (except transport), or products (MoFT). On the basis of the discussion with the Federation of Chambers of Commerce, the meetings are often sporadic and take place on *ad hoc* basis for “fire fighting”; the private sector is not involved in a dialogue for trade policy making as there is no consistent trade policy and predictable strategy.

**2.64** Improving the business environment and stimulating exports requires not just one-time creation of new forums but a process of continuous improvements in the operating environment. At the core of this ongoing process should be a regular institutionalized system of dialogue between the private sector and the government. When such a system works well, it can have dramatic results in promoting exports. Perhaps the best example is that of South Korea, where the drive to industrialize and expand exports, was led personally by the president himself, who chaired regular meetings and encouraged his ministers find solutions, where these were clearly needed, to remove obstacles to growth. In Sudan, the private sector seems to be well organized through the Industry Association and sub-sectoral chambers. However, public-private dialogue is not well organized, nor institutionalized. The government-sponsored National Export Development Council has to date not served effectively umbrella forum for candid discussions between the government and industry. Both the government and industry would benefit by learning from the experiences of other countries that have institutionalized public-private dialogue. Donors could assist by bringing to bear best-practice international experience, and also perhaps arranging for fact-finding visits to observe particular models operating elsewhere.

**2.65 Build private sector capacity.** Finally, both the public and private sectors must possess the capacity to identify constraints, whether foreign or domestic, which can be addressed through public policy and international trade negotiations. The negotiation skills of all involved in negotiation for the accession to WTO and other trade agreements, particularly the staff of the MoFT and the MCI, should be enhanced. A necessary condition for this is developing the knowledge of the trade rules and experience of other acceding, or negotiating, countries. In addition to enhancing its negotiating skills to deal with preferential trade agreements (GAFTA, COMESA, EPA, etc.), there is a need to strengthen the capacity of the Regional and Multilateral Unit of the MoFT in order to prepare itself for the implementation of WTO Agreements in areas related to the mandate of the Ministry.

**2.66** The private sector itself is handicapped by the lack of full awareness of the implication of the accession to WTO, membership in FTAs, and requirements of competitiveness in the world economy. Traders also need knowledge about various operational techniques of doing business and trade (e.g., documentation, export financing, e-commerce, etc.) market access information, marketing channels, quality requirements of importing countries (e.g., SPS/TBT requirement). The private sector in Southern Sudan

has enjoyed relatively little exposure to international commercial practices and would benefit from capacity building in this area.

2.67 As policy has to be formulated based on sound research and analysis, there is a need to integrate policy and research units at the MoFT and upgrade the combined units in terms of number and quality of staff, through training, and relations with other organizational unit of the ministry. This directorate should be responsible for all trade agreement dealt with by the ministry. This is essential as all trade agreements should benefit from, and be consistent with, a unified trade policy of the country.

2.68 To succeed, trade policy in general, including trade liberalization, should be based on a clear long-term strategy that broadly reflects interests of all sectors of the economy and regions of the country. For example the timing, the speed, and the degree of trade liberalization in each industry, in particular, should be such to render inefficient industries efficient and develop new ones. Further, both industrial support and liberalization should be accompanied with capacity building for provision of a host of other supplementary measures necessary for growth. Otherwise, the experience of trade liberalization in other developing countries, particularly low income ones, shows that it could lead to locking the country in production and exports of primary commodities and at best some assembly operations and simple labor intensive industries.<sup>44</sup>

2.69 **Trade strategy in Southern Sudan.** Economic growth and poverty reduction in the South depends critically on developing an internationally-competitive private sector. There is an urgent need to implement a trade strategy in Southern Sudan that both advances the region's development objectives and that is consistent with the power-sharing arrangements in the CPA. The national government has authority over setting tariff rates, negotiating international trade agreements, and implementing other traditional trade policy tools. This does not mean that the GoSS should play no role in trade policy, however. The MCI needs to play a larger role in setting tariffs and in trade agreements so that the trade tax regime better reflects the economic interests of the South. In addition, most aspects of trade promotion lie within powers granted to the GoSS under the CPA, and while multiple tariff policies run counter to international practice, it is quite common for sub-national jurisdictions of countries to have independent trade promotion policies. Finally, many of the constraints on the South's integration into the world economy stem from a range of supply-side deficiencies, such as inadequate infrastructure and poorly specified property rights. Addressing these obstacles is the responsibility of the GoSS.

## SUMMARY

2.70 This chapter examined market access constraints facing Sudan's exports and the capacity of Sudan's trade institutions to support an expansion of non-oil exports. The chapter finds that, apart from the U.S. economic embargo, Sudan generally faces low market access barriers. This will change as Sudan succeeds in diversifying into new markets and new products, however. Fast-growing economies in Asia impose high tariffs on

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<sup>44</sup> M. Shafaeddin, *Trade Policy at the Crossroads, the Recent Experience of Developing Countries*, (Basingstoke and New York: Palgrave, Macmillan, 2005).

some of the products that Sudan presently exports to other markets. Tariffs in many markets are higher on the more processed products that Sudan seeks to export. In the future, it will become more important for exporters to demonstrate that their exports satisfy the rules of origin in preferential trade agreements, particularly exporters in Southern Sudan who wish to penetrate COMESA markets. Sudanese exporters will benefit from efforts to expand existing preference programs (e.g., China and Korea's unilateral preferences for low-income countries) and reducing MFN tariffs in other developing countries.

2.71 Sudan launched an ambitious economic reform program in the early 1990s that reduced tariff rates, abolished quantitative restrictions, dismantled foreign exchange controls, and eliminated export monopolies. Compared to the pre-reform environment, Sudan trade regime is vastly more open to international integration. Compared to most other developing countries, however, Sudan's policies continue to impose important barriers. High import duties introduce disincentives to export. They raise domestic prices above world levels, making it more profitable to sell locally rather than export. They reinforce currency appreciation. And they discourage trade in intermediate inputs, which is a prerequisite for integrating the country into global supply chains—an approach many countries have followed to promote trade-led growth. Added to high import tariffs are the presence of a range of taxes, fees, and charges—some levied solely on imports, others on all goods as they move through the economy. These raise the costs incurred by exporters (and potential exporters) and reduce their ability to compete in world markets. Many of these will be discussed in more detail in Chapter 3.

2.72 WTO accession presents opportunities for Sudan to promote a trade strategy that increases non-oil exports and alleviates poverty. Services negotiations can promote greater FDI in key services sectors. Negotiations with WTO members on levels of agricultural subsidies provide the opportunity for internal discussions on redirecting agricultural support to areas that raise agricultural productivity and promote longer-term development of the sector. Similarly, the need to comply with WTO rules on customs and standards reinforce existing programs to modernize customs administration, streamline technical regulations facing imports, and increasing the capacity of exporters to meet foreign standards.

2.73 Finally, this chapter finds that more could be done to improve trade institutions so that they can enhance the economy's ability to capture the benefits of globalization. Trade promotion bodies lack adequate capacity to help the private sector find new markets. The trade policy-making process is fragmented, both within the national government and between the national government and the GoSS. A number of institutions already exist to promote government-business discussions on international trade, but these have not always functioned efficiently or provided a forum for developing a longer-range trade strategy.

### 3. SECTORAL CONSTRAINTS TO COMPETITIVENESS

3.1 Reviving and expanding agricultural exports needs to be a central objective of Sudan's trade strategy in the medium term. The country has a proven comparative advantage in a wide array of agricultural commodities, many of which are raised by the rural poor in traditional farming systems. Sudan also shows potential to move into higher value agro-food products. At the same time, the country needs to build an internationally integrated non-oil industrial sector. Sudan has succeeded in developing world-class sugar production with exports to Europe and Kenya, although most output is sold for domestic consumption. Unlike agriculture, Sudan's manufacturing sector has historically focused on the local market for both inputs and final sales. Although the domestic market may be large by regional standards, it will never offer the opportunities of the world market. To succeed both locally and internationally, Sudan's manufacturing firms will need to integrate into global supply chains.

3.2 This chapter examines constraints to trade at the sectoral level in agriculture and manufacturing.<sup>45</sup> The chapter illustrates constraints and opportunities facing Sudan in using trade to advance its economic development objectives. This examination is not intended to provide a comprehensive review of the economy, nor do the sectors discussed here necessarily represent the only products with export potential.

#### AGRICULTURE<sup>46</sup>

3.3 Increasing the exports of agricultural products is critical to reducing poverty and supporting economic growth in Sudan. Agriculture historically generated the bulk of Sudan's foreign exchange earnings through a diversified basket of exports that includes cotton, gum arabic, livestock, sesame, and a number of smaller commodities. The sector provides employment for about 70 percent of the country's population, generates around one-third of total GDP, and provides inputs to many major manufacturing industries (e.g., edibles oils, leather, and sugar). Several of the major exports (e.g., sheep and gum arabic) are produced in traditional rain-fed areas and provide critical sources of income for the rural poor.

3.4 Although agriculture continues to provide the majority of export revenue outside of the oil sector, growth in recent years has been tepid, and the real value of exports remains below levels enjoyed in the 1960s and 1970s. Exports of most goods are concen-

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<sup>45</sup> The DTIS team was not able to investigate services exports. This should not be read as a conclusion that Sudan has no potential to export services. The country already enjoys success in certain niches (e.g., Kenana exports technical services). And there is clear potential for larger-scale services exports, such as tourism (scuba diving off the Red Sea coast, pyramids along the Nile, and game parks). A detailed examination of services exports must be left to the future.

<sup>46</sup> This section is based on findings presented in Hamid Faki, "Agricultural Productivity in Sudan" (December 2006); Gregory Sullivan, "Sanitary and Phytosanitary Standards for Sudan" (March 2007); and Jack van Holst Pelekaan, "Sudan DTIS: Trade in Agricultural Products" (August 2007).

trated in few foreign markets, making them vulnerable to disruptions. The sector suffers from low productivity and high marketing costs. These factors exacerbate the loss of export competitiveness caused by the appreciation of the Sudanese currency. Addressing these constraints will require investments in research and extension, rationalization of taxes and fees, improved trade promotion institutions, and policy reforms to make agricultural markets work more effectively.

## **Overview of Agriculture Trade and Production**

3.5 Unlike most other LDCs, Sudan enjoys a well-diversified basket of traditional agricultural products. Many of these products enjoy international reputations for high quality, most notably sesame seeds, sheep, gum arabic, and extra-long staple cotton. Reflecting different patterns of current production and future export potential, this overview examines North and South separately.

### ***Agriculture Exports from Northern Sudan***

3.6 *Cotton:* Cotton was Sudan's dominant export during the colonial period and remained so until the 1980s. The majority of cotton is grown in the Gezira Irrigation Scheme. The commercial cotton sector was created to supply the British textile industry. Egypt now buys the bulk of Sudan's cotton. Export values have declined substantially since the 1960s and 1970s, as shown in Figure 3-1.

3.7 *Oil seeds:* Sesame was historically Sudan's second largest export. Over the past decade it has usually been the leading non-oil export, and Sudan has been one of the world's largest suppliers. Groundnuts were for a time a significant export, but have dropped to virtually nil in the past five years as farmers have shifted into other crops. Foreign demand for Sudanese groundnuts declined after some groundnut shipments to the EU were rejected due to aflatoxin contamination. Sesame is mainly produced in the semi-mechanized farming system, while groundnuts are produced mainly in the traditional rainfed farming areas.

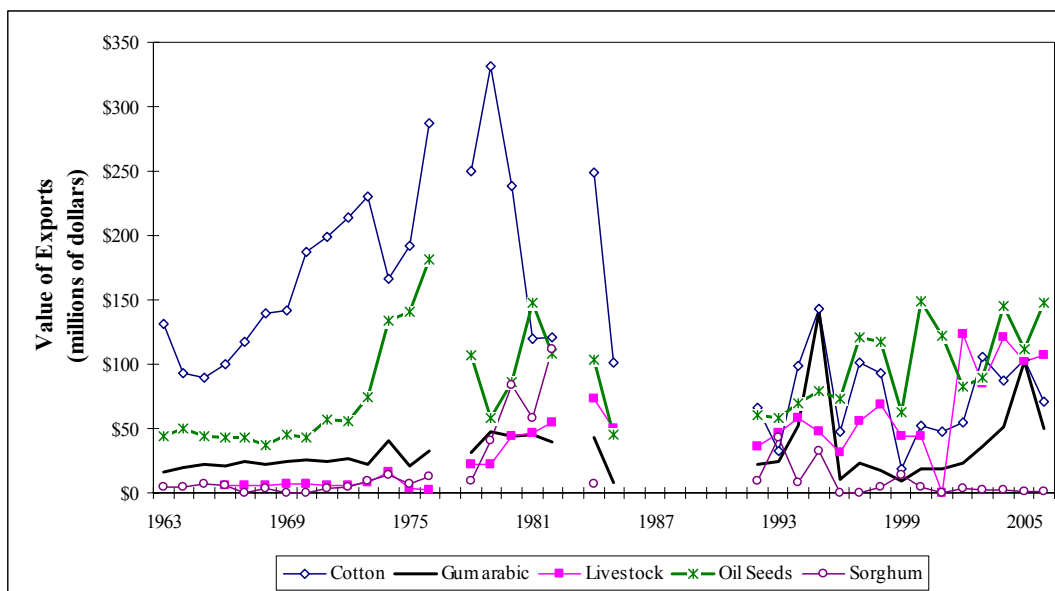
3.8 *Gum arabic:* Sudan is the world's largest producer and exporter of gum arabic, a multi-purpose product used inter alia as an emulsifier in the food industry across the world. Sudan held as much as 80 percent of the world market in the 1950s. Declining domestic production, competition from Nigeria and Chad, and deleterious effects of the export concession granted to the Gum Arabic Company are eroding Sudan's market share. Income from gum arabic becomes most important during droughts when crops have failed but gum arabic can still be produced. Acacia trees also fix nitrogen in the soil, provide excellent shade and forage, and act as a barrier to wind and water erosion.

3.9 *Livestock:* Live sheep exported to the Saudi market make up most of livestock exports. Camel, cattle, and goats are also exported to regional markets. Animals are raised by smallholders and typically walked to urban markets before being transported to Port Sudan. Exports ceased in 2001 after disease outbreaks prompted Saudi Arabia and neighboring countries to ban imports. New bans were introduced in November 2007 after an outbreak of Rift Valley Fever.

3.10 *Meat*: Sudan currently exports some meat—e.g., beef to Egypt and sheep meat to Saudi Arabia—but has not yet the potential to move out of live animal exports and into meat offered by its large livestock population and proximity to regional markets. Slaughterhouses currently operate as custom operations that mainly supply the domestic market. The country will need to invest in export-oriented facilities that can consistently deliver meat that meets more stringent quality and hygiene standards in foreign markets.

3.11 *Sorghum*: Many of the early plans for the development of semi-mechanized farming in Sudan were designed to produce sorghum for export to Saudi Arabia and Gulf countries.<sup>47</sup> Large investments in semi-mechanized farming generated substantial exports of sorghum to the Middle East in the 1970s, but these exports have not been sustained.

**Figure 3-1. Exports of Major Agricultural Commodities, 1963–2006**



Source: Data reported by the Sudanese government to UN Comtrade.

Note: Products are defined using the SITC Rev. 1 classification. All values are nominal, i.e., not adjusted for inflation.

3.12 Although agricultural exports are diversified across several commodities, exports of each individual commodity tend to be concentrated in a few foreign markets, all within the region. Sheep exports go almost exclusively to Saudi Arabia (see Appendix Table B.2). Cotton is shipped overwhelmingly to Egypt (see Appendix Table B-1), sesame oil to Saudi Arabia and the UAE. Sesame seed exports are somewhat less concentrated: China is a large buyer (Sudan's largest in 2005), although Saudi Arabia, Egypt, and other countries in the region typically import the majority of Sudanese sesame (see Appendix Table B-3). When sorghum was exported, most of it went to Saudi Arabia. Gum arabic is the principal exception: it is exported to Europe, Japan, and the U.S.<sup>48</sup>

<sup>47</sup> In the 1970s Sudan was identified as the future bread basket for the Gulf countries because of its undoubted capacity to produce large quantities of sorghum in the semi-mechanized farming areas.

<sup>48</sup> Gum arabic is the only product that the U.S. excludes from its economic embargo on Sudan.

3.13 The concentration of export markets stems in large part from the cost of developing new trade relationships. Sudanese traders have established traditional relationships within the region that are cemented by common language and by banking systems that facilitate negotiation, transactions and the resolution of disputes. The U.S. economic embargo tends to reinforce these relationships by severely constraining dollar-denominated transactions through Western banks, such as letters of credit and commercial guarantees. This has discouraged trade with companies in Europe, Canada, and elsewhere that rely on services from these banks.

### *Agriculture Exports from Southern Sudan*

3.14 Data on current agriculture production and trade in Southern Sudan are practically nonexistent. Even mirror trade statistics (i.e., use of import/export data reported by trade partners to estimate Sudan's exports/imports to those countries) are of limited use since much of the trade appears to have been conducted informally and not recorded by partner country governments. The available information suggests that, although Southern Sudan has historically been a net importer of agricultural products, the region has an outstanding natural resource base for the production of livestock and a wide range of annual crops (grains, fruit and vegetables), tree crops (coffee and tea), and forest products. But taking advantage of this potential will depend on making major improvements in productivity and marketing infrastructure such as roads, river transport and airports. The qualitative trends in trade are outlined below.

3.15 *Livestock:* In the past cattle were sold to Uganda and Kenya, but insecurity within Southern Sudan and along the borders has put a temporary stop to these market outlets. Southern Sudan currently imports meat from Uganda and sells cattle in markets in northern Sudan. But regardless of the final market location, prices received are discounted because animals are usually in poor condition and at risk of carrying serious diseases. These constraints on livestock marketing need to be urgently addressed.

3.16 *Food crops:* Rising populations and incomes in major cities and towns have resulted in a steady increase in the demand for food in Southern Sudan. High marketing costs caused by very poor, often non-existent, infrastructure within Sudan has meant that much of the increased demand for food crops in the growing urban markets have been met by imports from countries nearby. For example, supplies of basic grains and flour, sugar, vegetables and fruit, as well as some fish, are sold in markets such as Juba and Yei are typically imported from Uganda and Kenya.

3.17 *Forest products:* Timber and forest products were exported in the past. Continued exports of logs to Uganda and other COMESA countries is a possibility, but domestic demand—for lumber such as teak and mahogany from northern Sudanese furniture makers and for construction purposes in the South—has outstripped foreign demand. Therefore, unless there is more domestic processing of into high-value export products (such as wood flooring) large export volumes from Southern Sudan are unlikely.

3.18 Future prospects for larger incomes from the cattle industry in Southern Sudan requires improving animal nutrition, controlling chronic diseases, reducing the age of tu-

m-off, and making more efficient use of rangelands. Sales of livestock to the North through markets such as Kosti and Omdurman indicate that producers in Southern Sudan can compete successfully if the disease problems can be successfully addressed.

3.19 Prospects for crop exports will also depend on substantial increases in productivity and better infrastructure such (transportation and communications) so that domestic producers can first increase production to compete against imports in domestic markets and then later expand to export markets. Generally, these conditions for growth in exports depend on public sector investment in infrastructure, investment in research and support services to the agricultural and livestock producers (by both public and private sectors). It will be some years before these pre-conditions exist in Southern Sudan and a comparative advantage for agricultural products has been achieved.

### ***Horticulture in North and South***

3.20 The main fruits exported from Sudan so far are mangos, grape fruit, bananas, melons and lemons. Vegetables are mainly green beans, onions, and sweet peppers. In 2001 and 2002 the share of the value of fruit and vegetables in value of Sudan's total agricultural exports was about 2 percent, but the proportion had declined to 0.5 percent by 2004. It is understood that the decline has continued and is due to marketing requirements in the Gulf countries that cannot be met by Sudanese exporters.<sup>49</sup>

3.21 Horticulture represents an as-yet untapped export opportunity for Sudan. With adequate moisture and fertilizers, fruits and vegetables can be grown throughout Sudan. The potential for growing large quantities is greatest in the vast irrigated areas along the Nile, and in areas where there are large reserves of underground water and good soils such as in Darfur. Irrigated areas have an additional advantage in their closer proximity to international air and sea transportation.

3.22 Regardless of the location, the main constraints facing the production of fruits and vegetables are weak technologies, characterized by lack of improved seeds, low yield, lack of uniformity in output, and poor post harvest operations. If research and extension services could be improved, producers would probably be able to improve technologies and hence the economics of production, and deliver reliable quantities of uniform quality meeting the high standards demanded in all markets.

3.23 In addition, potential horticulture exporters face greater market information constraints than do exporters of traditional agricultural commodities. Consumer preferences, seasonality, government SPS regulations, standards maintained by retailers (on quality, packaging, etc.) all vary widely across markets and over time within markets.

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<sup>49</sup> Local producers have typically sold products to agents for sale in international markets without letters of credit. The risks for this sort of trade are obviously high. In 2006, losses were incurred by local growers on a recent consignment who received no net revenue from sales after all costs had been deducted.



## Analysis of Factors that Undermine Competitiveness

3.24 The biggest constraints on agricultural exports are domestic: low and declining productivity, and high marketing margins, caused by a range of factors including high transport costs (particularly at Port Sudan) and a proliferation of taxes and fees. The inability to comply with foreign food, plant, and animal safety standards is at times the binding constraint on certain exports (e.g., live animals). The recent appreciation of the Sudanese currency has shifted sales to domestic buyers.

3.25 **Low and declining productivity appears to be the major factor explaining the declining competitiveness of traditional agricultural exports.** Research conducted in Sudan finds large gaps between yields achieved in field trials and those typically enjoyed by farmers. Table 3.1 compares research and farmer yields for the major crops grown under irrigation in Gezira. Yield gaps between research and farmers' yields illustrate the possibilities of attaining approximately more than double the current yields for cotton and sorghum and of raising those of groundnuts by two-thirds. Table 3.2 shows even larger gaps for rain-fed crops.

**Table 3.1. Research and Farmer Yields for Irrigated Crops**

<b>Crop</b>	<b>Units</b>	<b>Research Yield</b>	<b>Farmer Yield</b>	<b>Farmer Yield as Percent of Research Yield</b>
Cotton - Extra Long (Barakat)	kantar per feddan	12	4.5	37%
Cotton - Long (Shambat)	kantar per feddan	14	5.0	36%
Cotton - Medium (Acala)	kantar per feddan	18	5.5	31%
Sorghum (open)	tons per feddan	2.3	0.8	35%
Sorghum (hybrid)	tons per feddan	2.7	0.8	30%
Groundnuts	tons per feddan	2.0	1.2	60%

Source: World Bank (2000).

**Table 3.2: Research and Farmer Yields for Rain-fed Crops**

<b>Crop</b>	<b>Units</b>	<b>Research Yield</b>	<b>Farmer Yield</b>	<b>Farmer Yield as Percent of Research Yield</b>
Sorghum - Gedarif	kg per feddan	202	161	80%
Sorghum - Kordofan	kg per feddan	354	125	35%
Sesame - Gedarif	kg per feddan	153	92	60%
Sesame - Blue Nile	kg per feddan	101	86	85%
Sesame - Kordofan	kg per feddan	242	74	31%
Groundnuts - Kordofan	kg per feddan	278	185	67%

Source: compiled from Agricultural Research Corporation technical reports.

3.26 Achieving the potential shown by research trials will require a large expansion of agricultural extension programs and provision of inputs. The productivity of Sudan's agriculture will be the major determinant of the sector's and future export competitiveness, its ability to withstand exchange rate appreciation, and, ultimately, the source of improved incomes and welfare for rural households.

**3.27 The high cost of bringing agricultural products to world markets compounds the problem of low productivity.** In Southern Sudan, the high cost of moving goods from farms to urban areas prevents the region from exploiting its considerable export potential. Livestock and crops grown in remote areas face high transportation costs. Even when distances are short, marketing chains can be long: multiple intermediaries take advantage of market inefficiencies to raise prices without adding value to the product. Analysis of value chain data shows numerous, even if not individually large, taxes and other charges; it is not always clear what services the taxes and charges are paying for. Table 3.3 shows that, for some products, costs incurred at Port Sudan are the largest of these marketing costs, frequently accounting for 7–9 percent of the FOB export price.<sup>50</sup>

**Table 3.3. Costs Incurred at Port Sudan**

<b>Product</b>	<b>Costs at Port Sudan as share of FOB price</b>
Sheep from Kordofan	14.6
Groundnut	8.9
Sesame	8.4
Sheep from Nyala	7.4
Acala cotton	6.5
Gum arabic	5.9

*Source:* DTIS team calculations based on value chain data. See Appendix Tables for details.

**3.28 The rapid appreciation of the Sudanese currency over the past several years has greatly reduced the local currency price that producers receive when selling to world markets.** With the exception of irrigated cotton, Sudan’s agricultural exports typically use minimal imported inputs and therefore do not benefit from the lower cost of purchased imported inputs which result from an exchange rate appreciation.<sup>51</sup> Based on information the DTIS gathered through interviews with traders, currency appreciation has led traders to switch sales at the margin to the domestic market.

**3.29 Importing countries’ controls on animal and plant-borne diseases are at times the binding constraints on exports of some products.** Groundnut exports to Europe declined in large part due to the presence of aflatoxin.<sup>52</sup> Sheep exports ceased in 2000/2001 after Gulf countries banned sheep imports from Sudan (and other countries). The ban was re-imposed in November 2007 after the recent outbreaks of Rift Valley Fever. Moving up the value chain—from exporting animals to exporting meat—would help reduce the country’s exposure to such disruptions, as well as increase domestic value-added, but making this transition will in turn require bringing meat processing facilities up to international food safety standards.

<sup>50</sup> Factors explaining the high cost of using Port Sudan are discussed in Chapter 4.

<sup>51</sup> Irrigated cotton is an exception because imported inputs such as fertilizers, insecticides, and herbicides account for about 45 percent of cotton production costs other than the cost of capital. Of course the impact of an appreciation of the exchange rate would be partly masked by the increased prices of these chemicals whose costs are in some way affected by the increased price of oil.

<sup>52</sup> Aflatoxin is produced by a fungus that grows in groundnuts and other crops. Deficient harvesting and storage procedures can allow aflatoxin to reach harmful levels.

**3.30 Trade policies could be more fully supportive of agricultural exports.** Most agricultural markets were liberalized during the 1990s. The sector is generally open with several exceptions, and changing the policies would increase the sector's export competitiveness.

- Sudan's customs duties on agricultural imports average over 30 percent, which is high by world standards. Similar to currency appreciation, high import duties raise domestic prices above world levels, creating a bias against exports.
- The monopoly export concession granted to the Gum Arabic Company to drives a wedge between world and domestic prices, thus reducing earnings of producers. (See Box 3-1.) Recent steps by the Ministry of Foreign Trade to grant concessions to competitors should improve the situation.
- Government policies on sorghum marketing, which have included export bans in years with low production, generate a classic cobweb cycle of volatile prices and production, and have also contributed to environmental degradation.

**Box 3-1. The Gum Arabic Export Concession: A Story in Unintended Consequences**

In 1969 the Sudanese government granted an exclusive concession for exporting raw gum arabic. This policy was intended to exploit Sudan's global market advantage (it then supplied around 80 percent of world trade), guarantee minimum prices for producers, and preserve the environment by maintaining high acacia coverage. Apart from a brief interlude in 1990–1992 and a 2003 Council of Ministers resolution to eliminate the exclusive export concession, this marketing policy has remained in place for almost 40 years. The export restriction has had the opposite effect:

- Sudan's share of the world market has declined to about 50 percent.
- Prices paid to producers have averaged 21 percent of the FOB price since 1993 and in many years have been only 10–15 percent of the FOB price.
- Farmers have replaced cut down acacia trees and planted crops in response to low gum arabic prices.

Several changes in rules governing marketing and export of gum arabic could improve the livelihoods of the small-scale gum arabic producers, the quality of the environment, and Sudan's export trade balance. A policy note commissioned by the Sudan Multi-Donor Trust Fund-National (MDTF-N) recommends liberalizing and increasing the transparency of the market through the following steps:

- increase the number of concessions for exporting raw gum arabic
- remove barriers to entry in to gum processing
- harmonize taxation of gum arabic with other agricultural commodities
- establish an independent regulator

The policy note also points to the need to go beyond reform of marketing policies by helping farmers to access new technologies to increase yields and tapping, eliminating barriers farmers face in accessing credit, and supporting research into global market opportunities. The MDTF-N is currently preparing a \$7 million project to improve incentives facing farmers.

*Source:* Thomas Yves Couteaudier, "Export Marketing of Sudanese Gum Arabic," Report No. MDTF-N-3, Multi Donor Trust Fund-National, December 2007.

3.31 Sudan's cotton exports are undermined by industrial country subsidies, which depress world prices for cotton. Membership in the WTO would provide an avenue for Sudan to challenge these policies, and this should be a focus of Sudan's commercial diplomacy.

**3.32 Government policies regarding agricultural credit, land use, and research tend to undermine the competitiveness of agricultural exports.**

- Land policy fails to provide most farmers with long-term leases. Customary law provide farmers with long-term user rights if they continue to cultivate the land, but in practice this has led to serious land degradation.
- Agricultural credit for improving productivity favors those in the semi-mechanized farming areas (with extraordinarily large farms) as well as farms in irrigation schemes. At the same time credit systems discriminate against small-scale farmers in the traditional farming areas who have no collateral because land policies do not provide formal tenancy for the majority of farmers,
- Agricultural research in Sudan has for decades received much lower shares of public expenditures than in Arab neighbors.

3.33 An effective agricultural investment program requires a land policy that transfers the wealth inherent in land from the state to the people on the basis of efficient long-term leasing—be it through statutory or customary law. Until there is long-term investment in agriculture (including livestock, forestry and fisheries) its productivity and competitiveness will remain low, and exports of agricultural commodities will inevitably decline.

**Effects of Removing Constraints to Agriculture**

3.34 The DTIS team has attempted to simulate effects of various policy interventions on the exportability of major agricultural commodities to help understand how important these constraints are for different crops. Simulations use value chain data gathered by the DTIS mission. They compare, for several policy scenarios, the ratio of average export price received for several products to the cost of bringing them to the ship in Port Sudan, called here the border price.<sup>53</sup> Ratios above 1.00 imply that, on average, it is profitable to export the product.

3.35 Figure 3-2 depicts results from value chains for groundnuts, sesame, and sorghum. The solid black bar for each product is the ratio of export price to border price, using data gathered in 2006 that have been adjusted to the current exchange rate of SDP 2.0 = \$1. The charts show that only rain-fed sorghum and groundnuts from Gezira are profitable to export (on average) at this exchange rate. Barakat cotton is, on average, almost profitable: the export price is 99 percent of the border price.

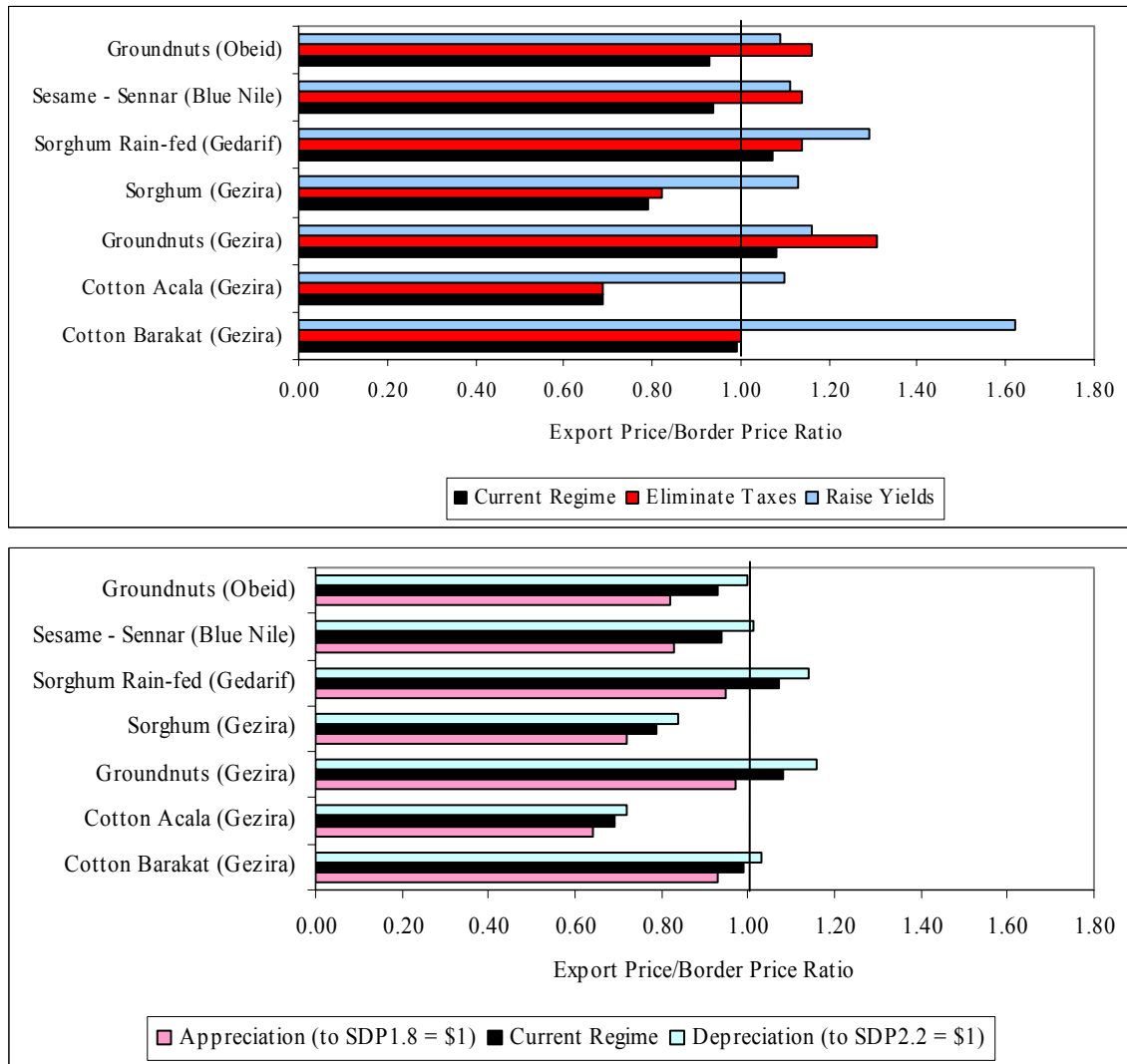
3.36 The upper panel shows effects of two rather stark domestic policy interventions: eliminating all marketing costs (taxes and charges) and increasing productivity to 70 percent of research levels (while holding the exchange rate constant at SDP 2.0 = \$1). In-

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<sup>53</sup> See Appendix E for details on the value chain analysis.

creasing farm yields would restore the export competitiveness of all products considered here. The simulations suggest that cotton and sorghum exports are hurt more by low productivity than by high marketing costs. Sesame and groundnuts, on the other hand, benefit more from reductions in marketing costs.

**Figure 3-2. Effects of Policy Interventions**



Source: DTIS team calculations using value chain data.

Note: The border price is the total FOB cost to bring the product to the exporter. The export price is the FOB price actually received. Values above 1.00 indicate that it is profitable to export the product on average.

3.37 In the lower panel, export prices were changed to reflect a depreciation to the exchange rate that prevailed in 2006 (SDP 2.2 = \$1) and a scenario where the currency continues to appreciate (to SDP 1.8 = \$1). Continued appreciation would make all of these products unprofitable to export. Depreciation to 2006 levels would ensure profitability of all products but sorghum from Gezira and Acala cotton. Among these commodities, only cotton production makes substantial use of imported inputs, so exchange

rate depreciation increases production costs (when measured in Sudanese pounds), partially offsetting the benefits of more favorable export prices.

3.38 Clearly, some of these policy options are extreme cases. For example, it would not be feasible or desirable to eliminate all marketing costs, taxes, fees, etc. We do so here for the sake of simplicity and illustration. Government policies designed to fix the exchange rate at a predetermined level, whether 2.2 or 1.8 pounds to the dollar, would have macroeconomic ramifications that might make such policies impractical; here we want to illustrate the relative importance of currency movements across different products. Realizing productivity gains of 25 percent, however, should be feasible, as evidenced by the large gaps between farmer and field research yields shown in Table 3.1 and Table 3.2. Indeed, those tables indicate the even larger productivity gains are technically feasible.

### **Findings: Key Constraints on Agricultural Exports**

3.39 Sudan enjoys a history of exporting a diverse collection of high-quality agricultural commodities. Export earnings have fluctuated in recent years, however, and Sudan has lost market share in a number of key commodities (most notably gum arabic). The analysis conducted by the DTIS team identifies several constraints that stand out above others.

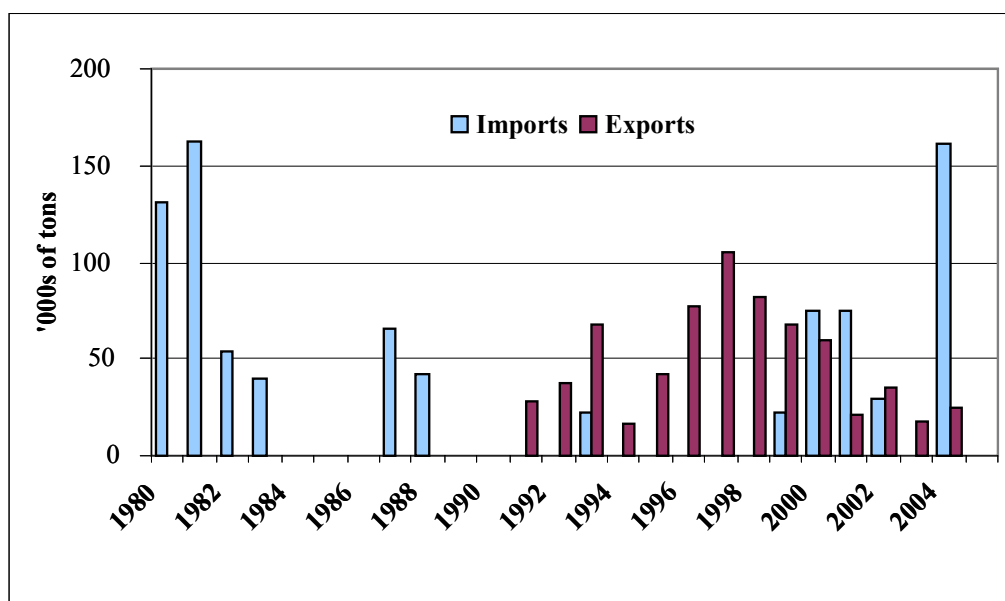
- **Productivity is low.** Virtually all products suffer from declining yields. Investments in agricultural research and extension to get technologies into the hands of farmers and pastoralists are needed to increase production.
- **Marketing costs are high.** Long distances, middlemen, and a range of taxes and fees raise the costs of bringing products to world markets. Rural transportation infrastructure is particularly inadequate in Southern Sudan. Greater fiscal harmonization and simplification could help reduce the tax burden without sacrificing much-needed non-oil revenues. There is a need to increase the efficiency and transparency of wholesale markets.
- **Exports are concentrated.** Although exports are diversified across many commodities, exports several products are concentrated in a few markets. Stronger trade promotion institutions could help provide the information about consumer preferences, prices, regulatory requirements, etc. that exporters need to penetrate new markets.
- **Some policies are inconsistent with export promotion.** Gum arabic policies reduce the incentive to export. Sorghum policies create market instability.

3.40 Appendix C provides a matrix of objectives, actions, expected outcomes, and agencies responsible for overcoming the main constraints on agricultural exports.

## SUGAR<sup>54</sup>

3.41 Sudan is a relatively low-cost sugar producer. It has enjoyed some export success in recent years (Figure 3-3), and has potential to expand production considerably. At present, the industry is regulated through controls on both imports and domestic sales. Sudan has a unique opportunity to create a more export-oriented industry because of opportunities offered by EU preferences and due to changes that are occurring in the regional and world sugar markets. Exploiting these opportunities would require policy changes, including those to address social costs of industry adjustment, but these would greatly increase in export earnings, as well as reduce prices for domestic consumers and sugar-using industries, who currently pay among the highest sugar prices in the world. Government protection for producers would no longer be necessary, and the government's direct involvement in the industry could be reduced.

**Figure 3-3. Sudan's Sugar Trade, 1980–2004**



Source: Sudanese Sugar Company and Kenana Sugar Company.

### Industry Overview

3.42 The sugar industry in Sudan is comprised of four medium-sized government-owned and operated companies (Assalaya, Gunied, New Halfa, and Sennar) managed by the government's Sudanese Sugar Company, and one large company, Kenana, which is operated as a private sector company even though it is 35 percent owned by the government. A new company, White Nile, is being developed with a production potential of 350 thousand tons and is expected to begin operation in 2008. Several other sites are being considered for new sugar companies but none have yet been approved. Kenana produces about 55 percent of Sudan's sugar and is the most efficient of the five companies with

<sup>54</sup> Sugar is sometimes considered an agricultural product and sometimes an industrial product, so we review sugar separately in the DTIS. This section summarizes Donald Mitchell, "Trade Prospects and Competitiveness Issues for the Sudan Sugar Sector," March 2007.

reported production costs of \$254/ton while the four government companies have higher costs. The White Nile sugar company is projected to have production costs of \$166/ton and will be among the lowest cost producers in the world.

3.43 Producer prices have been determined by a cost-plus formula since 1993, which provides for very high prices to protect the profits of the least efficient government companies. In 2006/07, the producer prices were SD 140,062 per ton (\$673/ton). The government also restricts imports and levies federal taxes and duties that totaled 34.8 percent of the factory selling price in 2006/07 and resulted in an ex-factory price of SD 188,760 per ton (\$908/ton). By comparison, the world's lowest cost sugar producer is Brazil with production costs of approximately \$150/ton and the international price of raw cane sugar averaged \$326/ton in 2006. Thus, Sudan has producer prices which are about double the world market price.

### Preferential Treatment for Sugar Exports

3.44 Sudan has historically oriented its sugar industry towards the domestic market. Preferential access under EU's Everything But Arms Initiative to Europe's otherwise highly-protected domestic market gives Sudan the opportunity to export potentially all its production to the protected EU market at prices about double those of the world market, while meeting domestic demand with sugar imported at the world price. This unique opportunity exists because Sudan (currently) is classified as an LDC and thereby qualifies for the European Union's Everything But Arms Initiative (EBA), which grants duty-free and quota-free access to the LDCs. This initiative allows Sudan to export unlimited quantities of domestically produced sugar to the EU at preferential prices. The current EU internal (preferential) price for raw sugar is €524/ton (\$681/ton) which is almost the same as Sudan's producer prices. The EU prices will decline to €335 (\$435/ton) by 2009 due to recent reforms to the EU sugar regime. The EU price is scheduled to remain at €335/ton until at least 2014 when the policy is scheduled for review (Table 3-4).

**Table 3.4. EU Sugar Reference Prices, 2005–2010**

	2005/06	2006/07	2007/08	2008/09	2009/10
White (€/ton)	631.9	631.9	631.9	541.1	404.4
(\$/ton)	821.5	821.5	821.5	703.4	525.7
Raw (€/ton)	523.7	496.8	496.8	448.8	335.2
(\$/ton)	680.8	645.8	645.8	583.4	435.8

Source: European Commission, September, 2006.

Note: U.S. dollar prices are based on an exchange rate of \$1.3/EUR.

3.45 **There is a risk that the EU market will be restricted if sugar imports surge, however.** If LDCs increase enough to cause serious disturbances to the EU markets, this would trigger safeguard provision and the program would be suspended. There is also the possibility that UN sanctions over Darfur could be imposed and access to the EBA denied until sanctions are lifted. Finally, Sudan might graduate from LDC status.

3.46 **COMESA is another important market: even without access to the EU, Kenana and the White Nile companies can export profitably to the region.** Sudan can



export sugar to COMESA FTA countries duty-free and quota-free. As was discussed in 0, not all sugar exported to Kenya receives preferential treatment, due to a safeguard provision negotiated by the Kenyan Government with COMESA in 2003, which was scheduled to expire in February 2008 but which was recently extended for an additional four years. In addition to the opportunities provided the EU and COMESA, the rest of the regional market is growing rapidly and export competition within the region will decline because several regional exporters (Malawi and Zambia) qualify as LDCs for EBA and will divert their exports from the regional market to the EU. The EU has also been a large exporter of white sugar to the region, but the recent WTO ruling against EU subsidized sugar exports will reduce EU sugar exports to the region by 4–5 million tons per year. While competition from other major sugar exporters, such as Brazil, will remain, the use of sugar cane for ethanol production and expected high energy prices will limit Brazil's exports and will likely keep world sugar prices from falling to the extreme lows of 2000.

3.47 Finally, growing world demand for biofuels, such as ethanol made from sugar cane, is pushing up the world price for sugar. This has increased by 69 percent between 2004 and April 2008.<sup>55</sup>

3.48 Thus, Sudan has a number of attractive sugar export opportunities and it should use them to develop an efficient and profitable export-oriented sugar industry, which can provide strong export earnings, employment and other benefits to the country without heavily burdening domestic consumers. However, even with preferential access to the EU and COMESA markets, sugar exporters are not likely to obtain prices which are as high as those currently available in the protected domestic market. This should not be a burden to the efficient producers such as Kenana and the new White Nile company, but could be a burden to the four government-owned companies. Therefore, it is important to improve their efficiency and trade competitiveness by reducing the level of government involvement by either privatizing them or allowing them greater financial and management autonomy.

### **Sugar Market Policies**

3.49 The sugar industry is an important source of tax revenue for the government (see Table 3.5), and tax revenues totaled an estimated SD 42 billion (\$200 million) in 2006/07 based on domestic sales of 860 thousand tons of domestically produced and imported sugar, the factory selling price of SDD140,062/ton, and the federal tax rate of 34.8 percent. Sugar imports face the maximum customs duty of 40 percent. If imports were liberalized, the import price would be about half of the current domestic price and tax revenues would fall. However, a revenue-neutral policy could be designed that would still allow imports to be liberalized and domestic sugar prices to fall. This could be done in several ways using a combination of taxes on domestic sales and an export tax to capture a portion of the benefit from sales to the EU.<sup>56</sup> Lower domestic prices would not only benefit consumers but also increase the competitiveness of sugar-using industries (e.g.,

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<sup>55</sup> World Bank, "Rising Food Prices: Policy Options and World Bank Response," April 2008.

<sup>56</sup> An export tax could arguably be justified on the grounds that the EBA program is intended to benefit LDCs as a whole and not just specific companies in those countries, which could capture the preference margin as profits. An export tax could also offset the loss of tax revenue from liberalizing imports.

pharmaceuticals and food processing) and increase their output, employment, profits—and ultimately tax payments to the government.

3.50 The sugar companies provide social services to local communities such as schools, medical facilities, roads, and water for crops and household use. Such services are valuable and the quality of these services often exceeds that provided by the government. This benefit to the local community should be continued and the cost of such services credited, up to a specified limit, against the export taxes paid by sugar companies. This partially offsets the loss of land taken up by sugar companies and creates local ties of the sugar company to the community. It also improves the living conditions of sugar company workers who often live in nearby villages.

**Table 3.5. Taxes on Sugar**

	SD/ton	US\$/ton	Tax Rate (%)
Sugar Factory Selling Price	140,062.2	673.4	
Excise duty tax	23,810.5	114.5	17.0
VAT	16,387.3	78.8	10.0
White Nile Sugar Duty	3,000.0	14.4	1.7
Headquarters of Republic Duty	1,000.0	4.8	0.5
States Duty	4,500.0	21.6	2.4
Total Taxes and Duties	48,697.8	234.1	34.8
Ex-factory Sugar Price	188,760.0	907.5	

*Source:* Ministerial Decree No. 83, Ministry of Finance, 15 October 2006.

*Note:* U.S. dollar prices are computed with an exchange rate of 208 Sudanese dinar per dollar.

## Conclusions and Recommendations

3.51 Sudan has both a unique market opportunity and a unique ability to expand sugar production because of available fertile land along the Nile and irrigation water from the Nile. This potential is not unlimited because much of the water rights to the Nile are claimed by downstream user Egypt. However, there is enough water to allow the White Nile project to be built and allow other sugar companies to expand production. Sudan should use this unique opportunity to reform policies to:

- liberalize sugar imports subject only to the VAT and eliminate the excise duty on sugar to benefit consumers and industrial users of sugar;
- reduce government involvement in the four sugar companies owned and operated by the government by fully privatizing them or allowing them greater autonomy in managing and investing their resources to avail themselves of the new export opportunities under EBA and the regional market;
- encourage the continuation of services provided to local communities by sugar companies by allowing the sugar companies a credit against the sugar export tax for the cost of such services up to a specified limit.

## MANUFACTURING<sup>57</sup>

3.52 The manufacturing sector historically has not contributed much to Sudan's international trade, but there is great potential for it to do so in the future. Indeed, Sudan's long-run economic growth depends on developing a globally competitive manufacturing sector. Recent research on technological change in developing countries finds that the high-tech business processes, products and services that flow into a country through imports, FDI, and contact with migrant populations living abroad are critical for economic development.<sup>58</sup>

3.53 Many manufacturing activities in Sudan are closely linked to the agriculture sector, which provides the essential raw materials for the most important sub sectors, such as sugar, food and beverages, textiles or leather. Thus, the development of an efficient agro-industrial and manufacturing sector is at the heart of modernization of the Sudanese economy. It has the potential to raise rural incomes and create demand for agricultural products, while providing growing employment opportunities in urban and semi-urban areas. These close intersectoral linkages also contribute to unintended consequences of policy interventions that try to favor one stage an integrated value chain while ignoring other stages.

### Trade Performance

3.54 The manufacturing sector's small contribution to Sudan's trade reflects its small size, concentration, and domestic market orientation. Production is concentrated in a few products and geographic areas. Manufacturing value-added makes around 7 percent of total GDP. This falls below the averages for sub-Saharan African countries and for low-income countries worldwide, and it places Sudan in the middle of neighboring countries (see Table 3.6). Although manufacturing value-added has been growing at an average annual rate of 13 percent per annum since 2000, its share of the economy has been declining, as shown in The manufacturing sector was employing just over 162,000 people in 2001—around 2 percent of the labor force.<sup>59</sup>

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<sup>57</sup> This section summarizes findings of Mañuel de la Rocha, "Development of Manufacturing Exports and Trade Promotion Institutions in Sudan," December 2006.

<sup>58</sup> World Bank, *Global Economic Prospects 2008: Technological Diffusion in the Developing World* (Washington: World Bank, 2008).

<sup>59</sup> Unless otherwise noted, industry-level data on employment, value addition, etc. reported in this section come from Republic of Sudan, Federal Ministry of Industry and Central Bureau of Statistics, "Report on the Comprehensive Industrial Survey 2001," Khartoum, November 2004.

**Table 3.6. Manufacturing in Sudan vs. Regional Comparator Countries, 2005**

<b>Country</b>	<b>Industry</b>	<b>Manufacturing</b>
Egypt,	36	17
Ethiopia	13	5
Kenya	19	11
<i>Sudan</i>	30	7
Tanzania	18	8
Uganda	25	9
Yemen (2004 data)	41	4
MENA average	40	14
SSA Average	32	14
Low income average	28	15

*Source:* World Development Indicators.

*Notes:* Value-added as a share of total GDP.

3.55 The sector is concentrated as well. The 2001 industrial survey finds that, other than some large-scale investments in sugar and cement, the manufacturing sector consists of medium- and small-scale private enterprises concentrated in a few sectors, mainly in food and food preparations, sugar, leather, textile, chemicals, edible oil and cement (Table 3-7). Labor (including non-employees) is extremely concentrated: 83 percent of manufacturing workers are employed in four industries (food and beverages, non-metallic mineral products, fabricated metal products, and textiles). Within the largest industry—food and beverages—almost one-fifth of workers are employed at Sudan’s five sugar factories. Most manufacturing production is concentrated in only three states—Khartoum State, South Darfur, and El Gezira—where about half of all manufacturing firms and 78 percent of the large manufacturing firms are located<sup>60</sup>

3.56 Sudan’s manufacturing sector is generally focused on the domestic market. The 2001 survey of manufacturing establishments found that only 11 of 82 ISIC 4-digit manufacturing industries are involved in export activities. Two of these industries—sugar processing and manufactured petroleum products—made up almost 90 percent of manufactured exports in 2001. Both are highly-concentrated and capital-intensive industries. Vegetable oil is the only manufactured export produced by smaller enterprises.

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<sup>60</sup> The 2001 industrial survey remains the only recent, comprehensive source of industry-level data. Updating this survey on a regular basis should be viewed as a high priority as these data provide essential guidance for policy makers and the business community.

**Table 3.7. Manufacturing Employment and Value-Added, 2001**

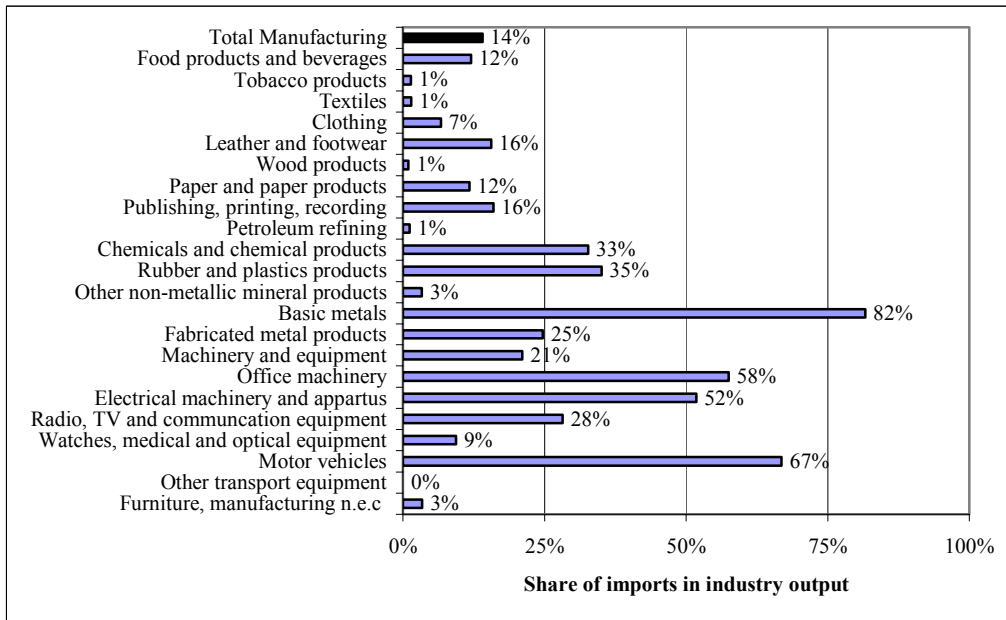
<b>ISIC</b>	<b>Description</b>	<b>Number of Establishments</b>	<b>Persons Employed</b>	<b>Value-Added (SDD)</b>
15	Food products and beverages	16,974	91,879	216,787,115
16	Tobacco Products	33	1,229	4,934,899
17	Textiles	58	10,226	8,728,836
18	Wearing Apparel,	180	1,031	455,598
19	Leather and Footwear	461	3,589	4,850,322
20	Wood Manufactures (excl. furniture)	820	3,343	2,106,814
21	Paper and paper products	9	645	4,993,911
22	Publishing and printing	88	2,107	4,483,512
23	Coke, refined petroleum products and nuclear fuel	3	846	37,248,469
24	Chemicals and chemical products	278	6,020	13,672,382
25	Rubber and plastics products	62	2,773	5,688,826
26	Other non-metallic mineral products	1,541	20,600	8,433,743
27	Basic metals	139	1,144	1,363,748
28	Fabricated metal products	2,812	11,706	6,350,759
29	Machinery and equipment	15	487	3,396,428
30	Office, accounting and computing machinery	2	32	87,094
31	Electrical machinery and apparatus n.e.c	12	963	800,231
32	Radio, TV and communication equip and apparatus	51	165	150,114
33	Medical, pre & optical inst. Watches & clocks	2	104	-38,328
34	Motor vehicles, trailers and semi-trailers	28	1,770	10,274,326
35	Other transport equipment	25	100	6,125
36	Furniture, manufacturing n.e.c	521	1,923	655,821
	<b>Total Manufacturing</b>	<b>24,114</b>	<b>162,682</b>	<b>335,430,745</b>

Source: Comprehensive Industrial Survey 2001.

3.57 The use of imports in manufacturing varies widely depending on the sector. The average share of imports by manufacturing industries as percent of their output was estimated at about 14 percent in 2001.<sup>61</sup> There is large variation depending on the sub-sector. One notes from Figure 3-4 that the Sudanese textiles and clothing industries use very little imported inputs. This stands in stark contrast to counterparts in other developing countries that have succeeded in developing export-oriented production.

<sup>61</sup> This percentage takes into account the direct imports used by a manufacturing industry,

**Figure 3-4. Use of Imported Inputs in Manufacturing**



Source: Comprehensive Industrial Survey, 2001.

## Vegetable Oils

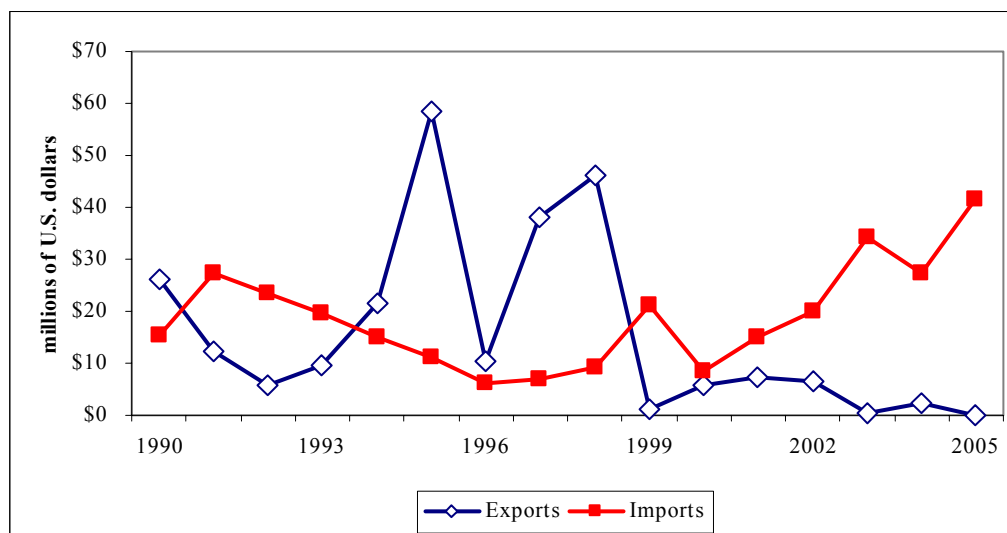
3.58 Sudan has the potential to revitalize vegetable oil exports if the supply of oil seeds can be increased (through higher domestic productivity and use of imported inputs) and if processing technology can be improved (more refined and less crude, higher quality).

3.59 Sudan has been exporting vegetable oil for many decades, primarily to the European Union with steady, albeit smaller, quantities to countries in the region. Exporters could do more to diversify into new markets: Sudan's groundnut oil exports have gone overwhelmingly to Italy. Sudan has not penetrated the markets of major sesame oil importing countries—the U.S., Japan, Hong Kong, Malaysia and China. Even before the U.S. imposed its embargo, it did not import from Sudan; none of these East Asian countries report importing from Sudan during the past 15 years.

3.60 Imports are made up mostly of refined palm oil from Malaysia, Singapore, and Indonesia, and total imports have grown rapidly since 2000. (Figure 3–5). Much of the increase in the past three years can be attributed to food aid. Local producers argue that dumping (selling below cost) accounts for some of the increase as well..

3.61 Oil seeds are the major expense in producing vegetable oils (see Table 3.8 for the groundnut oil cost structure), and oil producers report that the most critical constraint affecting the edible oil industry in Sudan is the shortage of oil seeds in the country. Much the groundnut production used for oil has historically been located in Darfur, and the ongoing conflict in that region has disrupted the supply of oil seeds. Moreover, farmers have been shifting from groundnut into wheat, encouraged by government subsidies for wheat production, which are designed to reduce the import bill on wheat.

**Figure 3-5. Exports and Imports of Vegetable Oils, 1900–2005**



Source: UN Comtrade.

Notes: Mirror statistics for 1990–1992, average of reporter and mirror statistics for subsequent years.

**Table 3.8. Groundnut Oil Production Input Costs (per ton of output)**

Input	Cost (U.S. dollars)	Share of Total Cost
Raw material (oil seeds)	500	95.4
Labor charge	1.5	0.28
Electricity	10	1.9
Maintenance etc.	3	0.57
Consumables & spares	5	0.95
Depreciation	3	0.57
Management cost	1.5	0.28
Total	524	

Source: UNIDO (2005).

3.62 Oil producers report that, despite the shortage of raw materials, the government does not allow importation of oil seeds for further processing. Government authorities dispute this claim, stating that there are no prohibitions or other policies (other than tariffs) that restrict imports. Whatever the reason, published trade data show negligible imports of oilseeds into Sudan until recently, and in 2006 oilseed imports reached only around \$5 million. In addition, vegetable oil producers use essentially no imported: the 2001 industrial survey reports that their imports are 0.41 percent of their total output. Given the seasonality of oilseed production, it will be difficult for oil processors to compete internationally unless they import oilseeds during the off-season in order to fully utilize processing machinery throughout the year.<sup>62</sup>

<sup>62</sup> India's success as the global leader in cashew processing is instructive. By importing cashews from around the world, India is able to process cashews year-round, not just when locally-grown cashews are on the market.

## Textiles and Clothing

3.63 The industrialization process in many of today's wealthiest countries developed around the growth of the textiles and garment production. A number of LDCs have succeeded in generating jobs through garment exports, most notably Bangladesh, Cambodia, and Lesotho. The textile industry is one of the oldest industries in Sudan. During the 1970s the government established a number of public spinning and weaving factories. The industry began to decline in the late 1980s, however, and continued throughout the 1990s, when most factories closed down. And the remaining ones are operating at very low levels of capacity utilization (Table 3.9).

**Table 3.9. Capacity and Production in the Textile and Garment Industry, 2001–2006**

Product	units	installed capacity	production					
			2001	2002	2003	2004	2005	2006
Yarn	thousand tons	61	5.5	5.5	3.3	7.2	9.0	6
Fabric	million yards	330	22	15	15	15	25	28
Garments	million pieces	22.1	2.0	1.5	1.0	1.7	0	0

Source: Bank of Sudan Annual Reports, 2002 through 2006.

3.64 The Sudanese textile industry has been predominantly targeted towards the domestic market. The industry enjoyed some success exporting to the EU, Turkey, a UAE during the 1980s and late-1990s. Exports have dropped to almost nil in recent years. Sudan also used to export some cotton yarn, but this was mostly intra-firm trade from Nile Corporation to its headquarters in Korea, and it stopped once the factory was sold in 2001.

3.65 The biggest constraint reported by industrialists is scarce or expensive inputs. Domestic cotton lint production fell to 50,000 tons per year in the late 1990s compare to 200,000 tons in the mid-1980s.<sup>63</sup> Industrialists report that importing raw cotton or cotton thread is not permitted. Government authorities deny that there are any official restrictions on cotton and cotton yarn imports other than ordinary customs duties. Whatever the reason, total imports of cotton, cotton thread, and cotton fabric are negligible: less than \$2 million in 2006, compared to imports of artificial staple fibers of \$124 million. Cotton fabrics face the maximum 40 percent customs duty and are not eligible for duty reductions the Investment Act. Antiquated machinery and lack of credit to invest in new plant are other major constraints holding back export production.

<sup>63</sup> Data from the Sudan Cotton Company reported by de la Rocha (2006).



**Table 3.10. Cost to Produce One Running Meter of Synthetic Fabric, 2006**

Cost Item	Cost (SD)	Share	Comments
Raw material (synthetic fabrics)	220	52.4%	The imported price of raw material is increased by around 30% because of import taxes and transport costs.  Average time to clear imports at Port Sudan = 3 weeks
Dying, bleaching	50	11.9%	
Labor costs	40	9.5%	Minimum wage has increased by 170%, from 74,000 SD in 2003 to 200,000 in 2006. Labor productivity is low. High turnover of unskilled workers. Firms have no incentives to invest in training.
Power + Gas	25	6.0%	Cost of power is high 12c per kw/h. In addition, because of the shortages about 30% of electricity consumption is produced by generators at higher cost
Other items: -overheads -water	63	15.0%	
Taxes	22	5.2%	Numerous and unpredictable taxes, which keep changing – wastage, environment, etc.
Total	420		

*Source:* DTIS mission, collected from field visits to producers.

## Pharmaceuticals

3.66 Pharmaceuticals are a possible export industry with some potential to penetrate regional markets. Local production grew rapidly during the early 1990s. There are currently 19 firms in the sector, 18 of them private. The demand side the market is dominated by two main players, the Central Medical Supplies (a government-owned corporation and largest drug importer) and the Revolving Drug Fund of Khartoum State. In Southern Sudan, pharmaceuticals are supplied primarily by international agencies.

3.67 Practically all production is sold locally. Conflicts in border regions have interrupted the small amount of exports that do exist, according to discussions with the private sector. The pharmaceutical industry depends more heavily on imported inputs—primarily raw materials and packaging—than many other manufacturing industries. Imports made up 35 percent of the value of production in 2001, compared to 14 percent for the manufacturing sector as a whole (see Figure 3-4).

3.68 The market was heavily regulated until the mid-1990s, including through the use of price controls. Investment and output expanded rapidly after many of these controls were lifted. Capacity utilization in 2005 was reportedly close to 95 percent for syrups and 30–45 percent for tablets and capsules—far above levels enjoyed by most other manufacturing industries.<sup>64</sup>

3.69 Industry leaders identify the principal constraints on exports as the cost of production is high due to poor infrastructure, taxes and charges, and lack of financing. Local

<sup>64</sup> Central Bank of Sudan, *Annual Report 2005* (Khartoum: Central Bank of Sudan, 2006): 53.

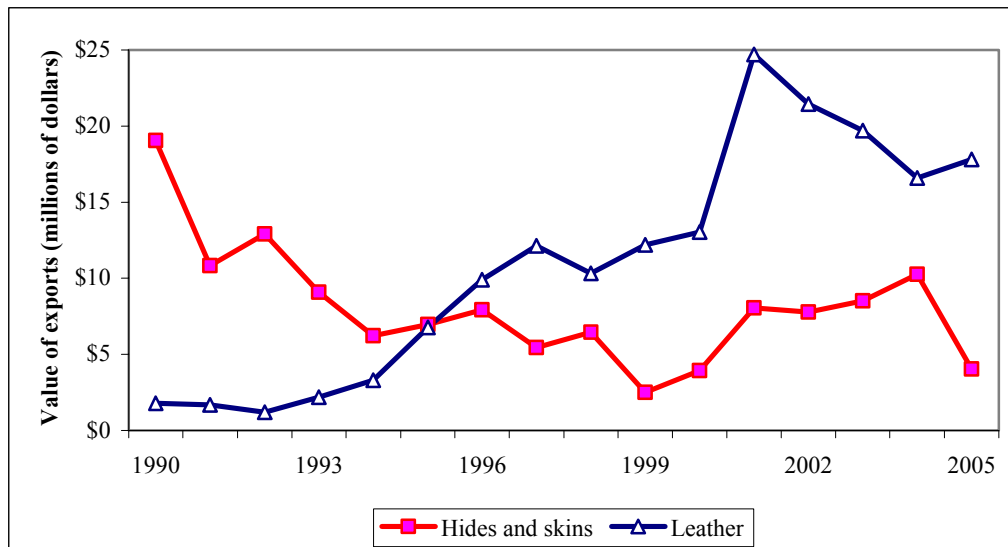
producers point out the lack of skilled labor as a major problem for them. The drug industry is energy-intensive, and thus its export competitiveness is undermined by the high cost of power. Since drug companies depend more heavily on imported inputs than do other manufacturing industries, the industry is more vulnerable than others to bottlenecks in clearing imports and to high import tariffs. High sugar prices raise production cost for syrup manufacturers. Both foreign and domestic quality assurance and safety regulations critically affect the pharmaceuticals industry's ability to penetrate export markets. With the exception of two or three firms, the industry requires new investments to keep up with the technological development and evolving international standards in order to substantially increase exports. The new framework policy encouraging FDI and joint ventures is a positive development in this regard, as multinational firms often bring better quality management to joint ventures.

3.70 In the short run, marketing studies to identify regulatory requirements in regional markets would provide important information to potential exporters. To develop a comparative advantage in the long run, it will be necessary to encourage and facilitate establishment of joint ventures with multinational drug companies.

### Leather Industry and Related Products

3.71 The leather industry in Sudan holds great potential thanks to the country's vast number of livestock, which is one of the largest in Africa. Output is concentrated in intermediate leather products, much of which is sold to international manufacturers of leather garments. There is severe excess capacity: most plants are closed, and those that remain open are operating well below their capacity.

Figure 3-6. Leather Industry Exports, 1990–2005



Source: Mirror data reported by importers to UN Comtrade.

3.72 Unlike other manufactured products, leather is produced mostly oriented for export.<sup>65</sup> The European Union (primarily Italy) and the United States were the main buyers of Sudanese leather in the early 1990s. Exports to the U.S. ceased with the imposition of its economic embargo. Pakistan and China (mostly Hong Kong) are now the two largest buyers of Sudanese leather, followed by Europe and India.

3.73 Exports of hides and skins have been declining, in part due to their low quality relative to competitors (see Figure 3-6). Exporters lost their markets in Italy, Spain and Portugal because of decrease in the quality of Sudan's hides and skins. Sudan receives only about 50 percent of the international price for wet blue product because of its low quality. The use of chemicals and their disposal has environmental consequences. Scarcity of high-quality hides and skins is also a chief constraint to boosting leather production and exports. Poor animal husbandry and outdated slaughtering techniques limit the supply of high-quality hides and skins. Foreign tanneries are able to outbid Sudanese tanneries for the quality skins that are produced. The government introduced an export tax on hides and skins in 2000.<sup>66</sup> Tanneries are particularly affected by the numerous charges and local taxes levied on hides and skins, such as veterinary tax, market authority tax, transport tax (Table 3.11). Tanneries complain that these taxes are paid several times every time they cross a state.

**Table 3.11. Share of Production Cost for Medium-Size Tannery**

Component	Share of costs	Comments
Raw Material	70%	transport costs: 20–22 percent fees and other taxes on raw materials: 10–12 percent
Imported Chemicals:		import duty: 3 percent
Chroming (\$600/ton)	8–12 %	other charges: 20 percent
Utilities (\$0.12/Kwh)	5–10%	high cost of electricity
Labor + overheads	15%	low productivity and few skilled workers

*Source:* DTIS mission calculations.

### General Constraints on Manufacturing Exports

3.74 **Taxes are multiple, un-transparent and burdensome.** Firms report that it is not only the level of taxation that matters, but also the manner in which a government collects taxes, the number of different taxes, and the transparency of the tax legislation, that greatly affects investment decisions by firms. In Sudan manufacturing firms are faced with multiple and un-transparent taxes and charges, often levied in a discretionary manner and not connected with the services they are supposed to provide, which discourage investors and make it difficult for business to survive. Table 3.12 itemizes the typical fees and charges levied on imports, based on the DTIS mission's interviews with manufacturing firms.

<sup>65</sup> The 2001 Industrial Survey reports that 73 percent of output was exported (in value terms).

<sup>66</sup> An export tax shifts income to owners of tanneries from those raising livestock. It may help shift the flow of hides to local tanneries in the short run, but it does not address the underlying factors that undermine the leather industry's international competitiveness.

3.75 Manufacturing firms are also faced with multiple other charges levied by local and state authorities. Many states depend on these taxes and fees for budget purposes. However, manufacturing firms complain that some of these charges are levied multiple times. In particular, raw materials sourced and transported from states into Khartoum for processing are charged several taxes (veterinary tax, market authority tax, and transport tax, etc) every time trucks cross the various states. These taxes seem to be increased frequently without any previous warning or justification.

**Table 3.12. Fees and Charges Levied on Import Consignments**

	<b>Khartoum Airport</b>	<b>Port Sudan</b>
Import Duties	3%	3%
Excise duty		
VAT*	10%	10%
Directorate of Pharmaceutical Fees (medicines only)	1–2%	1–2%
Clearing Certificate Fees	1%	1%
Injury Stamp (to support war effort)	1%	1%
Sea Port charge fees	0	2%
Police Stamp	SD2,700	SD2,701
Business Association Stamp	SD1,000	SD1,000
Customs Computer Service	SD2,700	SD2,700
Customs Form Sales Fee	SD2,500	SD2,500
Customs Supervision Fee	SD5,000	SD5,000
Customs Inspection Fee	SD10,000	SD10,000
Customs Examination Fee	SD750	SD25,000
Quality Control Fee (SMO)	SD26,550	SD26,550
Sea Port Certificate Fee	SD1,000	SD1,000
Customs Certificate of Import Fee	SD3,000	SD3,000
Handling and Portorage Fee	SD2,000	SD15,000
Withholding Tax	5%	5%

Source: DTIS team compilation, 2006.

Notes: \*medicines are excluded from VAT; all ad valorem fees are levied on CIF Values; import duty rate is based on eligibility under the Investment Encouragement Act.

3.76 The Commission for WTO Affairs has been reviewing many import charges to ensure conformity with WTO Rules. Articles VIII and X of the GATT 1994 state that WTO members' fees and charges should be clearly proportionate to the services rendered and dealt with in a transparent and predictable manner. Ad valorem fees are generally considered to be incompatible with WTO rules.<sup>67</sup> The FIAS administrative barriers report suggests that some agencies involved in providing facilities for imports and exports may be using the charges as a source of revenue.<sup>68</sup>

**3.77 *Lack of long-term finance constrains the ability of firms to embark on long overdue modernization of plants.*** Access to long-term finance at affordable rates is critical for firms to invest in new technologies, expand their operations, and embark in new

<sup>67</sup> Candidates for WTO membership are routinely asked to eliminate existing ad all valorem trade charges other than ordinary customs duties.

<sup>68</sup> FIAS (2006), "A Review of Administrative Barriers to Trade." (IFC/World Bank: Washington, June 2006).

projects and products. Unfortunately, in Sudan lack of adequate financial facilities is one of the critical problems constraining the manufacturing sector, according to discussions in manufacturing enterprises. In this sense, Sudan is not very different from most African countries, where financial sectors are very underdeveloped. Generally, banks in Sudan only offer short term financing of up to 12 months, at very high interest rates, typically in the order of 1 to 2 percent per month. Moreover, banks require firms to guarantee their loans with collateral assets valued in the same amount of financing borrowed. The latter requirement is difficult to meet for many medium and small enterprises in dire need of capital but possessing few assets. This issue is discussed in.

**3.78 *Scarcity of skilled labor reduces productivity.*** The issue of labor productivity is critical to any discussion on Sudan's manufacturing sector economic competitiveness and export potential. Most firms interviewed point out that labor costs in the sector have been rising quickly in the last few years without any parallel increase in productivity, which is clearly having an impact on competitiveness.<sup>69</sup> While low productivity is partly due the lack of modernization in the industry, the level of skills is certainly a major factor. Availability of skilled labor is critical for firm competitiveness. Sudan has very few vocational schools. These are insufficient to meet the demand from firms for technical workers. Women lack the access to educational resources that men enjoy. As a result, firms have to conduct on-the-job training so that their workers can acquire the required technical skills, particularly for women workers. However, because of high labor turnover many companies are reluctant to invest heavily on more sophisticated and needed training for their workers, just to see them leaving the firm once they acquire the skills.

**3.79 *Energy is expensive and unreliable.*** An extensive and reliable energy infrastructure is a pre-requisite for export diversification and sustained growth. In recent years, Sudan has substantially expanded electricity generation capacity. Nevertheless, most firms consider the high cost of energy as a critical obstacle to improving their competitiveness (see Table 3.13). The price of energy for industrial sector is about 12 cents per kilowatt-hour, substantially higher than in other developing countries competing with Sudan. This is despite the fact that electricity prices are partially subsidized. Not only is electricity relatively expensive in Sudan, but it is also very unreliable. Firms report shortages and blackouts of up to 30 percent of their production time, forcing most firms to acquire expensive generators to keep production running. Power obtained through the generators is obviously more expensive. As a result, according to interviews conducted with manufacturing firms, electricity costs take up 15–30 percent of the total cost of production, notably higher than in other developing countries.

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<sup>69</sup> Minimum wages in industry have increased from 74,000 SD in 2003 to 200,000 in 2006.

**Table 3.13. Electricity Costs, 2004**

<b>Country</b>	<b>Cost per kwh</b>
China	\$0.090
Czech Republic	\$0.040
Djibouti	\$0.290
Ethiopia	\$0.050
India	\$0.070
Jordan	\$0.090
Kenya	\$0.060
Malaysia	\$0.050
Morocco	\$0.057
Oman	\$0.060
Philippines	\$0.070
Saudi Arabia	\$0.032
Singapore	\$0.070
<b><i>Sudan</i></b>	<b><i>\$0.120</i></b>
Tanzania	\$0.057
Thailand	\$0.070
Tunisia	\$0.067
Turkey	\$0.100
UAE	\$0.050
Yemen	\$0.090

*Source:* The Services Group, reported in the Tanzania DTIS, 2005.

3.80 ***Appreciation of the Sudanese currency undermines export competitiveness of the sector.*** During the last five years, the Sudanese currency has appreciated about 30 percent with respect to the U.S. dollar. Most manufacturing firms in Sudan are agro-based; they source their raw materials locally and hence do not benefit from cheaper imports due to appreciation of local currency.

#### SUMMARY

3.81 Several lessons emerge from this investigation of constraints at the sector level: **Low productivity across a wide range of activities hinders Sudan's ability to compete in world markets.** Agricultural yields are low, variable, and declining. Low production compounds the problem of low productivity in Southern Sudan. Manufacturing establishments suffer from excess capacity and outdated technologies. Sugar production is a partial exception: Kenana Sugar Company is highly efficient, although the state-owned sugar companies suffer many of the same problems as other industrial enterprises. Government and donor assistance is needed to improve research, extension, and vocational training programs. Poor access to credit prevents producers from investing in technologies that would improve productivity. Particularly in Southern Sudan, inadequate transportation infrastructure means that farmers have little incentive to invest time and money in increasing yields since they cannot easily get products to consumers.

3.82 **There is an urgent need to reform the incentive regime—the taxes, fees, duties, exemptions, and other policies that shape market prices, and therefore deci-**

**sions on trade and investment.** There are two dimensions to this problem. First, a proliferation of taxes and fees raises production costs, making Sudanese goods less competitive in world markets. Localities collect fees and taxes as goods move across state borders. This apparently results from a mismatch between localities' spending obligations and their revenue bases. Many different agencies impose taxes and fees on imports. As will be seen in Chapter 4, port fees at Port Sudan are the highest in the region. These charges to production should be rationalized within the context of the broader fiscal decentralization legal framework of revenue and expenditure assignments for sub-national levels of government.

3.83 Second, interventions designed to reduce costs or raise prices received for one activity often imply negative competitiveness effects for other activities. Import protection and domestic price policies provide high prices for sugar producers but hurt food processors and the pharmaceutical industry. Subsidizing wheat production hurts vegetable oil processors by discouraging groundnut production. The export tax on hides and skins and the concession given to the Gum Arabic Company reduce incomes of upstream producers. In an interdependent economy, such ad hoc interventions in one activity inevitably lead to unintended consequences in others. Greater uniformity of taxes, harmonization of taxes and fees across government bodies, and predictability of fiscal measures would help promote a pro-poor trade strategy, based on increased non-oil exports.

## 4. CROSS-CUTTING CONSTRAINTS TO COMPETITIVENESS

4.1 The quality of a country's transportation networks, trade facilitation institutions, and behind-the-border backbone services (e.g., financial and telecommunications services) is a critical determinant of its export competitiveness. Since the signing of the CPA, Sudan has launched an impressive program of rehabilitating and expanding its physical infrastructure. The previous chapters have identified a number of cross-cutting institutional constraints that remain to be addressed: weak trade facilitation institutions, customs bottlenecks, inadequate standards capacity, and backbone services.

### TRANSPORTATION AND TRADE FACILITATION

4.2 Geography and internal conflict have fragmented Sudan's transport infrastructure and access to seaports. Internal north-south infrastructure linkages have been disrupted, and Southern Sudan is essentially landlocked. The South is critically dependent on Sudan's external neighbors for its access to the sea and to trade facilitation services. Restoring and improving links and services within Sudan for external trade movements through Port Sudan will reduce dependence on its neighbors—which themselves go through episodes of conflict thus disrupting transit. The physical recovery program in Southern Sudan is necessarily attuned to more basic infrastructure needs compared to northern Sudan and includes building an internal (rural) roads network, ensuring transport and trade facilitation links between the north and the south of the country and establishing trade facilitation systems for efficient access to markets in regional countries and the "Northern Corridor" to Mombassa Port in Kenya. In northern Sudan improving trade facilitation is largely a matter internal to the country. As a first step, it requires strengthening physical infrastructure and services in the various transport modes (port, roads, rail, inland water, and air). As a second step, it requires developing and strengthening logistics service providers to provide seamless services to customers by integrating movements of goods across frontiers and modes in support of supply chains.

#### Main Issues and Trends in Trade Facilitation

4.3 *A difficult geography...* With an area of 2.5 million square kilometers Sudan is the largest country in Africa and the ninth largest in the world. It shares borders with 9 countries. Port Sudan on the Red Sea is located far from the main economically-productive areas of the country, which lie close to the River Nile. The nearest point on the course of the river is located about 500 km from the Red Sea in northern Sudan and some 2,000 km away in Southern Sudan. The intervening terrain is harsh.

4.4 *...complicated by the aftermath of conflict.* A half-century of internal conflict caused deterioration of the country's transport infrastructure. It resulted in inefficient surface transport services in northern Sudan, coupled with the severance or deterioration of the erstwhile multi-modal links (road-river-sea) between Port Sudan and Southern Sudan.



The South has become virtually land-locked and is dependent on routes to the Kenyan port of Mombassa (both directly through Kenya and via Uganda) for much of its external trade movements.

4.5 ***Sudan’s transport infrastructure and facilities are inadequate in the North, and almost nonexistent in the South.*** In addition to the effects of the civil war, budgetary cuts introduced for economic stabilization and economic sanctions imposed on the country exacerbated the deterioration of the transport network. At the national level there is a functioning institutional structure for dealing with the issues in the transport sector, together with Sudanese public and private transport organizations for the delivery of services. There is, however, a backlog of repair and maintenance of the existing infrastructure in all surface transport modes, and several aspects of the transport policy framework and institutional structure need strengthening. In Southern Sudan basic transport infrastructure as well as the institutional framework do not exist for all practical purposes, and services are mainly provided by transportation entities from Kenya, Uganda and elsewhere, who have been drawn in by the market for transporting relief goods. This poses the immense challenge of rapidly developing infrastructure and services in transport while simultaneously establishing institutions for the development of the sector.

4.6 The focus and current priorities in the transport sector in Sudan are rehabilitation of existing infrastructure and adding key links and facilities to establish connectivity between the North and South as well as improving access to rural areas. Some trade and transportation trends are emerging.

4.7 Sudan’s trade integration remains low, but trading volumes between Kenya and Uganda and Sudan have increased and informal cross border trade is large. The significant growth of formal trade with Kenya and Uganda is clearly a result of more peaceful conditions prevailing in the region (see Table 4.1).

**Table 4.1. Kenya and Uganda’s Trade with Sudan, 2001–2006**

Reporter	Flow	2001	2002	2003	2004	2005	2006
<b>Kenya</b>	Imports	16,539,072	2,546,151	7,370,345	2,356,579	2,909,425	1,170,218
	Exports	37,937,680	31,364,552	34,455,744	42,003,193	40,040,251	41,289,496
<b>Uganda</b>	Imports	15,606	58,710	11,879	168,227	208,343	79,288
	Exports	8,686,080	4,870,839	9,158,548	23,907,300	38,860,908	87,682,889

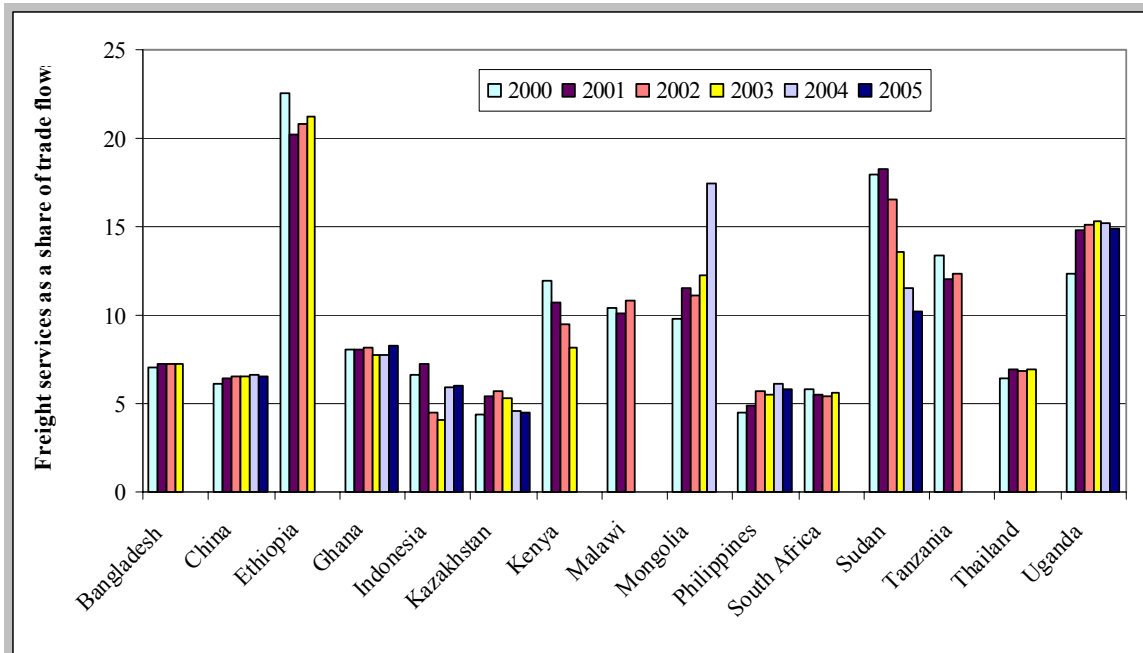
*Source:* Data reported by Kenya and Uganda to the COMESA Secretariat.

*Notes:* Nominal U.S. dollars.

4.8 Informal trade in eastern and central Africa is substantial and contributes positively to regional food security needs. Uganda’s informal trade with its neighbors in 2005, for example, is estimated at about 85 percent of formal exports and 12.5 percent of formal imports. The magnitude of informal in Uganda’s other border zones is indicative of the quantum of trade that is possible in the case of (southern) Sudan and reinforces the importance of its trade with regional neighbors. This traffic is mainly taken across borders by non-motorized means including bicycles and head loads, or by small, motorized vehicles and motorcycles.

4.9 *Sudan has high transport and trade facilitation costs in external trade, even compared to low-income landlocked countries...* Trade and transport facilitation (TTF) costs comprise charges for transport in Sudan along the main road, rail and inland water arteries, international road freight (or road and rail freight) in the case of transit via Mombassa, airfreight, sea freight, customs operations, clearing and forwarding (C&F), insurance, port services and telecommunications. In relation to its external trade (North) Sudan's "freight transport rate" is similar or even higher than some land-locked countries such as Malawi and Kazakhstan (Figure 4-1).

Figure 4-1. Freight Transport Rate of Selected Countries



Source: Derived from International Monetary Fund data.

Note: Data is not available for several countries for 2004 and 2005. Freight transport rate is given by (freight credit + freight debit + other transportation services credit + other transportation services debit + insurance credit + insurance debit) / (merchandise exports + merchandise imports), using IMF Balance of Payments statistics. Data relates only to northern Sudan since information for Southern Sudan is not available but TTF costs are higher in Southern Sudan than in the North of the country.

4.10 *But freight transport rate has been improving in (North) Sudan since 2002—* possibly as a spillover effect of the growing oil export. Export of petroleum, oils and lubricants (POL), particularly crude oil, doubled in the past years. POL exports are estimated at about 15 million tons in 2005 compared to all other imports and exports out of Port Sudan of 7.86 million tons, i.e., approximately twice the tonnage of all other trade. Transport infrastructure—roads, pipelines and port facilities at specialized terminals—are being built to allow the increasing crude oil production to be exported. This has increased the efficiency of transport and logistics and other exports can explore ways to piggy back on it. Of the dry goods (i.e., non-POL) in 2005, nearly half was bulk cargo—and half of that were wheat imports, with cement and fertilizer being other major bulk imports. Approximately half of the remaining dry cargo was containerized. Trade in bulk commodities for relief can also be a conduit for improved trade facilitation in the South.

## Logistics Services

4.11 ***The relative absence of logistics services providers is a great constraint to Sudan's integration into the world economy.*** Sudan is not taking optimal advantage of the container revolution in international trade. This is mainly because providers of integrated logistics services do not have a significant presence in the country. Their absence affects transportation in both northern and Southern Sudan. If an internationally-competitive and globally-integrated market for logistics services does not emerge in Sudan, much of the investment in physical infrastructure that is currently underway will not result in lower trade facilitation costs. Because the South is effectively a landlocked region, it faces an especially pressing need to develop a logistics industry with external collaboration to integrate transport and trade facilitation services for clients. In Southern Sudan, this industry would help to provide that part of the country competitive services on the two routes to the sea through Port Sudan and Mombassa.

4.12 ***The freight forwarding industry in Sudan needs to be further developed.*** International logistics companies have begun to operate in many developing country markets with the worldwide growth in the movement of cargo in containers. These service providers, operating either on their own or in partnership with local agencies, sell logistics products that revolve around their ability to issue through bills of lading (TBLs) from source to destination, covering the inter-modal aspects of freight movements between intermediate transport nodes. In Sudan, however, the clearing and forwarding (C&F) industry remains small and relatively unorganized, and deals mainly with the numerous documentation and procedural matters associated with external trade.<sup>70</sup> In 2004 there was only one company offering to service TBLs. The low level of organization can be attributed in part to rules that restrict licensing of customs clearance agents to individuals only; unlike in most other countries, corporate entities cannot obtain licenses.

4.13 The relative absence of international financial services in Sudan also contributes to the weak state of the logistics services industry. In many other countries, logistics companies work closely with international banks and insurance companies to provide financial services that facilitate international shipments. As will be discussed below in the section of financial services, even though there is considerable foreign investment in Sudan's banks, there is little commercial presence by international banks.

4.14 ***A system of inland container depots (ICDs) is lacking and the existing ICD is in serious need of improvement.*** The number of container handling facilities in the country is extremely small. One ICD is located at Soba, just outside of Khartoum. Containers are transported in bond from Port Sudan to the ICD at Soba for customs inspection and delivery to consignees. This ICD requires better paving, fencing and lighting and additional sheds for rain protection during cargo inspection. A second ICD is planned in Khartoum North. Both are operated by the Customs General Administration (CGA). Businesspeople reported to the DTIS team that there is considerable interest in private ownership and operation of ICDs in northern Sudan, but that CGA has turned down their requests for pri-

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<sup>70</sup> One should note, however, that the professional association of freight forwarders, which was established in 2001, is affiliated with International Federation of Freight Forwarder Associations (FIATA).

vate sector participation. It would appear that private investment would be commercially feasible: the private sector in Uganda considers it profitable to invest in ICDs that handle annual volumes of 2,000–3,000 twenty-foot equivalent unit (TEU); in Sudan the number of loaded TEU per year in Sudan is already over 150,000 and growing.

4.15 As in the case of the North, in Southern Sudan there is potential for establishing private sector ICDs and a logistics industry with external collaboration. For a landlocked region, the activities of such a logistics industry are especially important as this would integrate TTF services for clients as a single-window service. In particular, Southern Sudan could try to encourage competition between its external corridors to Mombassa and Port Sudan in order to keep some degree of control over long-term TTF costs. This will also depend on how quickly the economy of Southern Sudan grows and generates products or demand for external trade. The logistics industry could provide greater efficiency and security of movements through the issue of TBLs.

4.16 *Sudan is not taking optimal advantage of the container revolution in international trade.* Even though much of Sudan’s dry cargo non-bulk overseas trade through Port Sudan and Mombassa is containerized, goods are often de-stuffed and stuffed at Port Sudan and transit the inland leg from Port Sudan as break bulk. This is inefficient, and it reflects the low level of development of the C&F industry in Sudan.<sup>71</sup> It will be to Sudan’s benefit to encourage the growth of this industry as the increased export facilitation and reduced costs can be considerable, particularly as the import to export ratio of dry cargo in Sudan is quite high (see Table 4.2).

4.17 *There are some steps that can help promote the development of globally-integrated and competitive freight-forwarding services.* First, the private sector organizations in both North and South should seek technical assistance from FIATA to build freight forwarding capacity and bring them closer to global standards. Second, restrictions on private investment in ICDs and licensing of corporate entities to conduct customs clearance should be reconsidered. A deeper investigation into trade logistics is needed to evaluate whether government regulations or procedures prevent foreign entry into the domestic freight-forwarding market. Finally, attracting international financial services providers (banks, insurance companies, etc.) would support the development of a globally-integrated market in Sudan for freight forwarding services. As will be discussed below in the discussion of financial services, even though there is considerable foreign investment in Sudan’s banks, there is little commercial presence by international banks

## **Transportation in Northern Sudan**

4.18 In northern Sudan, several modes are used to transport goods—maritime, road, air, rail, and inland water. Inland transportation is dominated by relatively higher-cost road services. The inefficiency of rail services together with the deterioration of rail infrastructure has made the sector’s role insignificant compared to road services. Inland

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<sup>71</sup> This corresponds to practices that were common in industrial countries in the early years of containerized shipping, but were replaced several decades ago. For a description of this evolution, see Marc Levinson, *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger*, (Princeton: Princeton University Press, 2006).

water transport services to Southern Sudan on the River Nile have deteriorated in the past two decades. A basic inter-modal transport link is being re-established in Sudan between Juba and Port Sudan, however, under the aegis of National Emergency Transportation Rehabilitation Project (NETREP). Air cargo movements do not take place with regular schedules of freighter aircraft (owing to lack of traffic volumes) and most cargo is carried in the holds of aircraft operating scheduled passenger services. Improving trade facilitation will require improved physical infrastructure related to the various modes of transports, better service delivery, and better linkages among them. Enhanced private sector participation with support from the international community can play a major role improving the efficiency of the rail sector, port services, and river transport. As the bottlenecks arising from weak physical infrastructure are being addressed, it is critical to develop logistics services, including cold storage chains to facilitate exports of goods to Middle Eastern and European markets.

## Port Sudan

4.19 Ships using Port Sudan face the highest port charges in the region, and imports arriving at the port are subject to lengthy delays. Port Sudan has sufficient capacity to cater for increased volumes of external trade and has an overall plan to enhance infrastructure (berths, etc.) as traffic increases. Nevertheless, Sudan Ports Corporation (SPC) reports that cargo stays in port for 5–6 weeks on average. Some problems are related to customs inspections but many are linked to procedures involved with multiple agencies in clearing or preparing goods for imports and exports.

**Table 4.2. Throughput Summary and Container Penetration in Port Sudan**

	1999	2000	2001	2002	2003	2004	2005
Full (TEU)	57,045	66,907	78,439	85,429	106,546	133,200	167,543
Empty (TEU)	25,199	27,275	42,262	43,664	50,061	72,311	105,842
Total (tons)	82,244	94,182	120,701	129,093	156,607	205,511	273,385
Containerized (tons)	751,730	952,796	1,060,803	1,274,064	1,639,413	1,870,055	2,037,987
Bulk+Imp+Exp	2,609,431	2,613,970	3,015,796	3,113,669	3,408,519	3,704,667	5,819,980
Total shipments (tons)	3,361,161	3,566,766	4,076,599	4,387,733	5,047,932	5,574,722	7,857,967
Of which containers	22%	27%	26%	29%	32%	34%	26%
Total without Bulk	1,305,627	1,037,721	1,093,918	1,110,747	1,172,255	1,389,413	2,039,710
Of which containers	37%	48%	49%	53%	58%	57%	50%

*Source:* SPC and Consultant's estimates.

*Notes:* TEU: twenty feet equivalent unit. Break Bulks are cement, wheat and fertilizer. Containers handled in the North Port are not included in container traffic data.

4.20 Between 1999 and 2005, traffic in Port Sudan grew at a compound growth rate of 15 percent a year—more on account of increased imports than exports. Further, following the CPA there has been a substantial increase of traffic of 47 percent in 2005 compared to 2004, including a rise of 63 percent in bulk goods such as cement, food and fertilizer (Table 4.2).

4.21 Like most ports Port Sudan traditionally handled cargo as break bulk using labor intensive methods. Universally, non-bulk dry cargoes are now largely shipped in containers for the ocean leg of their transit. A world-wide system of hub and feeder ports has

emerged for container services; these hub and spoke practices have evolved because they result in ships spending the least amount of time at ports loading and unloading boxes and this optimizes the operating efficiency of shipping companies. Port Sudan is a feeder port, even though it lies on the main Asia Europe shipping route passing through the Red Sea and the Suez Canal. It is serviced from Jeddah (Saudi Arabia), Aden (Yemen) and Salalah (Oman).

4.22 Shipping rates are going down thanks to a competitive international industry, but they are countered by high port charges levied by SPC. Growing global competition has driven down freight rates over the years. Shipping rates to Port Sudan from Europe and East Asia fell from \$2,400 per TEU in 1997–1999 to \$1,200 per TEU in 2004. These rates continue to prevail in 2007 in the range of \$1,300–1,400 per TEU for imports, including surcharges for rise in bunker (fuel) prices.<sup>72</sup> However, the charges levied on ships by SPC are high—actually the highest in the region—especially on berthing (Table 4.3). Higher port charges are typically passed on to Sudan’s importers and exporters in shipping tariffs. Similarly, handling charges and port dues for cargo on the landward side are also high at \$420 per TEU (without considering storage and demurrage)—four times the costs in Mombassa for similar bagged cargo. (See other estimates in Table 4.3.)

**Table 4.3. Red Sea Ports and Mombassa Port Charges for Ships in 2004**

Item	Aden	Jeddah	Salalah	Dubai	Djibouti	Massawa	Port Sudan	Mombassa
Lt. dues	211	0	0	459	0	0	0	540
Port dues	630	533	594	589	261	1,710	1,620	1,800
Pilotage	648	961	540	542	576	4,104	778	810
Mooring	540	0	272	272	243	0	0	120
Tugs (2)	877	0	1,060	1,064	787	0	2,023	1,080
Berthing	540	533	0	0	801	734	5,400	1,175
Total	3,446	2,027	2,466	2,926	2,668	6,548	9,821	5,525

Source: Assessment of Port and Maritime Sub-Sector Sudan JAM. Mombassa: Consultant’s estimates.

Note: All values in U.S. dollars. Port Charges are for an 18,000 G.T Container ship.

4.23 ***SPC has used its large revenue to invest in infrastructure improvements of the port.*** SPC has been able to finance port development activities by itself. It invested about \$187 million in development projects in 2001–2005 (Table 4.4). As a result, the main working areas are in good condition, with a number of new berths and infrastructure projects commissioned in the past decade. SPC revenue per ton of throughput has increased in the period 2001–2005 by 39 percent in local currency terms and by 47 percent in dollar terms. A combination of a higher realization per ton handled and large increases in throughput has led to the generation of substantial surpluses. However, SPC enjoys a monopoly in its role as the main node in the country’s maritime trade, and revenues generated by it appear high relative to the number of ships using the port and the volume of cargo it handles.

<sup>72</sup> Shipping costs for exports would be about 40 percent of these rates because of the imbalance of traffic.

**Table 4.4. Summary of SPC Annual Financial Data (SD million)**

Item	2001	2002	2003	2004	2005
Revenue	26,370	28,871	34,598	43,955	70,604
Operating expenses	12,062	11,525	13,736	17,166	26,328
Operating Profit	14,308	17,346	20,862	26,789	44,276
Dividend	5,714	6,048	6,758	8,101	16,549
Investment in Port	4,991	8,200	9,500	10,000	15,000
Provisions	803	1,724	2,474	5,023	5,499
Net Profit	2,800	1,374	2,130	3,665	7,228
Revenue per ton SD	6,469	6,580	6,854	7,885	8,985
Revenue per ton US\$	25.04	24.99	26.26	30.57	36.88

Source: SPC, Consultant's estimates.

**4.24 Legal labor requirements at the port lead to overstaffing, poor productivity, and higher costs.** In the North Port the equivalent of a dock labor board exists and there is a legal requirement to use labor from this pool of about 25,000 workers. Owing to poor productivity, most agencies involved in North Port activities bear these costs and supplement the labor force with their own staff. In the Container Terminal labor is solely provided by SPC. SPC recognizes that it is currently overstaffed with 7,300 workers. It would like to reduce staff numbers through attrition and has obtained advisory services to study methods of enhancing efficiency at the container terminal. SPC plans to restructure the terminal over 3–4 years, bring in a strategic partner and concession it in a decade. The concessioning of terminals has generally been an effective method of addressing port productivity and costs for containerized cargo. For example, in Dar es Salaam, a concession was awarded in 2000 and resulted in sharply reduced container dwell time in port with the best crane productivity performance among the ports on the Eastern seaboard of Africa. The time span for concessioning considered by SPC is too long—it should take place over a much shorter period, such as three years. The need to reduce numbers of surplus staff must be confronted despite its obvious sensitivities. Current SPC surplus earnings can contribute to a severance package, but the matter will require study and support from government authorities.

**4.25 SPC's tariff structure should be moderated by GoNU over time.** SPC fees constitute a revenue source for GoNU, but the negative impact of such a tax on trade can be substantial. The port, as the major surface transport node in Sudan's external trade, should be a trade facilitating enterprise and not a barrier to enhanced exports. While the impact of user charges (seaward and landward) is probably not a major issue for the large quantities of crude oil exports, particularly since the Bashayer terminal is not operated by SPC, facilitation for all other general cargo passing through Port Sudan is not enhanced by high charges for port services.

**4.26 Delays in the port of 5–6 weeks are frequent.** The avoidable direct costs on inventories could be of the order of magnitude of \$40 million for Sudan if cargo dwell time is reduced by 30 days for non-bulk goods, assuming that the average cost of such goods imported is \$600 per ton. A lot of delays, however, are caused by importers using the port areas as storage facilities to save money, according to government officials, who report current rules constrain them from auctioning unclaimed cargo or charging appropriate

fees to discourage the use of the port as an ad hoc storage facility. About two thirds to three quarters of this delay cannot be accounted for and would require a systematic review; but document preparation takes a long time for both export and import, and the time spent on ports and terminal handling and customs clearance is quite high for imports (Table 4.5). Out of 178 countries in the *Doing Business* 2008 survey, Sudan ranks 143 in terms of the ease of trading across borders.

**Table 4.5. Export and Import Transaction Data, 2007**

<b>Export Procedure</b>	<b>Duration (days)</b>	<b>Cost</b>
Documents preparation	25	\$750
Customs clearance and technical control	3	\$250
Ports and terminal handling	6	\$200
Inland transportation and handling	5	\$500
Total Export Procedures	39	\$1,700
<b>Import Procedure</b>	<b>Duration (days)</b>	<b>Cost</b>
Documents preparation	31	\$750
Customs clearance and technical control	12	\$350
Ports and terminal handling	7	\$200
Inland transportation and handling	4	\$1,000
Total Import Procedures	54	\$2,300

Source: Doing Business 2008 database.

Notes: All data shown are per TEU.

### **Road Sector and the Trucking Industry**

4.27 Road transport provides over 90 percent of inland transport services. The main road links between Port Sudan and the main centers in the North are reasonable, although the network suffers from lack of maintenance. Traffic levels were not high by international standards, with flows ranging from 3,000 to less than 50 vehicles per day on National Roads, except for road sections close to Khartoum.<sup>73</sup> About 19 percent of traffic was heavy trucks. There are several large road haulage companies, besides smaller service providers. There are no barriers to entry and this market appears to be competitive. The truck fleet in the past three years has been growing (Table 4.6). The number of trucks available to meet transport demand has an impact on tariffs charged.

**Table 4.6. Northern Sudan Truck Fleet**

<b>Vehicle Type</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>
Dry Cargo Heavy Truck	5,546	7,403	12,558
Tank Trucks	1,220	1,430	1,500
Lorries	10,000	12,300	15,000

Source: Chamber of Transport.

4.28 Tariffs charged are not unreasonable (at least on the Khartoum-Port Sudan route) in international comparisons. The tariffs for heavy liquid cargo trucks are regulated on

<sup>73</sup> JAM Road Sector Report.



the basis of cost of service as are prices for gas, diesel fuel and kerosene. Other tariffs are related to supply and demand in a reasonably competitive market. There have been fluctuations in truck tariffs in the past three years based on the increase in import cargo following peace talks in Sudan in 2004. As the trucking industry expanded significantly from 2005 onward as a result of liberal import norms for obtaining trucks, tariffs were reduced (Table 4.7). Many new entrants in the business are in serious financial difficulties and are unable to service bank loans. Tariffs in 2006 have not yet fallen to the levels prevailing in 2003 – these are 26 percent higher when expressed in Sudanese Dinar (SD) and are 50 percent higher if considered in dollars.

**Table 4.7. Port Sudan –Khartoum Truck Tariffs in SD per Tonne, Break Bulk Cargo**

Tariff	2003	2004	2005	2006
SD per tonne for the distance	10,700	11,800	18,000	13,500
US cents per tonne for the 1,191 km	4,013	4,414	7,500	6,027
US cents per tkm	3.37	3.71	6.30	5.06
Exchange Rate used SD to US \$	267	267	240	224

Source: Chamber of Transport, SRC, WFP, Al Bazim, Consultant's estimates.

**4.29 *The majority of truck journeys towards Port Sudan are empty hauls, so exporters get to negotiate better rates.*** The ratio of imports to exports in Port Sudan increased from 2 in 1999 to nearly 16 in 2005, as did the ratio of containerized cargo. Tariffs for exports are negotiated and start at half the rates for import goods—export movement rates between Khartoum and Port Sudan can drop to \$10 per ton, or a sixth of the rate in the import direction. On the Mombassa Kampala corridor (a distance of 1,170 km that is almost the same as from Port Sudan to Khartoum) the rates for break bulk cargo is 34 percent higher than the rates in Sudan. However the discounts for export traffic were much higher on the Mombassa corridor in 2005 with rates a third of those charged for imports. The comparatively low transport costs in Sudan are likely due to the low price of POL in the country—50 percent lower than the regional average.

### ***Rail Services***

**4.30** The Sudan Rail Corporation (SRC) is a GoNU public corporation managing and operating one of the larger railway networks in Africa. Of its 4,578 route km, a little over a third is not in operation presently. There have been several extensions in the past ten years including a 52 km line to the El Muglad oil field in 1995. SRC's overall condition is not satisfactory for speeds higher than 40 kph and axle loads exceeding 13 tons.<sup>74</sup>

**4.31** SRC's unsatisfactory performance is characterized by deferred maintenance of infrastructure and rolling stock, low equipment utilization and revenues, high staff costs and financial losses. Rail's share of the market decreased to below 7 percent in key traffic streams and even this quantum of traffic has been retained primarily because SRC has initiated important measures for PSP with considerable success. Additional reforms are required if efficiency and throughput capacity is to increase with enhanced private sector and donor supported investments, together with support for a social safety net and funds

<sup>74</sup> Sudan JAM Railway Sector Report.

for rightsizing staff strength in the sector. This is being supported by NETREP and it is an urgent task if the sector is to remain relevant in Sudan. These measures are essential to increase the market share of rail hauled traffic and for the mode to provide some competition to road services, particularly on the core Port Sudan to Khartoum route. In the meantime NETREP is supporting emergency measures to restore a North South multi-modal route from Port Sudan to Juba, including rail components at Kosti (new and rehabilitation), repair of a weak bridge in the main line and at Port Sudan.<sup>75</sup> In addition, the Babanousa Wau rail line is being rehabilitated and this will restore rail services to the Western part of South Sudan after a break of over a decade. (Improving the Nyala line—a working railway in poor condition—is also being planned in the Darfur JAM.)

### ***Inland Water Transport***

4.32 A well-functioning, container-capable, inland water transport (IWT) system is critical for providing a transport route integrating the national economy and for providing Southern Sudan with an alternate route to the sea. During civil war the traditional IWT link between Kosti and Malakal, Bor and Juba was disrupted. Services have started again but mainly carry goods break bulk. Many problems remain, including silted Juba port, navigation channels requiring dredging, lack of navigation aids, lack of handling equipment particularly for containers, and many non-operating vessels that require rehabilitation. GoNU has started addressing some of the vessel rehabilitation issues and NETREP is supporting the establishment of container handling facilities, emergency rehabilitation at old Kosti port, concessioning new Kosti port, new infrastructure at Juba and studies on dredging, navigation and river hydrography. These activities need to be matched by increasing private sector transportation capabilities in the sector.

### **Transportation in Southern Sudan**

4.33 Southern Sudan has very little physical infrastructure and close to no institutional capacity; it is a considerable distance away from any sea port and is landlocked. Southern Sudan uses Mombassa as its main seaport but has no control on the main TTF issues associated with Mombassa Port - time spent by imports in ports and the cost of customs bonds for transit import and export cargoes. A competitive market exists for road transport services, provided by Kenyan and Ugandan companies. When Port Sudan is used, traders in South Sudan face the high costs and long delays in North Sudan, exacerbated by the additional time, costs, and capacity constraints of using the IWT on the Nile.

4.34 Because developing a rural roads network in Southern Sudan will start from scratch, it will take time to be established. In addition construction materials are in short supply and clearing mines and unexploded ordnance exacerbates construction problems. Linking the South and North of the country on the east and west of Southern Sudan, and getting the external transport links functioning on the two corridors to the sea (Port Sudan and Mombassa), is in some ways the easier task. To a large extent these basic links are in the process of being put in place. One major issue is that of priorities. Is it more important to deal with the external trade links or to connect rural areas to markets? It would

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<sup>75</sup>Link at Port Sudan to allow returning container movements to the empty container area of Dama Dama.

best, if feasible, if the choice does not have to be so stark and if the two matters can go hand in hand. If the external links work well materials for the reconstruction effort can enter the country at more efficient costs. This implies a need to emphasize the development of the logistics service provision industry.

### ***Road Infrastructure and Trucking***

4.35 ***Routes to Mombassa are substantially shorter than the national route that includes a change of mode from/to IWT at Kosti.*** Southern Sudan's closest port is Mombassa, linked via the road through Kenya using the Lokichoggio border crossing. There is an equidistant road route through Arua and Nimule in Uganda that has started functioning recently (it was moribund owing to civil strife in Northern Uganda). A slightly longer route has been working through Yei in Uganda. There used to be two main routes linking South Sudan with the North: a road and rail served link from Juba via Wau and Babanousa on the west and the IWT and a road/rail link with IWT from Juba via Bor and Malakal in the east. The significance of the link between the routes is that Juba was, and still is, the only place with a bridge across the White Nile in all of South Sudan. These links have deteriorated or stopped functioning.<sup>76</sup>

4.36 The long-term plan for road development in South Sudan is based on a core network of 3,000 km of paved and 3,000 km of gravel roads as a minimum target to be constructed by 2015. This would provide a network density similar to the COMESA average. It would imply spending about \$100 million a year on new construction. The investments would also be commensurate with estimates of the absorptive capacity of Southern Sudan in this sector over the next ten years. Emergency improvements in the South would continue during the short term and focus on providing basic links between the major centers and for returning rural communities. Institutional building activities have high priority under SETIDP and bilateral programs.

4.37 ***In recent years transport of goods into South Sudan has been dominated by relief goods arranged by WFP and others.*** Materials for UN peacekeeping forces are also a major traffic stream. Since the CPA, development projects have also contributed to traffic growth. Sudan's import cargo transiting through Mombassa has more than doubled between 2001 and 2005, from 67,000 tons to 141,000 tons. Moreover, about 5,400 tons of Sudan's exports left through that port. This traffic is dominated by road transport companies based in Mombassa (who are also the major carriers in East African region).<sup>77</sup>

4.38 The Kenyan trucking industry dominates the market and is competitive, but small tonnages for Sudan and the dominance of World Food Program (WFP) imply higher rates. There are over 50,000 trucks of all sizes registered in Kenya, of which about 4,000

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<sup>76</sup> In November 2006 the bridge was damaged by an overloaded truck and now has a 5 tonne vehicle weight limit for movements. Goods have to be offloaded east of the bridge from large vehicles to suitable smaller vehicles. Repairs to strengthen the bridge are being arranged by GoSS.

<sup>77</sup> The reason for this is the imbalance between import and export traffic in sea borne trade. This gives transporters based at Mombassa the advantage of location, as they would normally be at their home base waiting for import traffic while trucks based in the hinterland States coming with exports to Mombassa would have to wait for return cargoes without a confirmed booking in a foreign country, that is, Kenya.

participate in international traffic and a slightly larger number in internal long distance traffic.<sup>78</sup> Following consolidation a few years ago, a few large (fleets of at least 100 to 400 trucks) companies dominate this segment of transport. They are well-managed according to the financial institutions that lend to these companies. The main market for this fleet is Uganda transit traffic, and there is substantial competition among firms for it, as well as some competition from railways. This does not necessarily apply to the smaller tonnages involved in the transport of goods for Sudan (about 10 percent of volumes of Uganda cargo). Further WFP rates tend to be the trend setters in this market because of the volume of relief cargo on the Sudan route. The terms of WFP transportation contracts are generally higher than other market rates because it pays a premium for reliability of services and equipment, and there is generally an element of emergency in its movements. The current cost for the movement of a TEU from Mombassa to Juba is about \$5,000. Transit time is ten days after leaving the port.

### ***Customs Bonds***

4.39 ***Customs bonds for transit goods required by the East African countries add a substantial cost to trade.*** The East African countries require customs bonds for transit goods as an insurance against loss of duties from the leakage of cargo into the domestic economy. Bonds add to the costs of transit and are passed on to customers in Sudan. This could be 4 percent of the cost of an import or export commodity. Acting alone, there is very little that can be done by Sudan regarding this cost in the short term. COMESA provides a possible venue for Sudan to work with Uganda and Kenya to address transit problems. In many countries, various measures have been introduced to make the system more efficient, including reducing the time taken to retire bonds, removing the bond requirement for carriage by rail, and making bonds applicable over several countries of transit.<sup>79</sup>

## **CUSTOMS ADMINISTRATION**

4.40 The Customs General Administration (CGA) is a military/police organization (not a common model for a customs organization). For administrative purposes, it reports to the Ministry of the Interior whereby organizational structure, grading, remuneration and police/military policies are determined. For technical and operational purposes, including operational budgets and planning and revenue collection, it reports to the Ministry of Finance.

4.41 Most import and export trade is through Port Sudan. Import clearances may be obtained there or goods may be moved under customs control to the inland container depot at Soba (in Khartoum) and cleared there, or moved to one of the more than 150 licensed warehouses in the Khartoum area and cleared at the bonded warehouse and duty-free zones office. Much smaller volumes of import consignments are cleared at other lo-

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<sup>78</sup> World Bank, "Kenya: Issues in Trade Logistics," 2005.

<sup>79</sup> It is not uncommon for the process to take as much as 60 days, locking up funds in the process. The latter would benefit goods that transit more than one country, those of Sudan coming through Uganda, for instance. Consideration could be given to use the Transport International Routier (TIR) system.

cations such as the Red Sea free zone. Air cargo is cleared at Khartoum and Juba international airports. More than 95 percent of import and export clearances are processed at 10 sites equipped with the ASYCUDA ++.

4.42 The CGA of Sudan enjoys several elements that constitute a good underpinning for improving operations and facilitating trade. The CGA is a strong, disciplined organization. A major initiative to introduce a modern computer system (ASYCUDA ++ ) has been completed, and further upgrades to ASYCUDA World are being considered. The CED has many dedicated and competent personnel; most levels of management demonstrate a high degree of knowledge of the customs business. There is reasonable infrastructure and an established mature organization. For example, the customs training facility in Khartoum is fairly up-to-date and well equipped, as is the customs laboratory at Port Sudan; four new Chinese-built x-ray scanners are expected imminently.

4.43 On the other hand, the CGA faces several shortcomings that prevent it from meeting the standards of a modern customs organization: lack of a formal articulated plan for modernization; legislative constraints; lack of post clearance revenue controls generally, and in particular, in the key areas of fraud, valuation, and exemption diversion; insufficient training and monitoring of staff in critical areas (for example, valuation and physical inspection); and failure to accept and implement recommendations of various international institutions. In addition, despite senior management acceptance of many of the principles of reform, the operating philosophy at the staff level appears to be based on an overall distrust of traders and passengers – self assessment and risk management are not really functioning as guiding principles of customs administration. There is as a result over-control of all transactions resulting in checking and rechecking of the same information, with very little value added. Excessive and unproductive physical inspections contribute to long release times.

4.44 ***Customs procedures and ASYCUDA.*** The CGA processes some 265,000 customs entries annually, more than 95 percent of which are cleared at 10 ASYCUDA ++ sites. Procedures followed for clearance at Khartoum international airport, the Soba inland container depot, and at Port Sudan are generally consistent and well understood. The environment within which processing is undertaken is secure and clearing agents are generally excluded from the customs area. The manifest control, import declaration processing, revenue accounting, export declaration processing, trade statistics, and management information functions are computerized using the ASYCUDA ++ system.

4.45 The key activities in the declaration processing flow are the following:

- Face vet—to ensure that relevant fields on the hard copy declaration (customs Form 1) are complete and the necessary supporting documents are attached.
- Direct trader input (DTI)—to key in the required ASYCUDA ++ fields and print a hard copy. Carried out by agents in offices set up on customs premises for that purpose.
- Physical inspection—to examine shipments. Customs officials advised that close to 100 percent of shipments are examined. The selectivity modules of ASYCUDA ++ are not being used.

- Tariff review—to conduct a manual verification of classification, based on the physical inspection of the shipment and the HS tariff itself, and review valuation based on value notices issued by headquarters as well as values used or approved regarding prior shipments.
- Permit and/or exemption check—to verify that permits, licenses, and so on, issued by other agencies, including bank documents, are present and correct and that any claimed exemption or concession is correct.
- Assessment – to organize all documents for payment.
- Final verification – to ensure everything is in order and correct.
- Accounting/Cashier – to provide a printout to agent, accept payment, and issue receipt.
- Release order—to prepare the release order and gate pass after the applicable duties have been paid and receipted.
- Gate check—to physically check the goods out of the shed or depot against release documents.

4.46 The progression of declarations through each stage of the processing flow is recorded in a series of internal registers. The signature of the processing officer is also required at each stage. Goods are often moved “in transit” from Port Sudan to an inland container depot (Soba or Garri) or to private licensed (“bonded”) warehouses, of which there are currently in excess of 150. All are private warehouses. Security in the form of a bank guarantee or other acceptable means must be posted for the duties and taxes on goods in warehouses. For containers moving inland from Port Sudan, security is required in the amount of the declared duties and taxes plus 25 percent of the value of the shipment (so advised by senior customs officials). For containers moving inland from Port Sudan, the clearing agent physically enters the customs declaration information at the site of the inland container depot (Soba). Once this is done, but before any review is made, customs at Soba advises Port Sudan electronically that the container can be released for “transit” movement inland.

4.47 *Customs release times remain long, despite improvements since the introduction of ASYCUDA ++.* There is a general consensus that container release times (from arrival in port to release by customs) average from 35–42 days. The SPC accepts up to five days of this time as its responsibility, and customs accepts about the same. The remainder of the time is attributed in part to the requirements of other government departments but more significantly (according to both the seaport and customs) to the behavior of the importers themselves. This is attributed to importers using the port facility as a storage space, often because importers do not have ready markets for the imported goods or the resources to pay duties taxes and port storage.

4.48 There are still too many steps in the customs clearance process; the face vet stage, where the old customs form 1 is still required, is redundant. Traders or their agents should be able to enter customs information directly into the computer to create the customs declaration and the form 1 should be eliminated. Furthermore, there is no necessity for any further checking after the assessment stage in the process. Finally, there is good reason to believe that forms required from the Bank of Sudan for imports and forms from

commercial banks for exports may well be unnecessary. Elimination of these processes and forms is also supported by the customs clearing agents.

4.49 The ASYCUDA ++ system is not being fully utilized, and physical inspections at a rate of almost 100 percent are a serious impediment to trade. There is little to be gained with this level of scrutiny, and little to lose by reducing it significantly. The client risk profiles that drive the selectivity feature of the system need to be developed as a priority, along with capabilities for post assessment verification. This will also entail the strengthening of the CGA's intelligence function. Application of the risk-based features of ASYCUDA ++ will be a test of management's stated desire to modernize operations and facilitate trade.

4.50 ***There are many complaints about the examination process itself.*** Customs officers' lack the skills to properly conduct physical examinations using modern off-load and sampling techniques. Training should be provided for inspectors and supervisors alike.

4.51 ***The current regime of paper and physical controls over warehoused goods is extensive,*** including operation of a "two key" system under which the owner holds one key to the warehouse and the customs officer holds the other. With experience in successfully using risk management and audit techniques in customs operations, the CGA can consider more modern ways of managing its network of bonded warehouses. The idea is to move away from traditional physical controls and detailed recording of inventory (which in effect duplicates the inventory records of the licensee). Instead, the licensee will be required to keep accurate and complete records and these will be subject to audit by a customs auditor after the fact. Based on risk factors such as the types of goods, duty liabilities, and track record (i.e., "profiles"), the licensee may be subject to spot checks, selected transaction audits, or complete audits. Customs will gear its control framework to how well the licensee meets required obligations.

4.52 ***The current customs controls on transit shipments are inefficient.*** There are about 4–5 customs control checkpoints between Port Sudan and Khartoum. While they do not cause much problem, there is no evidence that they add any value.

4.53 Improvement in both service and enforcement is possible with direct electronic submission of import information by traders at point of embarkation. In the long run, technologies could be employed to allow customs information to be submitted at point of embarkation (for example, Rotterdam) well in advance of import arrival. This would facilitate enforcement decisions, provide intelligence, and allow customs to make appropriate preparations for expedited clearance. ASYCUDA World utilizes a web-based technology that could facilitate this kind of operation. ASYCUDA ++ includes an email feature as well as direct line options, but it will be more important in the short run for the CGA to apply the full functionality of the system and all its modules. Once ASYCUDA ++ is fully operational, the CGA should investigate whether some of the shipping companies who already provide consignment information in Port Sudan could be encouraged to do so through bills of lading (TBL) for inward traffic to CGA.

4.54 ***Customs valuation needs to conform to WTO valuation requirements.*** Customs valuation in Sudan is determined by the “Brussels definition of value.” Almost all countries that formerly used this valuation method have now adopted the transaction value method, which is required by WTO rules. In their customs clearance operations, the CGA uses for reference lists of “tariff values” established by headquarters, as well as invoices already accepted for prior shipments. Declared values are routinely uplifted to match tariff values, regardless of the price actually paid by the importer. The incidence of uplift exceeds 50 percent. The main reason, according to customs officials, is the prevalence of false invoices (Table 4.8).

4.55 This valuation approach does not conform to WTO rules, which require members to value goods primarily according to their “transaction value”—the price actually paid or payable for each individual transaction.<sup>80</sup> Implementing WTO rules will cause a profound change customs officers’ work. The CGA has already identified that this change will require a prolonged transition period and a significant amount of training in the law, the agreement itself, and the commercial documentation that customs will need to obtain from the importer when they have cause to question the declared value.

4.56 Pending the move to transaction value, the CGA could begin a preliminary analysis of valuation activity. Using sampling or other techniques, the CGA could identify major reasons for valuation uplift in its current operations. The uplifted transactions could be classified by commodity, importer, and country of origin. This analysis could help to determine trends and identify common and repetitive situations. A similar exercise could be carried out for a sample of cases where valuation has been accepted as proposed by the importer. This analysis, in addition to improving valuation activities, could serve as a basis for developing risk profiles for introducing selectivity in physical inspections.

4.57 Post release activities such as post clearance verification and audit are a necessary pre-requisite for relaxing pre-release controls and for reducing the number of physical inspections, but they and all potential risks to the flow of government revenues need to be thoroughly addressed. A suggested indicative reform schedule and priorities, for the first two years, at an aggregated level, and for illustrative purposes only, is shown in Appendix Table D-1.

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<sup>80</sup> WTO rules establish certain mandatory inclusions and exclusions from that value, and specify five secondary methods of valuation that may be used if the primary method is unable to be applied. The alternative methods that must be used in sequence are: transaction value of identical goods, transaction value of similar goods, deductive method, computed method, and fall-back method.



**Table 4.8. Sudan: Customs Modernization Strategy—Illustrative Priorities**

	Year 1				Year 2			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>1. Customs legislation/regulations</b>								
Finalize draft customs law	■							
Develop necessary regulations for valuation		■	■	■				
Establish appropriate appeals process			■	■	■			
<b>2. Reform management</b>								
Obtain funding for reform	■	■	■					
Obtain TA for project management	■	■	■	■	■	■	■	■
Appoint reform program manager, team	■	■						
Establish steering committee		■	■					
<b>3. Developing risk management</b>								
Prepare comprehensive risk-management policy			■	■	■	■		
Develop risk profiles, strengthen intelligence			■	■	■	■	■	
Conduct WCO time release study.	■	■						
Strengthen post clearance activities				■	■	■		
Streamline clearance processes	■	■	■	■				
Develop response to FIAS study		■	■	■	■	■		
Improve management reporting		■	■	■	■	■		
<b>4. Information technology strategy</b>								
Develop response to UNCTAD review	■	■	■					
Implement e transmission of documents.					■	■	■	■
Negotiate and implement ‘single window’						■	■	■
<b>5. Improve human resources</b>								
Apply WCO guidelines on anti-corruption.		■	■	■				
Implement HR workforce transformation plan.		■	■	■	■	■	■	
Conduct training gap analysis, develop plan		■	■	■				
<b>6. GoSS operations</b>								
Establish CGA operations in south.	■	■	■	■	■	■	■	■
Provide training for GoSS officers.	■	■	■					
Determine infrastructure requirements	■	■	■					
Improve border stations, networks		■	■	■	■	■	■	■

**ANIMAL, PLANT, AND FOOD SAFETY STANDARDS**

4.58 Building Sudan’s capacity to meet foreign countries’ sanitary and phytosanitary (SPS) measures is critical for revitalizing traditional exports and diversifying into new products. Regional bans on livestock trade, especially the 2000–2001 ban that brought sheep exports to a halt, as well as the November 2007 livestock trade ban, make abundantly clear that these animal health measures can be a binding constraint on exports. Difficulties in meeting importing countries’ regulations on other products, such as meat, hides, oilseeds, and horticulture products, have led to reduced export earnings when sub-standard products are sold at discounted prices. For example, Sudan receives only about half of the world price for its wet blue skins due to low quality. Fruit and vegetable exports face similar problems. In addition to building capacity to support increased exports,

there is a need to streamline SPS procedures facing imports. Manufacturers report that cumbersome import clearance procedures raise their costs and undermine their export competitiveness.

### **Principal SPS-related Constraints**

4.59 Standards are becoming increasingly important for international trade, both in terms of the range of products (and processes) and the types of standards applied to trade. Appendix Table D.2 outlines standards, regulations or other protocols facing products that Sudan exports or is likely to export in the future. Of these, three products stand out in terms of their economic importance and the role of standards: livestock, meat, and horticulture.

4.60 **Disease outbreaks limit exports of live animals.** Sheep and cattle exporters have faced repeated bans in recent years as importing countries attempt to prevent the spread of animal-borne diseases. Though the laws and regulations are being directed by key import countries, Sudan faces internal constraints in meeting these standards. Several World Organisation for Animal Health (OIE) List A diseases are present in the country, which means that importers are aware of the need for tighter inspection and testing, both in Sudan as well as in the importing country. In response, the federal government has developed systems for vaccination, quarantine, and testing of animals as they move through the domestic marketing chain on their way to export markets. The government negotiated protocols with Saudi Arabia and Egypt to permit sheep and cattle exports to those countries, both of which require testing of 100 percent of animals bound for export.

4.61 **The ability to move into meat exports is constrained by substandard meat processing facilities and practices.** Sudan could export meat products and avoid many of the SPS issues affecting the exports of cattle, sheep and goats. Exploiting this potential will require significant improvements in meat processing facilities, as plants currently operate as custom operations that mainly supply the domestic market. Boosting meat exports will also require the national government, GoSS, and state governments to step up surveillance and inspection activities to better allow for product certification or other measures.

4.62 **To realize horticulture export potential, private-public cooperation is needed to build infrastructure and improve practices.** Sudan is not realizing its full market potential for horticulture products because of inconsistent quality, and it will not be able to penetrate many markets until exporters can demonstrate that these products are free of pests and chemical residues. Horticulture products currently sell in the traditional bulk markets at a discount because of low product quality. To command higher prices paid by supermarkets in Dubai, Saudi Arabia, and Kuwait, producers will need to ensure that Sudanese fruits and vegetables consistently meet consumers' higher quality standards. Melons and green beans also face stringent health and safety controls in EU supermarkets. Weak phytosanitary measures, inadequate post-harvest preparations, lack of laboratory facilities, and inadequate legislative control act against advancing the horticulture sub-sector.

4.63 **Most of the responsibility for improving these systems lies with the private sector.** The federal government, state governments, and the GoSS have the responsibility to undertake necessary inspection, testing, and reporting. They also can play an important role through extension, awareness-raising, and technical support services to the private sector. But producers themselves face the larger task of bringing their practices into greater conformity with international norms.

### **Institutional Capacities**

4.64 Sudan has a long history in formulating food laws and legislation regarding food safety issues as far back as the early 1970s. At the national level, Sudan has been proactive in formulating laws and regulations for a SPS program, and there are a number of laws and regulations on the books covering agricultural inputs, commodities and food products. The country faces a challenge in harmonizing these laws with international regulations and agreements, most notably with the WTO SPS agreement.

4.65 **Build private capacity to meet standards.** The private sector plays an important role in the creation of SPS laws and regulations. This requires their understanding of SPS and the ability to carry out Good Management Practices that adhere to the standards throughout the value chain for agricultural products. The private sector in the North is more organized and has the capacity to incorporate SPS standards into their operations. The private sector in Southern Sudan is weak and has not emerged to offer a base from which to introduce GMPs. Public awareness campaigns will be essential in both the North and the South about the importance of SPS. The emphasis in the North would be directed more to the private sector, while in the South it would be targeted to the public sector until the private sector and exports emerge.

4.66 **Rationalize overlapping government mandates.** There is also a need to streamline existing regulations across several ministries and departments to make the inspection and certification system more efficient and effective. As shown in Box 4-1, there are at least nine federal agencies involved in SPS-related policies. This understates the coordination challenge, as the GoSS and state governments share responsibility for various aspects of food, animal, and plant safety. The number of ministries requesting authority for SPS needs to be narrowed to only a few, such as the MARF and MAF and not to a broad number of ministries. *Doing Business* 2008 reports that it takes 12 days to clear imports through customs and technical controls (see Table 4.5). Interviews conducted during the DTIS missions suggest much of this time could be eliminated through better coordination of physical inspections by CGA, SSMO, and other technical bodies.

4.67 **Build government capacity in Southern Sudan.** Although weak standards compliance capacity is arguably not the biggest factor in explaining the lack of agro-food exports from Southern Sudan, realizing the region's export potential will require building SPS capacity at all levels of government in the South. The relevant GoSS ministries also need to be integrated into Sudan's international standards efforts, contributing to the country's negotiation of standards protocols and participation in international standards bodies (e.g., Codex Alimentarius and the International Office of Epizootics).

### **Box 4-1. National Government Agencies involved in SPS**

At the federal level, there are at least nine major agencies involved in SPS policy and procedures.

- Sudan Standards and Metrology Organization: conducts inspections and quality certification of all import and export of food commodities; WTO SPS and TBT enquiry point;
- Central Veterinary Laboratory: operates 15 regional labs for conducting tests on animals and meat products;
- Administration of Animal Health/Department of Food Hygiene: responsible for inspection of diseases and carrying out certification procedures;
- Quality Unit, Ministry of Agriculture and Forestry: responsible for seed and pesticide regulations, including certification, registration and quarantines;
- Administration of Environmental Health and Food Control: responsible for hygiene control of import/export food commodities and the registration of all packaged foodstuffs, both locally produced and imported;
- Sudan Customs: carries out limited assessments of foodstuffs for customs duty; lead agency for clearance of imports and exports;
- Trade Facilitation Department, Ministry of Foreign Trade: initiates trade negotiations and creates a forum for exporters to raise their concerns about SPS issues; commercial attaches in Jeddah, Cairo, and Brussels;
- Commission for WTO Affairs: conducts negotiations with the WTO on compliance and implementation of the WTO SPS agreement; and
- Ministry of Industry: responsible for promoting Good Manufacturing Practices.

### **Strategy for Meeting Standards**

4.68 The DTIS team held a workshop in November 2006 with stakeholders from the public sector institutions in northern Sudan to discuss outlines of an internationally-recognized SPS program that increases Sudan's agricultural trade.<sup>81</sup> This three-year program would aim to achieve four results:

- An SPS action plan is developed.
- Institutions responsible for SPS are strengthened.
- Sudan's systems for inspection, testing, and reporting are recognized by importing countries.
- The private sector's SPS capacity is improved.

4.69 Subordinate results, time horizons, resource requirements and responsible actors are laid out in Appendix Table D-3.

### **FINANCIAL SERVICES**

4.70 Chapter 3 argues that, to succeed in increasing non-oil exports, agricultural producers and manufacturers will need to increase productivity. Although public sector support for research, technical extension programs, and transportation infrastructure are

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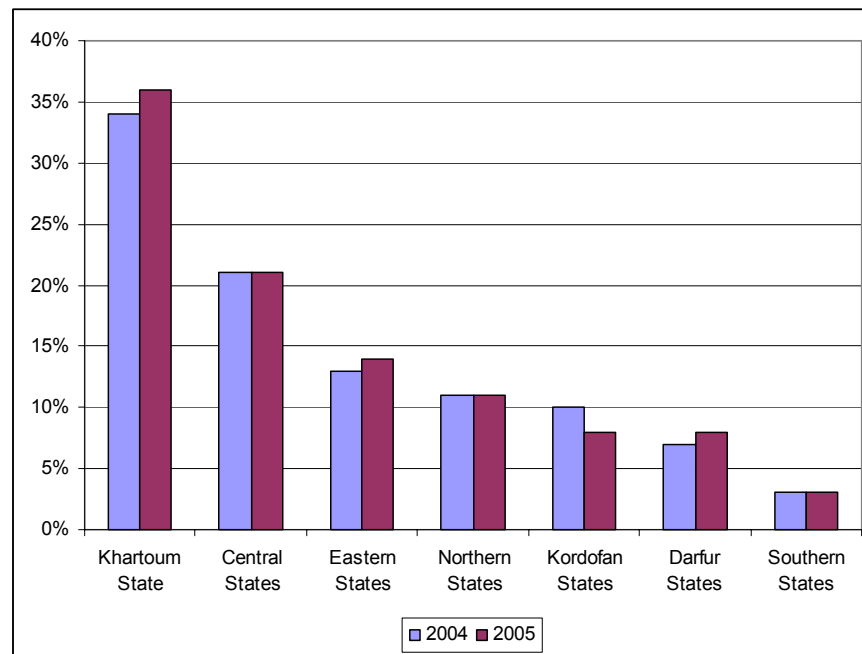
<sup>81</sup> The workshop was not attended by private sector stakeholders or public sector representatives from Southern Sudan.

important requirements, the private sector will need to invest in technologies that will raise productivity. If Sudan’s farmers and firms are to move towards international competitiveness, therefore, they must have access to affordable long-term financing with which to invest in newer, more efficient technologies, and be able expand their operations where appropriate, thereby benefiting from economies of scale.

### Weaknesses in the Banking Sector

4.71 Despite a comprehensive reform program launched in the late 1990s, increased foreign investment, and better banking sector regulation, Sudan’s financial system is relatively small, concentrated, and lacking in competition: The ratio of credit to GDP is lower than other countries in the region—15.5 percent, compared to 34 percent in Kenya and 84 percent in Egypt—and the lending-deposit spread is higher than in other countries in the region<sup>82</sup> The majority of bank branches are concentrated in the Khartoum and Central states, and most branches are in a few cities within these states (Figure 4-2). A number of states do not have any commercial bank branches at all. Furthermore, the soundness of the banking system has deteriorated over the past few years. Nonperforming assets are relatively high and provisioning is low. The Omdurman Bank, which represents over 40 percent of the country’s banking assets and deposits, required official intervention in 2007 and several injections of liquidity.

**Figure 4-2. Geographical Distribution of Bank Branches**



Source: Central Bank of Sudan, Annual Report 2005.

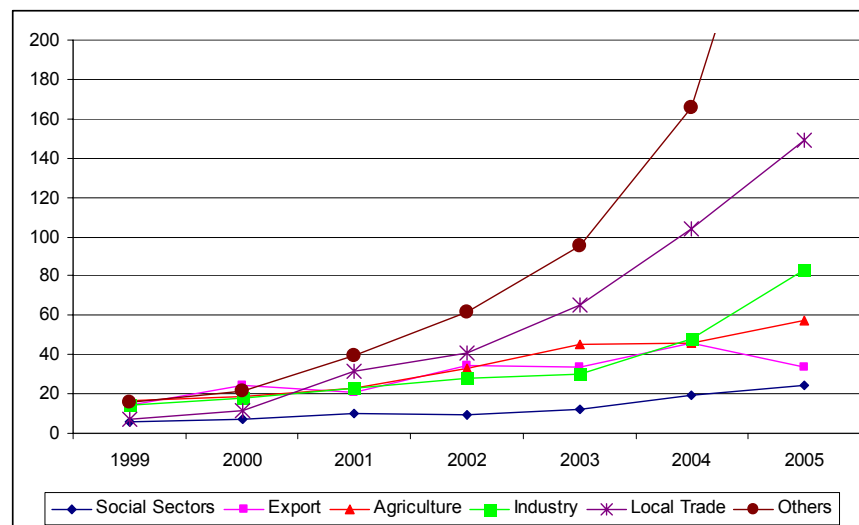
<sup>82</sup> IMF, “Article IV Consultation and Staff-Monitored Program,” Country Report No. 07/343 (October 2007).

## Lending Flows Mostly to Oil

4.72 Private sector credit has increased in the post-reform period. This has mostly been channeled to the oil sector and to domestic consumption linked to the oil boom. Increases in lending to the industrial, agricultural and export sectors have been relatively mild in comparison. In 1999 when directed lending quotas were still in force, the agriculture, export and non-oil industrial sectors were among the highest recipients of credit. Between 1999 and 2002 this policy was slowly loosened and abolished. Following this abolition, and the onset of the oil boom, growth in lending to the various sectors begins to diverge, and after 2002, growth in lending to the oil related sector (included in “Others” in Figure 4-3) and local trade far exceed all other sectors.

4.73 The banks’ reluctance to lend to the agricultural sector is unsurprising given that the sector was historically responsible for the vast majority of non-performing loans (around 80 percent of all NPLs in some estimates).<sup>83</sup> The current methods for lending to the private sector also provide a disincentive for the provision of agricultural credit. The most common mode for extending credit to agricultural producers is *Salam* lending. Under this mechanism, banks must recover the value of both the principle loan and any profit by taking receipt of crops from borrowers and then selling these crops at market prices. The obvious transaction cost and difficulty in selling this output at a price that would allow recovery of the principle both make this an unattractive prospect for a private sector firm looking to maximize profits.

**Figure 4-3. Gross Lending Flows by Sector, 1999–2005**



Source: Central Bank of Sudan.

Notes: “Others” is made up primarily of oil.

<sup>83</sup> Alexei Kireyev, “Financial Reforms in Sudan: Streamlining Bank Intermediation.” IMF Working Paper WP/01/53. May 2001.

## Foreign Participation

4.74 Sudan's banking sector is open to foreign participation, with no restrictions on the level of foreign capital in any given commercially-established bank in Sudan. Foreign banks may establish in the form of either branches or subsidiaries, with minor restrictions on temporary movement of labor.<sup>84</sup> Cross-border banking is also allowed.

4.75 Although the banking sector is ostensibly open to foreign participation, only two commercial banks are fully owned by foreign investors—the National Bank of Abu Dhabi (a branch of a foreign bank, partnered with the Bank of Khartoum), and the Real Estate Commercial Bank. A large proportion of foreign ownership in the banking sector appears to come from individuals and small groups of investors, rather than from large international banks. This is significant, because the latter bring with them the benefits of modern management skills, a strong capital base with which to support local branches and subsidiaries, and linkages to international trade facilitation services. Large foreign banks are also often able to sustain lower operating costs than domestic banks, thereby helping to lower interest rates spreads which benefits borrowers in general. Small groups of individual investors, while providing capital, cannot provide these wider benefits of foreign entry.

## Structural Barriers

4.76 The primary barriers to increased private sector credit, however, stem from structural problems in the banking sector that are common to many developing countries. There is a distinct lack of credit registries or any form of objectively verifiable information on the credit histories of borrowers. This makes it very difficult for banks to ascertain credit worthiness, especially among small and medium sized borrowers, and means that many potential borrowers are shut out of the market. This also limits effective competition among banks by restricting the ability of existing borrowers to move between lenders. Once borrowers have built up relationships with a particular lender, they will be reluctant to go to another institution since they may have to prove their credit worthiness from scratch and thereby face higher charges with the new lender. The resulting restriction of competition helps to maintain high lending costs for the whole sector.

4.77 There are also problems with current laws governing the ownership, leasing and transfer of land rights which affect the ability of borrowers to use land as collateral. At present, almost all land in Sudan is effectively owned by the government, and there are restrictions on the transfer of leases. Although leases may be legally transferred, registration of these transfers is not compulsory, and due to the cost of registration, many transfers are not registered. This makes it hard for a bank to be sure of the true ownership of real estate assets, which in turn increases the risk that a lender may not be able to take possession of collateral assets in the event of default. Lastly, there are no registries for moveable assets such as vehicles, machinery and consumer goods. The use of such assets

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<sup>84</sup> Only the general manager or deputy general manager of a bank, and no more than 10 percent of the workforce may be foreign nationals.

as collateral can be a useful tool for increasing access to credit for small and medium sized borrowers.

## **OTHER BACKBONE SERVICES: ENERGY AND TELECOMMUNICATIONS**

4.78 The availability of energy and telecommunications services is critically important for a country's export competitiveness. Highly priced and unreliable energy services raise production costs. Telecommunications networks are allowing businesses to connect to potential buyers and sellers. This section of the chapter briefly reviews the DTIS mission's findings.<sup>85</sup>

### **Electricity**

4.79 Chapter 3 reports that many manufacturers cite high electrical costs and unreliable service as a major impediment to exporting. Despite being subsidized, Sudanese energy prices are among the highest in the region, as shown in Table 3.13. Firms report shortages and blackouts of up to 30 percent of their production time, forcing most firms to acquire expensive generators to keep production running. As a result, according to interviews conducted with manufacturing firms, electricity costs take up 15–30 percent of the total cost of production.

4.80 Sudan's electricity output is generated using a combination of hydropower (30 percent) and thermal based energy generation (70 percent). This is achieved through a combination of power stations supplying the national grid and isolated diesel powered generator stations serving 14 large towns not yet connected to the national grid. The vast majority of total electricity consumption (70 percent) takes place in the Khartoum area, where most of the access provided by the national grid is concentrated. Across Sudan as a whole, only 15 percent of the population has access to either the national grid or isolated electricity networks, and in Southern Sudan, only three towns—Juba, Malakal and Wau—have partial access to diesel stations. The existing national grid only covers six states and northern parts of the Blue Nile, with 280 kV transmission line from Roseires hydropower station (generation capacity 280Mw) to the Khartoum area where most of the thermal generation capacity (654Mw) is installed.<sup>86</sup> Southern Sudan has particularly poor access to electricity services. It is also infeasible at this time to connect Southern Sudan to the existing national grid. The authorities are responding to this using a two stage plan, which involves the use of isolated diesel power stations in the South and other disconnected areas, which will then be linked together to form larger grids. In areas where hydropower is an option (especially the South), small scale hydropower stations are planned as a medium to long term solution for extending the regional grids. The GoNU has developed an ambitious program aimed at electrifying 70–80 percent of the country by 2020.

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<sup>85</sup> This section draws on Allaeddin Twebti, "Sudan Diagnostic Trade Integration Study: Services" (June 2007).

<sup>86</sup> *Sudan Joint Assessment Mission – Infrastructure Cluster Sub-Sector Note on Electricity*. World Bank, January 2004.



4.81 As a result, Sudan ranks low in terms of electricity consumption when compared to other countries in Africa and the Middle East, with 92kWh per capita (see Table 4.9). Sudan’s consumption levels falls below the average consumption for sub-Saharan African countries and low-income countries worldwide.

**Table 4.9. Average Electricity Consumption, 2003**

<b>Country</b>	<b>kWh per person</b>
Ethiopia	33
Tanzania	53
<i>Sudan</i>	92
Kenya	140
Yemen	165
Low income country average	375
Indonesia	478
Sub-Saharan Africa average	550
Egypt.	1215
Middle East & North Africa average	1289

*Source:* World Development Indicators. World Bank, 2006.

4.82 Demand for electricity services is growing rapidly with the current economic boom, as shown in Figure 4-4.

4.83 The expansion of supply through greater generation capacity as well as more efficient transmission and distribution systems is lagging behind. In response, the NEC has recently developed a five year plan to expand energy services to meet rapidly growing demand with the following provisions:<sup>87</sup>

- new thermal plants providing additional power capacity of 3,127MW, more than five times the peak load capacity in 2004;
- new hydropower plants, including the Merowe Dam, with a capacity of capacity of 1,250MW; and
- an additional 5,981 km of new transmission lines.

4.84 Taking into account all the planned methods of expanding generation, if all projects (thermal, hydro and isolated generation) were completed total network capacity would rise to around 6,587MW. Although a significant increase on current capacity, this installed capacity would be outstripped by growth in demand by 2015.<sup>88</sup>

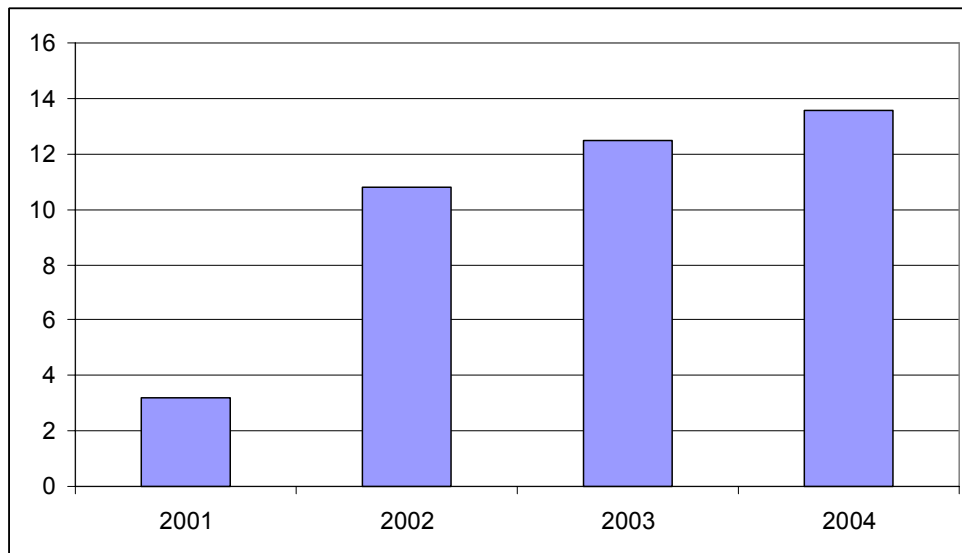
4.85 Given the scale of the costs involved in meeting Sudan’s expanding electricity needs, the authorities should therefore consider deepening the involvement of the private sector as a priority. The combination of private and public sector investment can poten-

<sup>87</sup> NEC Investment Guide, 2005-2011.

<sup>88</sup> Load demand is projected to read around 9,550 MW by 2015, according to a report entitled “*Opportunities for Power Trade in the Nile Basin – Final Scoping Study*” by the Joint UNDP/World Bank Energy Sector Management Assistance Programme (ESMAP), January 2004.

tially be used to accelerate the expansion of electricity services, by allowing private sector firms to engage in the more lucrative sectors of the market, while freeing up public sector funds to deal with areas that have been chronically underserved. The new Electricity Law, enacted in 2001, allows private participation in power generation, and the National Electricity Corporation has finalized Power Purchase and Implementation Agreement packages with three private firms that will increase the grid-based generation capacity with 500 MW of thermally generated power. Allowing private sector participation in transmission and distribution could help increase efficiencies in those areas.

**Figure 4-4. Annual Growth in Electricity Consumption, 2001–2004**



*Source:* DTIS mission calculations using Sudanese National Electricity Corporation data.  
*Note:* Year-on-year growth in per capita electricity consumption.

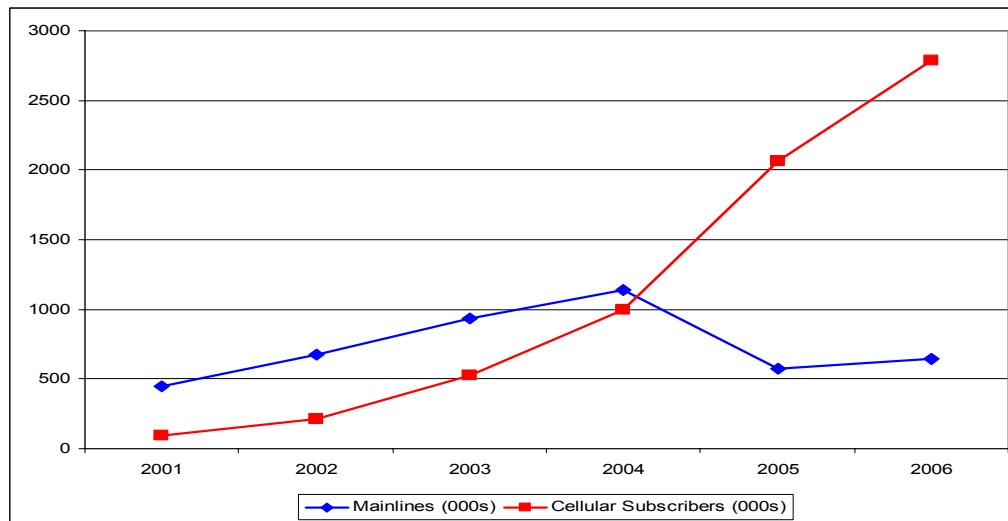
4.86 Increased private sector participation will require strengthened regulation and oversight. The Ministry of Electricity currently oversees the sector. The presence of an independent regulator (rather than regulation through a ministry) is often a key step in developing a competitive environment that attracts investors and protects consumers. Setting up an independent regulatory body for the electricity sector would lay the ground for increased private sector participation.

### **Telecommunications**

4.87 Access to telecommunications services has become a prerequisite to effective integration into the world economy. The development of Sudan’s telecommunications sector has largely been a success story in the North, where market entry by international providers has driven down costs and allowed mobile subscription levels to increase by more than 30 fold between 2001 and 2006. But a lack of consensus regarding regulatory jurisdiction has prevented these benefits from flowing to Southern Sudan. The quality of services has not developed as quickly as in the rest of the country. Connectivity is low and many users rely on a range of local and foreign services, as well as satellite phones, to maintain constant access to telephone services. In addition, the lack of road infrastructure in the region, as well as the need for de-mining of significantly large areas, hinders

the expansion of the physical infrastructure required for extending mobile services in the South. The GoNU and GoSS have recently tried to address this issue, and have agreed a broad framework for regulatory harmonization. Without a comprehensive, predictable and transparent framework for regulation of the sector, the telecommunication problems in Southern Sudan will continue (Figure 4-5).

**Figure 4-5. Growth in Mainlines and Cellular Subscribers, 2001–2006**



Source: National Telecommunications Corporation.

## SUMMARY

4.88 A lesson that emerges from recent experiences of fast-growing economies is that strong trade facilitation institutions, the capacity to meet prevailing international standards, and availability of high-quality backbone services at world market prices are critical to competing effectively in world markets. The DTIS team finds that Sudan enjoys these in certain areas or is undertaking efforts to develop them. For example, infrastructure improvements throughout the country are a major element of the post-JAM work program; the CGA is a well-equipped, well-trained, professional organization; and telecommunications liberalization has enabled the rapid expansion of connectivity in the North. The DTIS team also finds, however, a number of areas where significant improvements are needed.

4.89 Weaknesses in certain areas of trade facilitation constrain Sudan's integration into the world economy, undermine competitiveness, and prevent full collection of non-oil revenues.

- **Sudan has not exploited the container revolution in transportation.** The absence of internationally-integrated logistics services providers and privately operated inland container depots contribute to this problem.
- **Customs operations are not yet fully integrated at the national level.** Significant investments in staffing, training, and equipment are needed in the South to back up the political commitment to integrate customs administration

throughout the country. Given the present state of private sector development in the South, the collection of customs duties and VAT on imports represents a significant source of potential non-oil revenues.

- **Port Sudan is costly.** Both high port fees and slow clearance of goods impose high costs on international trade. A time release study is needed to identify the main sources of clearance bottlenecks.

**4.90 Compliance with foreign countries' food, plant, and animal safety standards is a critical requirement of boosting non-oil exports and raising rural incomes.** Sudan's inability to meet foreign standards is at times a binding constraint on agricultural exports. Even when non-compliance with these standards does not fully halt exports, as has been the case with live sheep in certain years, failure to meet importing countries' standards prevents exporters from receiving the best prices for their products. The private sector needs to increase its awareness and capacity of standards. Both public and private sector capacity for meeting these standards needs to be constructed in the South before producers there can tap into the region's great potential for agricultural exports. Many government agencies have mandates over the SPS regulations that are applied to imports.

**4.91 Sudan has had mixed success at delivering backbone services at world prices.** Sudan has opened the provision of backbone services to private sector participation and eliminated most restrictions on foreign investment in banking, telecommunications, and power—three services that are critical to export competitiveness. This liberal regime has facilitated the rapid expansion of telecommunications connectivity in the North. There is considerable foreign investment in the banking sector. Nevertheless, more needs to be done:

- Foreign investors in the banking sector have, for the most part, not been international banks. Sudan consequently has not benefited from transfers in management practices and integration into global networks that typically accompany FDI in banking.
- Electricity costs are among the highest in the region. Demand has grown rapidly with the oil boom, outstripping supply. Planned investments in generation should lead to lower electricity costs over the medium term.
- Due to differences in views between the GoNU and GoSS over telecommunications regulations, the explosion in telecommunications connectivity enjoyed in Khartoum and other parts of the North has not prevailed in the South.

## 5. CONCLUSIONS: RECOMMENDATIONS FOR A PRO-POOR TRADE POLICY

5.1 The DTIS argues that a pro-poor and pro-peace trade strategy which improves livelihoods of the poor requires expanding non-oil exports by revitalizing traditional agricultural exports and developing new export products. Elements include finding new markets for existing exports, moving up the value chain into higher value products, develop new exports in both manufactures and agriculture (e.g., horticulture). Some prerequisites are in place: Sudan enjoys macroeconomic stability, a long history of successfully exporting a range of agricultural commodities and recent peace and security to (re)establish international commercial linkages that were inhibited during wartime. These can provide the foundation for export-led growth. Capitalizing on this foundation requires additional steps in four areas: raising productivity, reducing trade costs, rationalizing the incentive regime, and improving institutions for trade promotion and trade policy making. A draft action matrix of indicative priorities for technical assistance and policy reforms is presented in Table 5-1.

### RAISE PRODUCTIVITY OF KEY EXPORT PRODUCTS

5.2 Low productivity across a wide range of activities hinders Sudan's ability to compete in world markets. Agricultural yields are low, especially in Southern Sudan, and for many crops have been declining. Manufacturing establishments suffer from obsolete equipment, shortages of skilled labor, and excess capacity. Raising incomes of the poor, particular those in rural areas, requires first and foremost increasing productivity.

#### **Increase Agricultural Productivity**

5.3 **There is an urgent need to increase investment in agricultural research, extension, and dissemination of technology that can increase yields of crops and livestock with large export potential**, e.g., cattle, cotton, groundnuts, gum arabic, sesame, sheep, and sorghum. Financial assistance from donors will be critical to this effort, which will involve a range of agencies, including the Agricultural Research Corporation, the Livestock and Fisheries Research Corporation, the Ministry of Science and Technology, and the GoNU and GoSS ministries responsible for agriculture and livestock.

5.4 Improving Southern Sudan's limited network of rural roads would go hand-in-hand with agricultural research and extension: Unless farmers are able to transport increased output to urban markets for sale, they have no incentive to invest in or adopt new technologies. Similarly, this would also facilitate bringing more land into agricultural production.

5.5 To help develop a longer-run agricultural trade strategy, it would be helpful to conduct an examination of how institutional structures underlying the three major farm-

ing systems (traditional rain-fed, semi-mechanized, and irrigated) shape the rural sector's contribution to exports, growth, and poverty reduction. Farm size, land ownership, access to credit, access to knowledge, and other structural factors determine how farmers and pastoralists invest in more productive agricultural technologies, respond to market incentives, and produce for export markets. Reforms like those underway in the Gezira Scheme may be required. The MDTF (National) Technical Assistance Facility is financing a critical assessment of these issues.

## **Increase Productivity in Manufacturing**

**5.6 Increasing productivity in manufacturing will require increasing firms' access to capital for modernizing equipment and improving vocational education to address shortages of skilled labor.** Some specific measures include the following:

- establish or upgrade training centers for leather processing, textiles, meat processing, and other manufacturing industries
- promote joint ventures with multinational firms as a means of introducing new technologies (and establishing linkages with foreign buyers and sellers)

**5.7** Assistance from donors and international agencies (e.g., UNIDO) will be critical to support vocational education. In the longer term, it would be important to undertake a review of educational systems to elaborate an integrated development strategy for vocational education and training, aimed at meeting the needs of the larger industrial sector in terms of workforce, but also promoting intra-industry linkages through the creation of small and micro enterprises.

## **REDUCE TRADE COSTS**

**5.8** Reducing the costs of bringing goods to world markets is a second priority area. The most critically-needed actions to reduce cross-border trade costs include the following:

**5.9 Build a nationally-integrated, modern customs administration:** This will require a major program to recruit, train, and equip staff for customs operations in Southern Sudan. Several international organizations (including FIAS, IMF and UCTAD) have identified needed national reforms, including introduction of risk-based selection in customs clearance nationwide; building capacity for post-clearance verification and audits; and streamlining clearance requirements.

**5.10 Foster the development of an internationally integrated trade logistics services industry:** Private sector organizations should seek technical assistance from FIATA to build the local freight forwarding industry's capacity. An in-depth investigation is needed to identify the conditions or policies that prevent foreign entry into the local trade logistics sector. Increased commercial presence of international banks would also facilitate access to global trade logistics and financial services that facilitate international commerce.

5.11 **Build domestic capacity to meet foreign animal, food, and plant safety regulations:** In the private sector, this will require educating firms to adopt Good Management Practices. In the public sector, this will require building SPS capacity in GoSS ministries and state governments to supplement existing capacity at the national level, and eliminating overlapping mandates for SPS regulations.

5.12 **Reduce bottlenecks, fees, and charges at Port Sudan:** Conducting a WCO time-release study would help the authorities identify the relative importance of different factors that contribute to delays. Creating a one-stop shop for import clearance would help reduce delays and multiple fees that are caused by the presence of multiple agencies clearing goods. Implementing the planned reform of the container terminal at Port Sudan, which include concessioning the terminal and bringing fees closer into line with the cost of services, would help to reduce port charges.

5.13 Some of these measures would benefit from increased financial assistance from donors, particularly efforts to build customs and SPS capacity in Southern Sudan, and technical assistance from international organizations active on trade facilitation issues.

#### **RATIONALIZE THE INCENTIVE REGIME**

5.14 The third set of priorities involves rationalizing the incentive regime. The number, level, and predictability of taxes discourage international trade by introducing disincentives to exporting and raising costs of doing business in Sudan. Introducing greater coherence to taxes, fees, and charges collected at different levels of government would support GoNU and GoSS efforts to reduce their dependence on oil revenues. In addition, a number of trade policies have been introduced to promote production of particular products at the expense of downstream users (e.g., protection of sugar producers at the expense of potential exporters of pharmaceuticals and processed foods) or upstream suppliers (e.g., protection of leather producers at the expense of hides and skins exporters). Such trade policies have the unintended consequence of making it harder for Sudanese producers to exploit comparative advantages that exist at different stages of products' value chains.

5.15 **The most immediate priority is to simplify and harmonize taxes, fees, and charges levied by different government agencies.** The sheer multiplicity of these taxes is cited by producers throughout the economy as undermining their export competitiveness. Simplifying the tax regime would reduce fiscal administration costs and likely increase revenue collections. Specific steps to consider include the following:

- establishing a one-stop shop to centralize collection of revenues from imports
- eliminating all taxes applied solely to international trade (other than ordinary customs duties) and setting any fees and charges according to the cost of rendering the applicable service to users (e.g., port fees, Department of Pharmaceutical fees, clearing certificate fees)
- eliminating local taxes imposed on inter-state commerce
- combining fees related to customs clearance

5.16 During the annual budget exercise, it would be useful to conduct a comprehensive inventory of different taxes, fees, and charges, and the authority of agencies to introduce new taxes, fees, and charges should be curtailed. There is a need to conduct a fiscal federalism review to inform an assignment of fiscal responsibilities (both revenue collection and spending) across all levels of government that promotes greater national and international economic integration.

**5.17 Introducing greater inter-sectoral neutrality and predictability into trade policies, as well as eliminating measures to restrict exports, would also enhance Sudan's export competitiveness.** A number of policies explicitly restrict exports, such as the sole concession on gum arabic exports, export taxes on hides and skins, and the practice of temporarily revoking sorghum export licenses. Eliminating these restrictions would raise incomes of domestic producers. Using taxes, import tariffs, and price interventions to favor one industry or stage of production implicitly and inevitably discriminates against exports of other products. Interventions that elevate the domestic price of sugar and practices that restrict the use of imported inputs in textiles and edible oil production are two examples. Gradually reducing tariff rates while phasing out industry-specific tariff exemptions would generate greater economic efficiencies from lower tariff rates while preserving tariff collections.

#### **IMPROVE INSTITUTIONS FOR TRADE PROMOTION AND POLICY MAKING**

5.18 Improvements in trade institutions are needed to convert measures to raise productivity, reduce trade costs, and rationalize the incentive regime into a coherent trade strategy that can boost exports and reduce poverty. Three areas in particular are important: enhancing trade promotion institutions, building trade policy capacity in the South, and reducing fragmentation in the trade policy-making process. Donors and international agencies (e.g., ITC, UNCTAD, and WTO) have well-established programs that could provide technical and financial assistance.

**5.19 The first priority is to create effective trade promotion institutions in the South and improve them in the North.** Establishing a Trade Point in Juba, merging Trade Point and Trade Information Center operations in Khartoum and commissioning market research reports would help potential exporters find new markets for existing exports as well as provide market intelligence needed for firms to develop new export products. The horticulture export facility operated by SSMO and the Khartoum State Ministry of Agriculture should be replicated in the South.

**5.20 Building trade policy capacity of the GoSS and business organizations in the South is a second priority.** The South needs the capacity to identify its trade priorities, see those reflected in national policies, and exploit opportunities offered by Sudan's membership in COMESA and other international trade arrangements. Some of the most critical steps include the following:

- provide donor-supported trade experts to the MCI and other GoSS ministries involved in trade issues
- establish training programs on trade and competitiveness issues for GoSS staff



- improve information technology capabilities to support access to international trade information
- increase private sector awareness of international commercial practices and in complying with foreign trade regulations (e.g., satisfying COMESA rules of origin)

5.21 **Increase coherence in trade policy making.** This will require better coordination within the national government, between the national government and the GoSS, and between all levels of government and the private sector. Creating a “Consultative Economic Council” with a mandate that covers the broader trade and competitiveness agenda could be one very helpful measure. Consolidating the numerous trade-related consultative bodies and institutionalizing public-private dialogue would support a more consistent and predictable trade policies. More effective coordination mechanisms will help the country take full advantage of opportunities offered by membership in the World Trade Organization and other international trade agreements.

**Table 5.1. Final Action Matrix**

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<b>I. Increase Productivity in Export Sectors</b>				
<b>A. Increase resources for agricultural, animal husbandry and fisheries and micro-agro- industrial research</b>				
<ul style="list-style-type: none"> <li>• Staff, equip, and fund research into raising yields of existing and potential exports</li> <li>• 2% of agricultural GDP spent on research over 5 years</li> <li>• Select priority sectors for targeted research efforts, with specific sequencing of activities over a five year time-frame</li> <li>• Carry out land tenure policies and studies</li> <li>• Adopt input subsidies policy to small agricultural producers</li> <li>• Coordination of research institutions at the national level.</li> <li>• Strengthen &amp; support production and marketing cooperatives and establish export centres.</li> <li>• Provide credit support to small agricultural producers and to potential agricultural export products.</li> <li>• Creating awareness for market access and competitiveness</li> </ul>	High	<p>Agricultural Research Corporation, Livestock and Fisheries Research Corporation, Ministry of Science and Technology,</p> <p>Universities, GNU and GoSS relevant ministries- Ministry of Commerce &amp; Trade, Animal resource &amp; fisheries, Agriculture &amp; Forestry.</p>	5 years	Equipment, study programs, experts

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<p><b>B. Strengthen agricultural, Agro-industrial, animal husbandry and fisheries extension services</b></p> <ul style="list-style-type: none"> <li>Strengthen extension programs to disseminate technology and practices for increasing yields</li> <li>Select priority sectors for targeted extension efforts, with specific sequencing of activities over a five year time-frame</li> <li>Enhancing the capacity of technology transfer and extension services using the village as a center for providing services and agricultural knowledge in line with the ARP.</li> </ul>	High	GNU and GoSS ministries of agriculture, livestock, fisheries, forestry; Agricultural Research Corporation, Livestock and Fisheries Research Corporation, National Farmers Union, Farmers union in Southern Sudan, and other relevant extension services	5 years	Trainer training, equipment
<p><b>C. Establish vocational education in agriculture and manufacturing</b></p> <ul style="list-style-type: none"> <li>Establishing training programs in marketing services of major agricultural export at trade schools and universities</li> <li>Establish training centers equipped with latest textile training machinery</li> <li>Develop integrated human resources development program to improve quality of hides, skins, and leather, poultry and diary products.</li> <li>Establishing animal breeding training centre</li> </ul>	Medium	GNU and GoSS ministries of industry, agriculture & forestry, livestock and fisheries, ministry of industry & commerce and ministry of cooperative and rural development southern Sudan	3 years	Study programs, papers on best practice, equipment

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<b>II. Reduce Trade Costs</b>				
<b>A. Raise capacity of customs administration in Southern Sudan to national standards</b>				
<ul style="list-style-type: none"> <li>Recruit, train, and equip customs staff in Southern Sudan</li> <li>Integrate customs operations at southern borders into nation-wide administration</li> </ul>	High	Customs General Administration, Ministry of Finance and National Economy, GoSS	5 years	Equipment, study programs
<b>B. Improve trade logistics services</b>				
<ul style="list-style-type: none"> <li>Permit private investment in and management of inland container depots</li> </ul>			1 year	
<ul style="list-style-type: none"> <li>Permit corporate entities to provide customs clearance services</li> <li>Provide technical assistance for freight forwarders from the International Federation of Freight Forwarders Associations (FIATA)</li> </ul>	High	Customs General Administration, GNU and GoSS Ministries of Finance, Transport Chamber, MCI GoSS	2–3 years 1-2 years	Study program, papers on best practice
<ul style="list-style-type: none"> <li>Conduct comprehensive review of regulatory framework governing entry and operation of trade logistical services providers</li> </ul>			1 year	Consultants
<b>C. Reduce bottlenecks at Port Sudan</b>				
<ul style="list-style-type: none"> <li>Conduct WCO time release study to clarify contributors to bottlenecks</li> </ul>		Customs General Administration	1 year	Expertise from WCO and other agencies
<ul style="list-style-type: none"> <li>Introduce electronic single window for all border clearance operations (see below)</li> </ul>	Medium	Custom General Administration/ Port Authority	1 year	
<ul style="list-style-type: none"> <li>Accelerate concession of port management</li> </ul>		Ministry of Transport SPC	1-2 years	

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<ul style="list-style-type: none"> <li>Raise storage fees to discourage use of port facilities as a warehouse.</li> <li>Introduce one-stop shop for all border clearance operations</li> </ul>	High		1 year	
<b>D. Build/improve SPS capacity</b>				
<ul style="list-style-type: none"> <li>Develop nation-wide standards action plan with the objective of reducing regulatory overlap and increasing investment in key trade-related functionalities and enhancement of rules supporting implementation</li> </ul>	High	SSMO, GNU and Goss, Goss Grades and Standards, Ministries of Agriculture, Livestock, Fisheries, Forestry and Industry and Trade	1 year	Consultants
<ul style="list-style-type: none"> <li>Launch campaign to raise awareness of quality assurance, food safety and regulatory compliance among producers, especially those in Southern Sudan</li> </ul>	Medium	SSMO, GNU and Goss, Goss Grades and Standards, Ministries of Agriculture, Livestock, Fisheries, Forestry and Industry and Trade.	2-3 years	Papers on best practice
<ul style="list-style-type: none"> <li>Provide extension services to producers to introduce Good Management Practices (especially along value chains for livestock/meat, horticulture, and processed foods).</li> </ul>	High	SSMO, GNU and Goss, Goss Grades and Standards, Ministries of Agriculture, Livestock, Fisheries, Forestry and Industry and Trade.	3 years	Trainer training
<ul style="list-style-type: none"> <li>Strengthening institutions responsible for SPS activities</li> </ul>			2-3 years	
<b>E. Streamline national customs procedures and harmonize them with WTO rules</b>				
<ul style="list-style-type: none"> <li>Revise customs laws to comply with WTO rules on valuation, appeals, etc.</li> </ul>			1 year	
<ul style="list-style-type: none"> <li>Undertake institutional changes to introduce risk-based selection: develop risk profiles, introduce post-clearance activities, etc)</li> </ul>	Medium	Customs General Administration	2 years	

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<b>III. Rationalize Incentive Regime</b>				
<b>A. Simplify and harmonize taxes, fees, and charges</b>				
<ul style="list-style-type: none"> <li>Introduce single window for all border clearance operations. The organizing body to be identified with mandate to issue directives.</li> </ul>	High	Customs General Administration, SSMO, and other agencies operating at the border GoSS Ministries of Finance, Commerce and Industries.	1-2 years	Training and study program, consultants and equipments
<ul style="list-style-type: none"> <li>Eliminate taxes on imports other than ordinary customs duties (i.e., “other duties and charges”).</li> </ul>	High	Ministry of Finance and National Economy and GoSS Ministry of Commerce and Industries	1 year	More technical assistance to include equipments
<ul style="list-style-type: none"> <li>Undertake state-level review with the objective of rationalizing sub-national taxes and fees levied on interstate trade, in light of the state and lower level legal framework</li> </ul>	High	GNU, GoSS, and 25 States’ Ministries of Finance	2 years	Consultants, paper on international best practice and equipment
<ul style="list-style-type: none"> <li>Harmonize taxes on crops and livestock.</li> </ul>	Medium		1 year	
<b>B. Eliminate measures that restrict exports</b>				
<ul style="list-style-type: none"> <li>Harmonize export tax on raw hides and skins to allow for policy space to encourage the local manufacturing of leather and leather products.</li> </ul>	High	Ministry of Finance and National Economy, Ministry of Foreign Trade	1 year	
<ul style="list-style-type: none"> <li>Reduce scope for discretion in sorghum export licensing and allow for flexibility to deal with food shortages.</li> </ul>				
<b>C. Introduce more uniformity and predictability into trade policies</b>				
<ul style="list-style-type: none"> <li>Adopt single, nation-wide tariff schedule for all imports</li> </ul>	Medium	GNU and GoSS ministries of finance and investment, Foreign Trade, Commerce and Industries	1 year	Training in tariff analysis
<ul style="list-style-type: none"> <li>Conduct a study on viability of free zones and Exports Processing Zones.</li> </ul>			1 year	Papers on best practice

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<b>IV. Strengthen Trade Promotion and Policy-making Institutions</b>				
<b>A. Build capacity for GoSS to contribute to national trade policy-makings</b>				
<ul style="list-style-type: none"> <li>Establish channels of international technical input on priority policy issues, through a combination of resident trade advisors in MCI and other trade-related agencies as well as non-resident assistance.</li> </ul>	High	GONU (MoFT, MARF, MoA)-GOSS (MCI,MARF,MAF)		Resident trade advisers and consultants
<ul style="list-style-type: none"> <li>Develop foreign trade and investment promotion strategy for Southern Sudan to enabling GoSS to contribute on national policy.</li> </ul>	High	MoF,MoAF, GOSS (MCI,MARF,MAF,MFEPD)		Study programs, papers on best practice,
<ul style="list-style-type: none"> <li>Establish training programs on export competitiveness, trade policies, and trade agreements for GoSS and private sector bodies.</li> </ul>	Medium	MoFT,MCI, Chamber of Commerce	2–3 years	Marketing and evaluation system
<ul style="list-style-type: none"> <li>Invest in IT for trade-related information systems, data management, analysis and dissemination.</li> </ul>	Medium			Equipment and training
<ul style="list-style-type: none"> <li>Establish systematic regular cooperation between MoFT and MCI</li> </ul>	Medium	MoFT, MCI		Best practice note, expertise
<ul style="list-style-type: none"> <li>Build capacity for GoSS to contribute to national trade policy-making.</li> </ul>	High			
<b>B. Improve trade promotion services</b>				
<ul style="list-style-type: none"> <li>Establish Trade Points in Southern Sudan</li> <li>Establish trade information centre in Southern Sudan.</li> </ul>	Medium	GNU (MoFT) and GoSS (MCI), Chamber of commerce	3 years	Support from ITC and other International agencies

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<ul style="list-style-type: none"> <li>Identify technical requirements for access to alternative livestock, fisheries and meat export markets.</li> <li>Identification of Poor's tradable goods, mainly in the rural areas.</li> </ul>	Medium	SSMO and Grades and Standards, GNU and GoSS Trade and livestock ministries (GoSS MCI and MARF)		Consultants for market research and market survey
<ul style="list-style-type: none"> <li>Establishment of share-holding company owned by the poor themselves at the local and state levels for exports to eliminate intermediaries profit and minimize other related costs. Alternatively, for other cases, establishment of effective social safety nets.</li> </ul>	Medium	MoA, MoFisheries, MoAnimal Resources of GNU		Consultants, training
<ul style="list-style-type: none"> <li>Formulation of good governance practices and anti-corruption laws, acts and other legislative requirements to protect the poor's incomes.</li> </ul>	High	MCI, MAF and MARF of GOSS		Studies, training, benchmarking tools, best practice notes
<ul style="list-style-type: none"> <li>Data dissemination about export market prices.</li> <li>Information on related preferential markets.</li> </ul>	High	MoFT, MoF, private sectors and MFEPD of GoSS		Training on negotiation
<ul style="list-style-type: none"> <li>Strengthen capacity of public and private trade development institutions</li> </ul>	Medium	MoFT, MoA and MARF of GONU and MCI, and MAF and MARF of GOSS		Consultants, Studies, Equipment
<ul style="list-style-type: none"> <li>Strengthen National Export Promotion Council</li> </ul>	High	GNU and GoSS trade ministries, of Agriculture, of Animal Resources and private sector,		Training & capacity building
<ul style="list-style-type: none"> <li>Develop national and sectoral export strategy to identify export potential products</li> </ul>	High	MARF, MAF		Training on negotiators



Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<b>C. Help exporters maximize benefits from trade agreements</b>				
<ul style="list-style-type: none"> <li>To support EPA negotiations, conduct a study to identify means of meeting European regulatory requirements.</li> </ul>	High	MoFT, CWTOA, MoIC, Sectoral Ministries		Resident consultant, trade specialists
<ul style="list-style-type: none"> <li>Creating awareness about challenges benefits of membership in the WTO and the process of accession.</li> </ul>	High	GoNU, MoFT, CWTOA,, SSMO GoSS-MCI (Grades and Standards), NGOs and state governments		Experts, study tours best practice notes
<ul style="list-style-type: none"> <li>Establish program to train private sector organizations in meeting COMESA and other preferential agreements' rules of origin requirements.</li> </ul>	Medium	MoFT, MoI, private sector, societies, Commercial attachee, MCI, MME-GOSS		Papers on best practice, training
<ul style="list-style-type: none"> <li>Establish a PPP on MTS (multilateral trading system).</li> </ul>	High	MoFT, CWTOA	(none indicated)	Consultants, Study tools
<ul style="list-style-type: none"> <li>Commission marketing studies identifying export opportunities in preferential markets.</li> </ul>	Medium	MoFT, Ministry of industry, private sector, societies, Commercial attaches		
<ul style="list-style-type: none"> <li>Strengthen the export strategy capacity in Sudan</li> </ul>	High	MCI, MME-GOSS		
<ul style="list-style-type: none"> <li>Elaborate an in-depth national export strategy</li> </ul>	Medium	MoFT. MoA. MAR.MOI. CWTOA		Studies, consultants, and equipment
<ul style="list-style-type: none"> <li>Identify products and services with high potentials, contributing to diversification of exports .</li> </ul>	Medium	MoFT. MoA. MAR.MOI. CTWOA. Private Sector		
<ul style="list-style-type: none"> <li>Undertake sector export strategies</li> </ul>				
<b>D. Increase coordination in trade policy making</b>				
<ul style="list-style-type: none"> <li>Formulate trade policy for Sudan and strengthen trade policy in overall policy setting</li> </ul>	High	MoFT, MFNE,CWTOA	3 years	Best practice papers, consultants Equipments
<ul style="list-style-type: none"> <li>Institutionalize coordination between trade policy making and other relevant bodies through "Consultative Trade Policy Council"</li> </ul>	High	MoFT (chair), CA, CBOS, BOSS, CWTOA, MCI, MFNE, private sector institutions, port authority, MoAR, MoA,		

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<ul style="list-style-type: none"> <li>• Study to clarify responsibilities between relevant bodies.</li> <li>• Strengthen and institutionalize public-private cooperation.</li> <li>• Strengthen Export Credit and Guarantees Agency through capital and awareness raising.</li> </ul>	<p>Medium</p> <p>High</p> <p>Medium</p>	<p>MoFT (chair), CA, CBOS, BOSS, CWTOA, MCI, Cabinet Committee, MFNE, private sector institutions, port authority, MoAR, MoA, SSMO</p> <p>MARF, MAF, MFEPD AND MCT(chair) FOR GOSS</p> <p>MARF, MAF, NAIFE and MFEPD, MCT(chair) for GOSS</p>		
<p><b>E Improve awareness on trade policy issues</b></p> <ul style="list-style-type: none"> <li>• Broaden mandate of NDTPF on public awareness and coordination to all trade negotiations.</li> </ul>	<p>Medium</p>	<p>MoFT, CA, CWTOA, MFNE, MoI, MoA, SSMO, SBF, MARF, MAF, MFEPD AND MCT</p>	<p>3years</p>	<p>Equipment, training, consultants, best practice notes</p>
<p><b>F Strengthen National Export Promotion Council</b></p> <ul style="list-style-type: none"> <li>• Training staff</li> <li>• Link to best practice institutions</li> <li>• Link to private sector</li> </ul>	<p>High</p>	<p>MoFT (chair), MFNE, private sector, MFEPD, MCT and Chamber of Commerce-GOSS</p>	<p>3 years</p>	<p>Equipment, training, consultants, studies</p>
<p><b>G Strengthen trade policy making capacity</b></p> <ul style="list-style-type: none"> <li>• Modernize units for multilateral, regional (WTO, GAFTA, COMESA, COMSEC, GSP, GSTP) and bilateral negotiations</li> <li>• Training of staff (English, computer, trade economics, trade law)</li> <li>• Establish monitoring and evaluation capacity</li> <li>• Strengthen trade missions in key embassies</li> </ul>	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p>	<p>MoFT (chair), MFNE, private sector, MFEPD, MCT and Chamber of Commerce-GOSS</p>	<p>5 years</p>	<p>Training, equipments, expertise</p>

Actions	Priority	Responsible entities	Expected duration of action	Indicative TA Needs
<ul style="list-style-type: none"> <li>Strengthen trade policy department to implement and monitor new laws, including anti-dumping, competition, and trade regulation laws</li> </ul>	High			
<ul style="list-style-type: none"> <li>Strengthen and modernize MoFT state offices</li> </ul>	Medium			
<b><i>H Strengthen information, research and training in support of trade policy making</i></b>				
<ul style="list-style-type: none"> <li>Awareness raising and training in trade GoNU, GOSS states issues (Foreign Trade Institute to be created).</li> </ul>	High			
<ul style="list-style-type: none"> <li>Strengthen trade information system on federal and state level.</li> </ul>	Medium			Training, expertise, cooperation with ITC and other institutions, best practice papers
<ul style="list-style-type: none"> <li>Establish modeling capacity to evaluate costs and benefits of new trade agreements.</li> </ul>	High	CBOS, CBS, MoFT, MCI, MFNE, academic institutions, TIC, BOSS AND MFEP	5 years	
<ul style="list-style-type: none"> <li>Review and improve capacity to review trade policy regularly.</li> </ul>	High			
<ul style="list-style-type: none"> <li>Increase awareness raising, information and research capacity on trade and environment and trade and poverty.</li> </ul>	High			

CA: Customs Authority  
CBOS: Central Bank of Sudan  
CBS: Central Bureau of Statistics  
ITC: International Trade Centre  
MAR: Ministry of Animal Resources  
TIC: Trade Information Centre  
MoA: Ministry of Agriculture  
MoFT: Ministry of Foreign Trade  
MCI: Ministry of Commerce and Industries  
CA: Customs Authority  
CBOS: Central Bank of Sudan:  
CBS: Central Bureau of Statistics  
CWTOA: Commission for WTO Affairs

MFNE: Ministry of Finance and National Economy  
NDTPF: National Development and Trade Policy Forum  
SBF: Sudanese Businessman Federation  
SSMO: Sudanese Standards and Meteorological Organization  
MARF: Ministry of Animal Resources and Fisheries  
MME: Ministry of Mining and Energy  
MFEPD: Ministry of Finance economic Planning and Development  
BOSS: Bank of southern Sudan  
SGD: Standards and Grading Dept.  
MFNE: Ministry of Finance and National Economy  
NDTPF: National Development and Trade Policy Forum  
SBF: Sudanese Businessmen Federation  
NAIFE: National Agency for Insurance and Finance of Export

## APPENDIXES

### APPENDIX A: PREFERENCE UTILIZATION

**Table A-1. Utilization of COMESA Preferences in Kenya, 2004–2005**

<b>Trade and Duty Values (in Kenyan shillings)</b>	<b>All Products</b>	<b>Excl Sugar</b>
Total Shipments	233,325,582	31,527,350
Dutiable trade (MFN tariff >0)	223,483,619	21,685,387
Share of trade in duty-free lines	4%	31%
Trade using preferences	204,048,682	2,250,450
Share of eligible trade using preferences	91%	10%
Share of total trade using preferences	87%	7.1%
Potential value of preferences	205,274,317	3,476,085
Value of preferences received (MFN duties foregone)	160,502,035	223,019
Preference utilization rate	78%	6.4%
Potential preferential margin on dutiable trade	92%	16%
Realized margin on trade eligible for preferences	72%	1.0%
Value of preference received as a share of total shipments	69%	0.7%
Exchange rate: Sudanese dinar per Kenyan shilling	3.24	

*Source:* DTIS team calculations using import and customs data from KRA. Exchange rate data from IMF IFS.

Notes: Average of data for 2004 and 2005.

**Table A-2. Utilization of COMESA Preferences in Uganda, 2004–2005**

<b>Trade and Duty Values (in Ugandan shillings)</b>	<b>2005</b>	<b>Excl. Used Clothes</b>	<b>2004</b>
Total Shipments	410,027,059	105,331,214	11,339,846
Dutiable trade (MFN tariff >0)	80,945,029	80,945,029	2,355,899
Share of trade in duty-free lines	80%	23%	79%
Trade using preferences	534,783	534,783	115,266
Share of eligible trade receiving full (80%) preferences	1%	1%	5%
Share of total trade using preferences	0.1%	0.5%	1.0%
Potential value of preferences	10,909,206	10,909,206	313,444
Value of preferences received (MFN duties foregone)	133,696	133,696	163,485
Preference utilization rate	1%	1%	52%
Potential preferential margin on dutiable trade	13%	13%	13%
Realized margin on trade eligible for preferences	0.2%	0.2%	6.9%
Value of preference received as a share of total shipments	0.03%	0.1%	1.4%
Exchange rate: Ugandan shilling per dinar	7.3	7.3	7.0

*Source:* DTIS team calculations using import and customs data from URA. Exchange rate data from IMF IFS.

Note: Several products imported in 2004 received 30–40 percent reductions from MFN duties rather than the 80 percent reduction that Uganda agreed to give to COMESA FTA participants.

**Table A-3. Utilization of COMESA Preferences in Ethiopia, 2005**

<b>Trade and Duty Values (in Ethiopian bir)</b>	<b>2005</b>	<b>excluding gasoline</b>
Total Shipments	399,095,803	53,245,569
Dutiable trade (MFN tariff >0)	53,245,569	53,245,569
Share of trade in duty-free lines	87%	0%
Trade using preferences	51,874,640	51,874,640
Share of eligible trade receiving preferences	97%	97%
Share of total trade using preferences	13%	97%
Potential value of preferences	3,473,878	3,473,878
Value of preferences received (MFN duties foregone)	3,298,186	3,298,186
Preference utilization rate	95%	95%
Potential preferential margin on dutiable trade	6.7%	6.7%
Realized margin on trade eligible for preferences	6.4%	6.4%
Value of preference received as a share of total shipments	0.8%	6.2%
Exchange rate: Sudanese dinars per Ethiopian bir	28.1	

*Source:* DTIS team calculations using import and customs data from the Ethiopian government. Exchange rate data from IMF International Finance Statistics.

**Table A-4. Utilization of European Preferences, 2002–2005**

<b>Imports and duties (in Euros)</b>	<b>Agriculture</b>	<b>Agr. excl. Sugar</b>	<b>Manufacturing</b>	<b>Total Trade</b>
Total shipments	99,299,217	90,602,103	64,426,826	163,733,613
Dutiable trade (MFN tariff >0)	15,821,898	7,124,785	1,651,048	17,472,946
Share of trade in duty-free lines	84%	92%	97%	89%
Trade eligible for preferences	15,820,045	7,124,785	1,651,048	17,471,093
Trade receiving preferences	11,800,539	5,998,579	203,293	12,003,832
Share of eligible trade receiving preferences	75%	84%	12%	69%
Share of total trade using preferences	12%	7%	0.3%	7%
Potential value of preferences	6,422,475	588,240	49,081	6,471,556
Value of preferences actually received	4,401,807	523,817	5,321	4,407,128
Preference utilization rate	69%	89%	11%	68%
Potential preferential margin	41%	8%	3%	37%
Realized preference margin	28%	7%	0.3%	25%
Preferences as share of total shipments	4%	0.6%	0.01%	3%
Exchange rate: 1 Euro = 212 dinars on average over 2003–2005				

*Source:* EUROSTAT database.

Note: Trade and duty information averaged over the three years. Agriculture is defined as products in HS chapters 1–24.

**Table A-5. Chinese Preferences, 2005–2006**

<b>Imports and potential duties (in dollars)</b>	<b>2006</b>	<b>2005</b>
Total shipments	1,943,481,721	2,614,461,953
<i>of which oil</i>	1,872,079,062	2,574,490,408
Dutiable trade (MFN tariff >0)	65,146,079	35,211,901
Share of trade in duty-free lines	97%	99%
Share of non-oil trade in duty-free lines	9%	12%
Trade potentially eligible for preferences	56,583,357	21,128,459
Share of dutiable trade	87%	60%
Potential value of preferences (MFN duties forgone)	2,872,924	1,113,779
Preferential margin (on eligible trade)	5%	5%
Weighted average MFN tariff on non-oil imports	7%	12%

*Source:* DTIS team calculations using trade data from UN Comtrade and 2005 tariffs from UNCTAD Trains databases.

## APPENDIX B: MARKET DATA ON COTTON, SHEEP, AND SESAME

**Table B-1. Major Cotton Importers and Exporters, 2005**

Importer	Total Imports	Australia	Burkina Faso	Benin	Brazil	Egypt	Greece	India	Sudan	United States	Uzbekistan
China	\$3,246.2	8%	5%	4%	2%	0.8%	0.3%	5%	<b>0.4%</b>	45%	12%
Turkey	\$911.1			0.1%	1%	2%	19%	0.3%	<b>0.003%</b>	61%	1%
European Union*	\$728.2	2%	1%	1%	7%	6%	(*)	1%	<b>1%</b>	10%	10%
Thailand	\$621.3	17%	4%	2%	4%	2%	0.2%	3%	<b>1%</b>	35%	0.5%
Indonesia	\$580.6	21%	1%	1%	9%	0.4%	0.3%	2%	<b>0.2%</b>	39%	2%
Pakistan	\$482.7	3%	0.2%	0.2%	15%	11%	2%	5%	<b>2%</b>	36%	0.6%
Mexico	\$467.3					0.3%	0.03%			100%	
Korea, Rep.	\$360.6	24%	1%		8%	2%	5%	1%		48%	5%
Taiwan, China	\$325.7	3%	6%	1%	7%	0.1%	0.1%	6%	<b>0.5%</b>	43%	2%
Russian Fed.	\$277.6				0.2%						34%
Japan	\$241.8	21%			16%	4%	3%	5%	<b>0.5%</b>	36%	0.5%
India	\$159.6	1%	0.2%	0.1%	0.9%	34%	0.3%		<b>8%</b>	28%	2%
Hong Kong	\$108.7	5%		0.02%	4%			8%		56%	
Malaysia	\$82.8	11%		1%	1%	0.05%		3%		11%	
South Africa	\$68.2					0.00001%		0.04%		0.2%	
Peru	\$65.0		2%		16%	0.1%				75%	
Canada	\$64.5							0.2%		93%	
Egypt, Arab Rep.	\$53.9						68%	0.0004%	<b>13%</b>		
Share of world market		7%	2%	2%	4%	3%	4%	3%	<b>0.7%</b>	41%	7%

*Source:* Importer data reported to UN Comtrade

*Note:* Values are millions of U.S. dollars; European Union imports are only those from outside the European Union. Greece supplies 5 percent of all cotton imported by EU member countries.

**Table B-2. Market Shares of Leading Sheep Exporters in Major Import Markets, 2005**

Importer	Imports	Australia	Hungary	Iran	Jordan	Netherlands	Romania	Spain	Sudan	Syria	U.S.	Uruguay
Saudi Arabia	\$589.0	14%			3%		0.2%		<b>17%</b>	56%		3%
Italy	\$126.3		50%			0.3%	21%	7%				
Qatar	\$46.0	24%		6%	3%					54%	0.02%	
France	\$39.4					58%	3%	19%				
Greece	\$34.1		24%			0.01%	61%	9%				
U.A.E.	\$32.8	29%		4%								
Spain	\$31.7					0.4%	3%	n/a				
Jordan	\$30.3	59%			n/a		2%			24%		0.9%
Oman	\$28.2	86%										
Bulgaria	\$17.6						98%					
Mexico	\$8.8	1%									80%	
China	\$1.9	100%										
Exporter's share of world market		15%	7%	1%*	2%	3%	8%	2%	<b>10%</b>	35%	1%	2%

Source: Data reported by importing countries to UN Comtrade.

Notes: Iran's reports considerably greater exports than suggested by this table. It reports exporting \$21 million in live sheep to the U.A.E. in 2005, while the U.A.E. reports importing only \$1.5 million. Iran also reports exporting even larger amounts of sheep to Kuwait, which has not reported trade data to UN Comtrade since 2001.



**Table B-3. Market Share held by Major Sesame Exporting Countries, 2005**

<b>Importing Countries</b>	<b>Im-ports</b>	<b>China</b>	<b>Ethiopia</b>	<b>Guatemala</b>	<b>India</b>	<b>Mexico</b>	<b>Nigeria</b>	<b>Paraguay</b>	<b>Sudan</b>	<b>Tanzania</b>	<b>Venezuela</b>
Japan	\$153.7	16	1	8	0.3	2	19	11	<b>2</b>	10	
China	\$124.9	n/a	54	0.1	7	0	1	1	<b>16</b>	11	0.3
EU	\$107.9	1	10	9	52	2	2	5	<b>6</b>	0.1	2
Turkey	\$64.3		41	0.1	12	0.3	7	0.5	<b>7</b>	1	
United States	\$52.9	1	1	24	29	16		1			22
Korea	\$52.6	59	6	0.1	18	0		1	<b>10</b>	0.2	
Syria	\$31.3				1		54		<b>34</b>		
Israel	\$30.6	1	70	0.3	16		0				
Saudi Arabia	\$24.5	0.04	33	0.04	14		0		<b>52</b>	0.04	0.1
Taiwan, China	\$21.7	0.04	0.2		51	1		0		0.4	
Mexico	\$18.3	0.01	1	10	33			1			47
Jordan	\$13.6		67	1	3				<b>20</b>		0.2
Egypt	\$10.1		16		15		2		<b>58</b>		
Exporter's share of world imports		7%	19%	5%	19%	2%	7%	3%	<b>10%</b>	4%	3%

*Source:* UN Comtrade, data reported by importers for 2005.

Notes: : Values are millions of U.S. dollars; European Union imports are only those from outside the European Union.

## APPENDIX C: POLICY MATRIX FOR AGRICULTURE

Table C-1. Policy Matrix for Agriculture

Objectives (in order of priority)	Constraints	Suggested Actions	Expected Final Outcomes/Results	Agencies/Organizations Responsible for Actions
<b>A. Central and State Government Policies</b>				
<p><b>Improve Production and Marketing Technology</b></p> <ul style="list-style-type: none"> <li>- <i>Improve agricultural and pastoral productivity</i></li> </ul> <p><b>Specific Objectives for Crops and Livestock</b></p> <ul style="list-style-type: none"> <li>- Sesame – improve the quality and regularity of supply for export markets</li> </ul>	<ul style="list-style-type: none"> <li>• <i>The productivity of Sudanese agricultural and pastoral production is typically less than 35 percent of productivity achieved in on-farm trials</i></li> <li>• <i>Percent of agricultural GDP spent on agricultural research in 2002 was 0.17% compared with about 0.84 %as average for African countries</i></li> <li>• <i>Inadequately trained or motivated extension staff in state ministries of agriculture throughout Sudan</i></li> <li>• Sesame yields are about 35% on-farm research potential, and production is highly variable</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Double percent of agricultural GDP spent on research to0.35% over 5 years</i></li> <li>• <i>Improve the quality of staff in the agricultural extension system through training and motivation</i></li> <li>• Disseminate technology for increasing sesame yields in major semi-</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Doubled annual government budget allocations to agricultural and livestock research by 2010</i></li> <li>• <i>Achieve at least an average 20 percent increase in yields of export crops within 5 years through a combination of improved technology, inputs provision and more efficient production techniques</i></li> <li>• Increase value of sesame exports by 25 percent above 2006 level in 5 years</li> </ul>	<ul style="list-style-type: none"> <li>• <i>Ministry of Science and Technology, Agricultural Research Corporation, Livestock and Fisheries Research Corporation</i></li> <li>• Agricultural Research Corporation and National Farmers' Union</li> </ul>

<b>Objectives (in order of priority)</b>	<b>Constraints</b>	<b>Suggested Actions</b>	<b>Expected Final Outcomes/Results</b>	<b>Agencies/Organizations Responsible for Actions</b>
<ul style="list-style-type: none"> <li>- Sorghum – improve yields and the regularity of supply for export markets</li> <li>- Improve knowledge of markets and packaging requirements for Sudan’s exports</li> </ul>	<ul style="list-style-type: none"> <li>• Sorghum yields are 40% of on-farm research potential, and production is highly variable</li> <li>• Limited knowledge of potential export markets, the requirements of those markets, and the most appropriate packaging is weak</li> </ul>	<p>mechanized farming areas</p> <ul style="list-style-type: none"> <li>• Disseminate technology for increasing sorghum yields in major semi-mechanized farming areas</li> <li>• Establish training programs in marketing research, market logistics, and packaging for major agricultural products at trade schools and universities</li> </ul>	<ul style="list-style-type: none"> <li>• Increase value of sorghum exports by 20 percent above 2006 level in 5 years</li> <li>• Ongoing specialized training programs and information provision in agricultural marketing</li> <li>• Public data base on volumes and prices for Sudan’s major exports to various countries, and information on projected trade requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural Research Corporation and National Farmers’ Union</li> <li>• Trade organizations, Ministry of Foreign Trade and Ministry of Agriculture</li> </ul>
<p><b>Continued Decontrol of Markets</b></p> <ul style="list-style-type: none"> <li>- <i>Decontrol of export trade in raw gum Arabic.</i></li> <li>- <i>Recovery of Sudan’s world market share in gum Arabic trade</i></li> <li>- <i>Reduce taxes and</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Sudan’s share of the world gum Arabic market has declined from about 65 percent five years ago to about 35 percent at present</i></li> <li>• <i>With the exception of a few years in the 1990s the Gum Arabic Company has had an exclusive concession to export gum Arabic which typically kept prices to producers at or less than 15 percent of fob prices.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Withdraw the single concession to the Gum Arabic Company within 18 months consistent with the MDTF-National Gum Arabic project</i></li> <li>• <i>Review federal and state taxation and charges on gum Arabic marketing to ensure that they are in return for services provided to producers and traders</i></li> <li>• <i>Support the expansion</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Increase of Sudan’s share in world gum arabic market to 50 percent</i></li> <li>• <i>Increased proportion of fob prices received by producers.</i></li> <li>• <i>Major increase in gum Arabic trees planted.</i></li> </ul>	<ul style="list-style-type: none"> <li>• <i>Ministry of Foreign Trade, National Farmers’ Union, gum Arabic producers</i></li> <li><i>National Forestry Corporation, State Governments, Farmers’ Union, gum Arabic producers</i></li> </ul>

<b>Objectives (in order of priority)</b>	<b>Constraints</b>	<b>Suggested Actions</b>	<b>Expected Final Out-comes/Results</b>	<b>Agencies/Organizations Responsible for Actions</b>
<p><i>charges levied on the marketing of agricultural products</i></p>	<ul style="list-style-type: none"> <li><i>Taxes and fees in the marketing chain are typically 25 percent of total marketing costs for crops such as sesame and even higher for gum Arabic.</i></li> </ul>	<p><i>of domestic production and processing of gum Arabic</i></p>	<ul style="list-style-type: none"> <li><i>Achieve a reduction of at least 50 percent in the absolute costs of the taxes and charges in the marketing of agricultural products</i></li> </ul>	<ul style="list-style-type: none"> <li><i>Central and State Ministries of Finance and locality governments</i></li> </ul>

a/ Main priorities are in bold italics.

## APPENDIX D: CUSTOMS AND SPS

**Table D-1. Sudan Customs—Summary of Recommendations and TA requirements**

Subject	Recommendation	Resp. agency	TA required
Legislation	Table the new customs law in parliament; ratify the revised WCO Kyoto convention as soon as possible.	GoNU/ CGA	None
Customs operations	Improve efficiency by streamlining processes and eliminating unnecessary steps and forms: eliminate the face vet stage and the customs form 1; remove any verification and checking steps after assessment; and consider eliminating bank forms.	CGA	None
	Develop and provide training for supervisors and inspectors in inspection techniques.	CGA	Experts
	Once proper risk management has been introduced and post release audit matures, introduce a modernized warehouse control and supervision framework	CGA	None
	In longer term, eliminate the use of internal customs checkpoints and replace them with more reliable and effective measures based on automation and other modern technologies.	CGA	None
	In the longer term, develop the capability for direct trader input from point of embarkation. In the short term, when ASYCUDA ++ is fully operational, investigate whether some of the shipping companies who already provide consignment information in Port Sudan could be encouraged to do so for Through Bills of Lading (TBL) for inward traffic to CGA Customs.	CGA, traders	tbd
	Formalize and regularize CGA consultation processes to foster open communication and constructive partnerships with stakeholders.	CGA	None
Single window	CGA should take the lead in Sudan for discussions related to the single window concept.	CGA /others	Experts
Risk mgt	Develop a risk management policy statement for customs.	CGA	Experts
	Develop risk profiles and introduce the selectivity mod-	CGA	Experts

<b>Subject</b>	<b>Recommendation</b>	<b>Resp. agency</b>	<b>TA required</b>
	ule for ASYCUDA ++, and reduce physical inspections significantly.		
	Consider removing or lessening the requirement for in transit bonds for clients meeting acceptable risk-management criteria.	CGA	None
	Develop an effective post-release verification and audit capability, by acquiring staff with the right set of academic qualifications and experience and by securing necessary training.	CGA	Experts
Time release study	Undertake a World Customs Organization time release study to provide diagnostic information on processing and clearance bottlenecks and clearance times.	CGA/WCO/ot hers	Experts
Valuation	Undertake a major review of valuation activities to prepare for GATT valuation: develop and implement a comprehensive training program; strengthen the headquarters valuation function; begin the process of developing reference price data for use by the field; increase transparency by allowing importers to query and discuss valuation changes made by customs before they are finalized; develop data to analyze trends in valuation.	CGA	Policy and training experts
GoSS	Ensure the CGA has full support from the GoNU, and from GoSS and its consultants, to establish full customs operations in the south.	GoNU/GoSS/ USAID	Experts
	Determine technical assistance requirements in the areas of training, infrastructure, and communications, and solicit necessary donor support.	CGA	tbd
Reform	Implement a formal customs reform strategy with the following features: a formal reform project with a clear, achievable mandate, agreed objectives, and realistic time-frames; a clearly articulated vision with a modern project management framework, including a project steering committee, dedicated work teams, and close monitoring by senior management; a comprehensive human resources and training strategy; appropriate resources and technical assistance; a detailed schedule of initiatives including planned responses to recommendations made by international organizations – IMF, UNCTAD, FIAS, World Bank.	GoNU and CGA	Project mgt and project support, and experts

**Table D-2. SPS Standards for Selected Export Products**

Product Group	Standards, Regulations or Private Protocols Related to:				
	Food Safety	Animal/Plant Health	Quality or Technical Attributes	Environment	Social
<b>Fresh Fruits and Vegetables</b>	Pesticide residue limits	Plant material quarantine	Quality grades	Pesticide use restrictions	Monitoring of child labor
	Microbiological Standards	Pest risk analysis	General labeling requirements	Water/soil contamination requirements	
<b>Fresh Fruits and Vegetables</b>	Traceability requirements	Fumigation requirements	Packaging standards	Codes for organic practices/certification	Occupational health standards
	Hygiene requirements	Phyosanitary certificate			
<b>Live Animals and Meat Products</b>		Disease Free areas			
		Disease surveillance	Quality grades	Codes for organic practices and certification	
<b>Live Animals and Meat Products</b>	Vet. Drug residue limits	Restrictions on vet. drugs	Labeling requirements	Regulations on animal waste effluent	Animal welfare monitoring
	Microbiological standard	Animal traceability	Packaging standards	Water effluent regulations	
<b>Hides and Skins</b>		Animal health status for raw hides/skins	Quality attributes	Chemical use restrictions	
			Quality grades		
<b>Fish and Fish Products</b>			Labeling requirements		
	Microbiological and foreign matter standards	Restrictions on antibiotic use in aquaculture	Packaging standards		
<b>Fish and Fish Products</b>	Pesticides residue limits	Animal health certification	Quality management certification	Fish catch restrictions	Environmental management certification
	HACCP checks		Quality grades		
<b>Honey</b>			General labeling requirements	Codes for organic practices and certification	
	Pesticide plus antibiotic residue limits	Pesticide and antibiotic surveillance	Packaging standards	Antibiotic use restrictions	
<b>Honey</b>	Microbiological standards	Antibiotic use restrictions	GMP conformation		
	Hygiene requirements	Export certification	Quality grades		
<b>Cereals, Oilseeds and Animal Feed</b>			GMO labeling		
			Restrictions on animal feed ingredients	Biosafety/GMO regulations	
<b>Cereals, Oilseeds and Animal Feed</b>	Microbiological standards	Fumigation requirements	Product content and nutritional labels	Codes for organic practices and certification	
	Limits on pesticides residues plus mycotoxins	Quarantine requirements			

<b>Product Group</b>	<b>Standards, Regulations or Private Protocols Related to:</b>				
	<b>Food Safety</b>	<b>Animal/Plant Health</b>	<b>Quality or Technical Attributes</b>	<b>Environment</b>	<b>Social</b>
<b>Cotton</b>	Pesticide residue limits in cotton seed oil	GMO variety approval	Quality attributes	Codes for organic practices Restrictions on pesticides use	Occupational health standards
<b>Coffee and tea</b>	Microbiological standards Pesticide residue limits	Fumigation requirements	Quality Attributes Packaging standards Quality grades Consumer pack labeling requirements	Codes for organic practices and certification Codes to limit biodiversity code	Monitoring of child labor Fair Trade Provisions
<b>Spices</b>	Limits on pesticides residues plus mycotoxins Microbiological standards	Fumigation requirements or restrictions Plant material quarantine Phytosanitary certification Pest risk analysis needs	Packaging standards Quality attributes	Codes for organic practices and certification Pesticide use restrictions	Monitoring of child labor, Occupational health standards
<b>Cut flowers</b>		Fumigation requirement	Packaging standards	Regulations on water/soil contamination	Fair Trade Provisions

Source: DTIS team.



**Table D-3. SPS Action Matrix**

**GOAL: Internationally Recognized SPS Program that Increases Sudan Agricultural Trade**

**Result 1. An Action Plan that Strengthens the SPS Program**

Activity #	Requirements	Who	Priority	Time Horizon	Resource	What	Indicator of Success	Means of Measurement
1.1.	Stakeholders in the Public and Private Sectors	SSMO MARF MAF	High	1st year	SPS consultant Workshop travel Communication	Consultant will work with all parties to have SPS Action Plan	Action Plan adopted by key GOS and GoSS government agencies	Action Plan is published and adopted by SSMO, MARF and MAF

**Result 2. Institutions Responsible for SPS Strengthened**

Activity #	Requirements	Who	Priority	Time Horizon	Resource	What	Indicator of Success	Means of Measurement
2.1.	SSMO and others identify overlapping responsibilities	SSMO, MARF, MoFT Customs	High	1st year	Local Consultant	Identify all redundancies in laws, regulations and who is responsible	List of steps to streamline responsibilities and time frame for implementation	Publish a guide for reduction of responsibilities
2.2.	Based on 2.1. train or retrain key departmental staff to carry out regulations	SSMO will take the lead in organizing training modules	High	1st year	training program Modules Workshops	Local consultant Workshops will be in both North and South	International acceptance of the revisions for certification	Contact external entities in their acceptance of the streamlining
2.3.	GOS and GoSS support the strengthening of Focal Points and "One Stop Shop"	Horticulture and HEC will be initial target	Medium	2nd year	Local Consultant and department staff	workshops networking of Focal Points for Sharing SPS information	Linkages of Focal Points Establishment of fast track certification at HEC	Test the flow of information to Focal Points Observe the HEC operations
2.4.	Improve the staff capacity of MoFT to undertake SPS bilateral negotiations	MoFT UNCTAD	Low	2nd-3rd years	Seminars Travel to Neighboring Countries	Trade negotiation skills in SPS negotiations in key markets	Improved access for livestock, meat, hides, skins, horticulture and fish products	Access of key products to GCC and EU countries

**Result 3. The system for inspection, testing and reporting of Sudanese products recognized by key importing countries**

Activity #	Requirements	Who	Priority	Time Horizon	Resource	What	Indicator of Success	Means of Measurement
3.1.	Assess the inspection services	SSMO MARF MAR	High	1st year	consultant travel allowance workshop	Visit all the inspection points and assess collection of samples	Streamline the inspection of products for export	Report submitted to SSMO Actions taken
3.2.	Visit to all laboratories and make audit	SSMO Central Lab CVL, others	High	1st year	International Consultant travel allowance	Visit all laboratory and assess equipment and protocols to international requirements	Plan for key labs	Equipment is purchased
3.3.	Increase the capacity to do risk assessment and reporting Assess emergency response to outbreak	SSMO MARF MAR GOS, GoSS	High	1st year	AU/IBAR and consultant Computers and software	Work with PACE and AU/IBAR to assess how to do risk management assessment and emergency response	A risk management program is established with periodic reports to OIE	Timely reports
3.4.	Source trace-back system is evaluated for horticulture industry	MAF HEC	Medium	2nd year	Local consultant workshop	Design a protocol for HEC for source verification	Trace back system is initiated	Importers recognize the validity of the verification system
3.5.	Feasibility for Domestic 3rd Party Certification Organization	Private Sector Company	Low	3rd year	International Donor Agency	Feasibility study conducted with funding from EU country	Based on feasibility study	Feasibility Study Funded

**Result 4. The Capacity of the Private Sector to Implement SPS Improved**

Activity #	Requirements	Who	Priority	Time Horizon	Resource	What	Indicator of Success	Means of Measurement
4.1.	Awareness building on regulations and compliance	SSMO	High	1st year	Newspaper Workshops	SSMO have a plan for awareness in both the public and private sectors in North and South Sudan	Improved compliance by exporters in meeting standards	Decline in number of product rejections or Improvement in quality of products exported
4.2.	Adoption of Good Management Practices	SSMO MAF, MARF HEC	High	1st year	International Consultant Workshops	Training in GMP and HACCP for slaughterhouses, Tanneries, packing sheds and cold rooms	Introduction of GMP along the value chain for livestock, fruits, vegetables, and fish	Survey of private sector companies on compliance to GMPs or HACCP
4.2.	Cost Recovery for SPS inspection, testing and certification	SSMO MAF MARF	Low	3rd year	Local technical specialist Stakeholder Seminars	Assess the fees for delivery of services in the inspection, testing, reporting and certification for exports	Fee structure is balanced between the public and private sectors	Published fee schedule by the relevant authorities

## **APPENDIX E: VALUE CHAINS FOR SELECTED AGRICULTURAL EXPORTS**

This annex contains value chain analyses for select crop and livestock marketing. The information was collected by the DTIS team during their field missions in 2006 and early 2007. The data generally reflect conditions in 2006, thus prices are reported in Sudanese dinar (SD).

Value chains are presented for:

- Cattle Marketing from Nyala to Omdurman
- Sheep Marketing from Kordofan to Port Sudan
- Sheep Marketing from Nyala to Port Sudan
- Lamb Processing and Export by Air to Jeddah
- Sesame Marketing from Sennar and El Obeid to Port Sudan
- Groundnut Marketing from El Obeid to Port Sudan
- Gum Arabic Marketing from El Obeid to Port Sudan
- Gum Arabic Marketing from Demazine to Port Sudan
- Gum Arabic Marketing from Um Ruwaba to Port Sudan
- Cotton Marketing from Gezira Scheme to Port Sudan

• **Table E-1. Value Chain for Cattle Marketing from Nyala to Omdurman**

(September/ November, 2006)			
	SD/head	<u>Percent of Total</u>	
		All Costs	Sales, Locality, Inspection Taxes
Sale at Nyala (5-7 years old)	60,000		
Sales tax	1,200	5.3	5.3
Vaccinations and Veterinary inspection	250	1.1	
Zakat (10 percent)	6,000	26.4	
Locality tax	1,200	5.3	5.3
<b>South Kordofan</b>			
Locality tax	1,200	5.3	5.3
Veterinary certificate inspection	500	2.2	2.2
Rangeland use	250	1.1	
<b>North Kordofan</b>			
Locality tax	1,200	5.3	5.3
Rangeland use	250	1.1	
<b>Droving costs (50 cattle)</b>			
Two for at least 90 days (SD/day)	3,600	15.8	
<b>Watering Costs and Hay</b>			
45 waterings at SD 50/head/watering	2,250	9.9	
45 feedings at SD100/head/feeding	4,500	19.8	
<b>Omdurman</b>			
Sale yard fee	300	1.3	
Student support fee	50	0.2	0.2
Wounded support	10	0.1	0.1
Other fees?			
<b>Total</b>	<b>22,760</b>	<b>100.1</b>	<b>23.7</b>
<b>Sale price (Omdurman)</b>	<b>80,000</b>		

Note: Based on a herd of 50 cattle travelling along stock routes.  
Source: Interviews by DTIS team at Omdurman livestock market.

**Table E-2. Value Chain for Sheep Marketing from Kordofan to Port Sudan (2004/2005)**

	<b>SD per head</b>	<b>Percent of Export Price</b>	<b>Percent of Marketing Cost</b>
<b>Purchase Price</b>	16,000	75.30	
<b>Costs</b>			
Transport (pastoralist to saleyard)	100	0.47	1.9
Cost of fodder (week)	120	0.56	2.3
Veterinary fees	150	0.71	2.8
Quarantine costs	500	2.35	9.4
Certificate of origin	500	2.35	9.4
Transport to port	1,000	4.70	18.8
Port entry fees	50	0.05	0.9
Shipping fees	800	3.76	15.0
Truck supervisor	250	1.67	4.7
State fees	250	1.67	4.7
Port Sudan workers' fees	200	0.94	3.8
Veterinary services	200	0.94	3.8
Custom and port fees	400	1.88	7.5
Quality Control/Health certificate	500	2.35	9.4
Other	300	1.42	5.6
<b>Total Costs</b>	<b>5,320</b>	<b>25.16</b>	<b>100</b>
<b>Price (fob) Port Sudan<sup>a/</sup></b>	<b>21,250</b>		

*Source:* Based on data from livestock trading companies in El Obeid exporting sheep – using road transport.

a/ Estimated by DTIS team based on aggregate export data from Central Bank of Sudan.

**Table E-3. Value Chain for Sheep Marketing from Nyala to Port Sudan**

Item	Cost (SD/head)	Percent of Export Price	Percent of Mktg. Costs
Cost of Sheep in Nyala	10,000	67.7	
Locality purchase registration fees	300	2.00	14.61
Locality grazing fees	100	0.67	4.87
Vaccination fees	150	1.00	7.31
Quarantine fees (Animal Resources Ministry)	105	0.70	5.11
Veterinary staff fees (vaccination services)	30	0.20	1.46
Veterinary staff fees (shipping services)	30	0.20	1.46
Laboratory testing fees	40	0.27	1.95
Veterinary staff fees at laboratory	25	0.17	1.22
State stamp duty (Taxation department)	50	0.33	2.44
<b>Sub-total</b>	<b>830</b>	<b>5.53</b>	<b>40.43</b>
Locality duties/fees (assembly at Al Khoey/El Rahad)	50	0.33	2.44
Jihad tax	10	0.07	0.49
Pastoralist's union tax	10	0.07	0.49
Elshaheed (martyr) tax	20	0.13	0.97
Wounded tax	25	0.17	1.22
<b>Sub-total</b>	<b>115</b>	<b>0.77</b>	<b>5.60</b>
Loading labour fees	23	0.15	1.12
VAT for transportation	na		
Transport to Port Sudan	na		
Custom taxes	300	2.00	14.61
Port fees per head	150	1.00	7.31
Inspectn. fees at Port Sudan Vet. clinic/quarantine	30	0.20	1.46
Service fees at veterinary clinic/quarantine	10	0.07	0.49
Environment regeneration fees at Port Sudan	100	0.67	4.87
Ship fees	25	0.17	1.22
Customs clearance fees (administrative)	20	0.13	0.97
Tpt.cost per head to Port Sudan to Sawakin	200	1.33	9.74
Unloading and loading at Sawakin	100	0.67	4.87
Fodder+Labour+water (for one day)	150	1.00	7.31
<b>Sub-total</b>	<b>1108</b>	<b>7.39</b>	<b>53.97</b>
<b>Total</b>	<b>2053</b>	<b>13.69</b>	<b>100.00</b>
Price of Sheep (fob) Sawakin	15,000		

*Source:* Animal Resources Services Company, Khartoum.

na = not available at time of writing.

Note: Sheep for export are transported from Nyala to Port Sudan for veterinary inspection. They are then transported to Sawakin and loaded on ships. Transport costs from Nyala to Port Sudan are not included in this table due to lack of reliable information.

**Table E-4. Value Chain for Lamb Processing and Export by Air to Jeddah**

(November 2005)

<b>Item</b>	<b>SD/ton</b>	<b>Percent of Total</b>
Purchase price of sheep (not clear)	216,000	
<b>Costs</b>		
Quarantine fees	9,275	10.0
Preparation at slaughterhouse	7,086	7.6
Slaughter fees	16,051	17.3
Slaughter labor	6,300	6.8
Veterinary clinic workers	na	na
Transport	5,990	6.4
Slaughter certificate	16,000	17.2
Airport entry fee	5,000	5.4
Customs	15,000	16.1
Export form fees	5,000	5.4
Origin certificate	2,500	2.7
Labelling	2,750	3.0
Other	2,000	2.2
<b>Sub-Total</b>	<b>92,952</b>	<b>100.0</b>
Waste	<b>93,255</b>	
<b>Total</b>	<b>185,237</b>	
<b>Sale price in Jeddah</b>	<b>\$3,800/ton</b>	
<b>Sale price in Jeddah</b>	<b>SD855,000/ton</b>	

Note: Cost of air freight to Jeddah not included.  
*Source:* Trading companies exporting meat, through Animal Resources Service Company and Planning and Research Administration in Ministry of Animal Resources and Fisheries.



**Table E-5. Value Chains for Sesame Marketing from Sennar and El Obeid to Port Sudan**

Commodity Origin	Sesame - Sennar			Sesame - El Obeid		
	Cost (SD/ton)	Percent of Export Price (Dec/Jan 05)	Percent of Mktg. Costs	Cost (SD/ton)	Percent of Export Price (Dec/Jan 05)	Percent of Mktg. Costs
Buying price	96,677	54.83		84,029	47.66	
Handling	1,917	1.09	3.70	1,178	0.67	2.50
Local taxes	928	0.53	1.79	2,174	1.23	4.62
Local fees	1,316	0.75	2.54	1,687	0.96	3.59
Other						
Storage				20	0.01	0.04
Tpt to Sennar/El Obeid	3,185	1.81	6.15	2,612	1.48	5.55
Interest				1,910	1.08	4.06
Net Margin	-4,193	-2.38		3,462	1.96	
Selling Margin	99,828	56.62		97,073	55.06	
Exporter Cost Margin						
Buying Price	99,828	56.62		97,073	55.06	
Handling	1,181	0.67	2.28	913	0.52	1.94
Storage	378	0.21	0.73	278	0.16	0.59
Transport	6,573	3.73	12.69	1,439	0.82	3.06
Local Taxes	2,782	1.58	5.37			
Local Fees	1,484	0.84	2.87			
Other						
Decortication						
Picking (selection)						
Sack and String	1,300	0.74	2.51	1,300	0.74	2.76
Sale of sack						
Handling (HPS)						
Sale of shells						
Tpt to state and loading	1,113	0.63	2.15			
Tpt to Port Sudan	6,250	3.54	12.07	10,138	5.75	21.55
Handling at Port Sudan	516	0.29	1.00	516	0.29	1.10
Taxes	5,000	2.84	9.65	5,000	2.84	10.63
Customs	1,936	1.10	3.74	1,936	1.10	4.12
Storage	179	0.10	0.35	179	0.10	0.38
Port fees						
Buying Price						
Port Sudan expenses	15,759	8.94	30.42	15,759	8.94	33.50
Net Margin	-36,304	-20.59		41,785	23.70	
Selling Price	176,318			17,6318	100	
Export Price (\$/ton-fob)	767			766.6		
Total Marketing Costs	51,797		100.00	47,039		100

Source: Directorate of Planning and Agricultural Economics, Ministry of Agriculture and Forests.

**Table E-6. Value Chains for Groundnut Marketing from El Obeid to Port Sudan**

Commodity/Origin	Groundnuts - El Obeid			
	Activities	Cost (SD/ton) HPS	Percent of Export Price (Dec/Jan 05)	Percent of Total Mktg. Costs
Date				
Buying price	68,617	47.61		
Handling	6,306	4.38		15.56
Local taxes	1,542	1.07		3.81
Local fees	2,104	1.46		5.19
Other				
Storage				
Tpt to	3,962	2.75		9.78
Interest				
Net Margin	4,323	3.00		
Selling Margin	85,312	59.19		
Exporter Cost Margin				
Buying Price	85,312	59.19		
Handling	7,819	5.43		19.30
Storage	106	0.07		0.26
Transport	2,283	1.58		5.63
Local Taxes	1,664	1.15		4.11
Local Fees	2,261	1.57		5.58
Other				0.00
Decortication	3,182	2.21		7.85
Picking (selection)	2,263	1.57		5.59
Sack and String				0.00
Sale of sack	-2,250	-1.56		-5.55
Handling (HPS)	1,018	0.71		2.51
Sale of shells	-750	-0.52		-1.85
Tpt to state and loading				
Tpt to Port Sudan	10,138	7.03		25.02
Handling at Port Sudan	516	0.36		1.27
Taxes	5,000	3.47		12.34
Customs	1,936	1.34		4.78
Storage				0.00
Port fees	2,200	1.53		5.43
Buying Price				
Port Sudan expenses	12,811	8.89		31.62
Net Margin	-12,541	-8.70		
Selling Price	144,126	100.00		
Export Price (\$/ton-fob)	627			
Total Marketing Costs	64,111			158.23

Source: Directorate of Planning and Agricultural Economics,, Ministry of Agriculture and Forests.

**Table E-7. Value Chain for Gum Arabic Marketing from El Obeid to Port Sudan**

(based on information from gum arabic traders in El Obeid, November 2006, when prices to producers had increased substantially above historical levels)

		<b>SD/ton</b>	<b>Percent of Total Mktg. Cost</b>
<b>Market price (El Obeid)</b>	SD 7,500/kantar	187,500	
<b>Taxes</b>			
	Zakat (10 % of gross)	18,750	22.0
	Wounded soldiers (1% of gross)	1,875	2.2
	Natl Forest Corp (5% of gross)	9,375	11.0
	Central Govt. fee(5% of gross)	9,375	11.0
<b>Sub- total</b>		<b>39,375</b>	<b>46.3</b>
<b>Transport Charges</b>			
	Facilitation and customs (informal)	222	0.3
	Aggregate toll charges	1,000	1.2
	Truck freight costs (El Obeid to Port Sudan)	60	0.1
<b>Charges at Port Sudan`</b>			
	SSMO Inspection	270	0.3
	Marketing Service	620	0.7
	Handling and fob charges	1,000	1.2
	Customs (1% of fob)	1,900	2.2
	Sea port charges	950	1.1
	Port charges	350	0.4
<b>Total</b>		<b>85,122</b>	<b>100</b>

*Source:* Salih Alajab, November, 2006.

Note: For Acacia Senegal (hashab).

**Table E-8. Value Chain for Gum Arabic Marketing from Damazine to Port Sudan**

(based on information in Damazine, Blue Nile at end-June 2006 when prices to producers had increased substantially above historical levels)

	Feb-06		May-06	
	per kantar	per ton	per kantar	per ton
Price received by producers from village trader	20,000	2020	18,000	1739
Price received by village trader at Damazine	20,500	2071	18,500	1787
Costs at Damazine market (flat taxes per kantar)				
Locality tax	200	20	200	20
Zakat	1,600	162	1,600	162
Natl. Forest Corporation levy (50% NFC / 50% State)	1200	121	1200	121
Wounded soldiers levy	125	13	125	13
Gum Arabic Union levy	250	25	250	25
General Tax (GONU 60% and State 40%)	350	35	350	35
Crop Marketing tax (state)	250	25	250	25
<b>Sub-total</b>	<b>3975</b>	<b>402</b>	<b>3975</b>	<b>402</b>
Cleaning and Grading by Um Ruwaba trader				
Labor	500	51	500	48
Management etc	10	1	10	1
Buildings etc	100	10	100	10
Jute bags	100	10	100	10
<b>Sub-total</b>	<b>710</b>	<b>72</b>	<b>710</b>	<b>69</b>
Cost ex trader store (without profit) per Kantar purchased	25,185	2,544	23,185	2,258
Cost ex trader store (compensated for 25% weight loss)	33,580	3,392	30,913	3,010
Cost ex trader store assuming 25 percent profit	41,975	4,523	38,642	4,013
Transport from Damazine to GAC in Khartoum	400	40	300	29
<b>Total cost for trader (including profit) in Khartoum</b>	<b>42,375</b>	<b>4,563</b>	<b>38,942</b>	<b>4,042</b>
Transport from GAC in Khartoum to Port Sudan	724	73	724	70
Total cost for GAC landed in Port Sudan	43,099	4,636	39,666	4,112
Estimated handling costs for GAC (5% of value)	2155	232	1983	206
Total supply price of gum arabic in Port Sudan	45,254	4,868	41,649	4,318
<b>Estimated offer price by GAC assuming profit of 10%</b>	<b>49,779</b>	<b>5,355</b>	<b>45,814</b>	<b>4,750</b>
Assumed international price fob Port Sudan in 2006	36225	3,500	36225	3,500
Farmer price as a percent of fob price in Port Sudan	<b>55</b>	<b>58</b>	<b>50</b>	<b>50</b>
Assumed international price fob Port Sudan in 2006	41400	4,000	41400	4,000
Farmer price as a percent of fob price in Port Sudan	<b>48</b>	<b>51</b>	<b>43</b>	<b>43</b>

Source: Field survey - Thomas Couteaudier, December 2006.

**Table E-9. Value Chain for Gum Arabic Marketing from Um Ruwaba to Port Sudan**

(based on information in Um Gezira Village at end February, 2006 when prices to producers had increased substantially)

	Jan-06		Feb-06	
	per kantar	per ton	per kantar	per ton
Price received by producers from village trader	13,000	1256	17,000	1643
Price received by village trader at Um Rawaba market	13,500	1304	17,500	1691
Costs at Um Rawaba market (flat taxes per kantar)				
Locality tax	200	19	200	19
Zakat	1,300	126	1,300	126
Natl. Forest Corporation levy	600	58	600	58
Wounded soldiers levy	50	5	50	5
<b>Sub-total</b>	<b>2150</b>	<b>208</b>	<b>2150</b>	<b>208</b>
Cleaning and Grading by Um Ruwaba trader				
Labor	100	10	100	10
Management etc	10	1	10	1
Buildings etc	100	10	100	10
Jute bags	75	7	75	7
<b>Sub-total</b>	<b>285</b>	<b>28</b>	<b>285</b>	<b>28</b>
Cost ex trader store (without profit) per Kantar purchased	15,935	1,540	19,935	1,926
Cost ex trader store (compensated for 25% weight loss)	21,247	2,053	26,580	2,568
Cost ex trader store assuming 25 percent profit	26,558	2,737	33,225	3,424
Transport from Um Ruwaba to GAC in Khartoum	300	29	300	29
<b>Total cost for trader (including profit) in Khartoum</b>	<b>26,858</b>	<b>2,766</b>	<b>33,525</b>	<b>3,453</b>
Transport from GAC in Khartoum to Port Sudan	724	70	724	70
Total cost for GAC landed in Port Sudan	27,582	2,836	34,249	3,523
Estimated handling costs for GAC (5% of value)	1379	142	1712	176
Total supply price of gum arabic in Port Sudan	28,961	2,978	35,961	3,699
<b>Estimated offer price by GAC assuming profit of 10%</b>	<b>31,858</b>	<b>3,276</b>	<b>39,558</b>	<b>4,069</b>
Assumed international price fob Port Sudan in 2006	36225	3,500	36225	3,500
Farmer price as a percent of fob price in Port Sudan	<b>36</b>	<b>36</b>	<b>47</b>	<b>47</b>
Assumed international price fob Port Sudan in 2006	41400	4,000	41400	4,000
Farmer price as a percent of fob price in Port Sudan	<b>31</b>	<b>31</b>	<b>41</b>	<b>41</b>

*Source:* Field survey - Thomas Couteaudier and Jack van Holst Pellekaan, February, 2006.

**Table E-10. Value Chain for Cotton Marketing from Gezira Scheme to Port Sudan (2005/06)**

Items	Ginned Cotton	
	Barakat (SD/K)	Acala (SD/K)
<b>Payment for Seed Cotton (to farmer in field)</b>	20,000	16,000
<b>Revenue</b>		
Cotton seed	5,760	4,490
Scarto	540	-
Subsidy		4,860
<b>Net Cost of Cotton</b>	<b>13,700</b>	<b>7,020</b>
<b>Operational Costs</b>		
Transport to Ginneries	500	500
Ginning	1,870	1,870
Transportation to Port Sudan store	231	231
Grading	38.5	38.5
<b>Sub-total</b>	<b>2,639.5</b>	<b>2,639.5</b>
<b>Costs in Port Sudan</b>		
Transport/handling—store to quay	148.8	148.8
SSMO fees	13.1	13.1
Fumigation	23.6	23.6
Container fees	23.1	23.1
Local state taxes	1	1
Quay dues	109	109
Ministry of Commerce fees	2.6	2.6
Marking fee	256.4	256.4
Weighing	78.5	78.5
Others	20.8	20.8
<b>Sub-total</b>	<b>676.9</b>	<b>676.9</b>
<b>Total Costs</b>	<b>3,316.4</b>	<b>3,316.4</b>
<b>Net Cost to fob Port Sudan</b>	<b>17,016</b>	<b>10,336</b>
<b>Revenue (fob Port Sudan)</b>		
\$0.82 per lb for Barakat (average for 2005/06)	17,794	
\$0.80 per lb for Barakat	17,360	
\$0.75 per lb for Barakat	16,275	
\$0.70 per lb for Barakat	15,190	
\$0.55 per lb for Acala/Nur		11,935
\$0.50 per lb for Acala/Nur		10,850
\$0.49 per lb for Acala/Nur (average for 2005/06)		10,633
\$0.45 per lb for Acala/Nur		9,765
\$0.82 per lb for Barakat (average for 2005/06) at SD250=US\$1.0	20,500	
\$0.49 per lb for Acala/Nur (average for 2005/06) at SD250=US\$1.0		12,250

The Nur variety usually commands a 4-5 cent per lb premium over Acala but this was not the case during 2005/06 because of “stickiness” in the Nur variety caused by white fly infestation.  
LK = Large Kantar for seed cotton (315 lbs); K = Small Kantar for lint cotton (100lbs)  
Note—all costs born by small kantar of lint  
Exchange rate SD217 = US\$1.0 (av. rate for 2005/06) for all conversions apart from exceptions noted

Source: Sudan Cotton Company Ltd.

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