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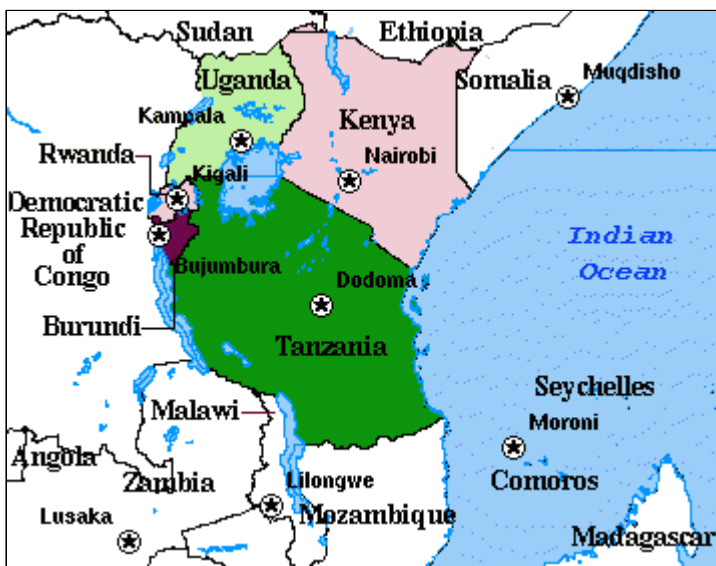
February 2004

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Great Lakes Region: Burundi, Kenya, Rwanda, Tanzania, and Uganda

The following provides a brief overview of the energy sectors of the Great Lakes region -- Burundi, Kenya, Rwanda, Tanzania, and Uganda.

Note: Information contained in this report is the best available as of February 2004 and can change.



BACKGROUND

Africa's Great Lakes region is located in eastern Africa and includes countries surrounding Lake Kivu, Lake Tanganyika, and Lake Victoria. Burundi, Kenya, Rwanda, Tanzania, and Uganda have a combined population of 107 million people, and an estimated gross domestic product (GDP) in 2003 of about \$29.4 billion (see [Table 2](#)).

The economies of the Great Lakes region states have different structures, and are at various stages of development. Uganda's economy grew at an estimated 5.0% in 2003, while Kenya's real GDP grew at

2.3% for the same year. Among the countries of the region, the rate of inflation ranged from an estimated 3.3% in 2003 in Kenya, to 7.8% in Burundi. All of the states in the Great Lakes region are dependent on foreign aid, with Rwanda, Tanzania and Uganda classified as Heavily Indebted Poor Countries (HIPCs) by the World Bank.

Kenya, Tanzania, and Uganda recently re-established the East African Community (EAC), which had been dissolved in 1977 due to political and economic differences. Under the auspices of the EAC treaty signed in November of 1999, the three countries are negotiating the framework for a customs union, scheduled to be signed in January 2004 with a view of establishing a common regional market. Officials also envisage a monetary and political union in a process which they say could take up to 20 years. Both Rwanda and Burundi, currently recovering from a number of years of political instability, have expressed interest in joining the EAC.

Besides the EAC, Burundi, Kenya, Rwanda, and Uganda are members of the Community of East

and Southern African States (COMESA), formed in 1994 and composed of 20 countries in Eastern and Southern Africa. Tanzania withdrew from COMESA in 2000, citing a high trade imbalance with COMESA-member countries, particularly Kenya. In October 2000, COMESA launched its free trade program, creating schedules for internal tariff reductions. Both Rwanda and Burundi have announced their intentions to join COMESA free trade arrangement in January 2004. By the end of 2004, COMESA aims to have a common external tariff structure for all third party trade, among other regional and cooperative goals. Tanzania is a member of the *Southern African Development Community (SADC)*, an economic regional organization similar to COMESA (see [Table 1](#) for the size and population of each country in the Great Lakes region).

ENERGY OVERVIEW

In 2001, the Great Lakes region nations collectively consumed 0.26 quadrillion British thermal units (Btu) of commercial energy (less than 0.1% of the world's total) and generated about 3.75 million metric tons of carbon emissions (also less than 0.1% of the world's total). Kenya accounted for almost 60% of the region's commercial energy consumption in 2001. Due to the relatively small urbanized population in the region, access to commercial energy sources is limited. The majority of the Great Lakes region population still relies on biofuel (wood, animal waste, etc.) as their primary fuel source. Commercial energy resources in the region include coal, natural gas (which is not yet being fully exploited), hydroelectricity, geothermal energy sources, and strong potential for oil. In 2001, 57% of electricity in the region was generated through hydroelectricity and 43% through thermal and geothermal sources. Oil prices in the Great Lakes Region have a significant impact on local economies, since the area is heavily dependent on oil imports.

OIL

Great Lakes regional oil consumption averaged about 91,000 barrels per day (bbl/d) in 2001, almost all imported. Kerosene is used extensively in rural areas for lighting and, in urban areas, for cooking and lighting. The countries of the region are attempting to discourage the use of fuel wood through joint provision of and promotion of the use of liquefied petroleum gas (LPG).

Kenya currently does not produce crude oil, and must import all of the 57,000 bbl/d it consumes (see [Table 3](#)). Previous exploration attempts for a domestic source of oil have met mostly with disappointment. However, with the most recent round of exploration performed in the later half of 2003 by Australian-based Woodside Petroleum, Pancontinental, and UK-based Dana Petroleum, and others, hopes are high that the renewed search for oil in Kenya may enjoy greater success. Most Kenyan oil companies import their oil from Abu Dhabi's National Oil Corporation (Adnoc), although in December 2002 a large consignment of oil from Dubai was rejected by Kenya on the grounds of high sulphur content, causing considerable short-term fuel shortages throughout Kenya. Sudan has also been considered as a potential alternative source of oil imports, although, until a peace agreement in the country is concluded and fully implemented, such a possibility is thought unlikely. The Kenyan government has spent about \$169 million exploring for oil and natural gas over the past 15 years. Over 30 wells have been drilled so far, but without much success.

In April 2001, Dana Petroleum was awarded several production-sharing licenses by the Kenya. The blocks - L5, L7, L10 and L11 - situated in the Lamu Basin and represent one-half of Kenya's available offshore concessions. In May 2003, Woodside Petroleum, acquired a 40% stake in those blocks from Dana. Dana will retain a 40% holding, with the remaining 20% stake held by Star Petroleum, a subsidiary of Global Petroleum. Woodside is now the operator of the blocks. A seismic study was initiated in the third quarter of 2003, after which two exploration wells are scheduled to be drilled. In April 2002, the Kenyan government executed agreements that grant exclusive exploration rights of blocks L6, L8, and L9 to Pancontinental Oil & Gas (60%) and a UK-based Afrex Limited (40%). In August 2003, Woodside farmed into the three blocks, taking a 50%

operating stake. Afrex will now hold a 30% stake, while Pancon will hold the remaining 20%. In return for its entry, Woodside will undertake the seismic work for the three blocks. A 3,488 mile survey across all seven blocks was completed and sent for data analysis during the fourth quarter of 2003 with results to be available in early 2004. Work is also continuing by the new Kenyan government of President Kibaki to introduce a New Petroleum Bill designed to help better regulate Kenya's petroleum sector. On November 21, 2003, as a sign of support for the government's reform and anti-corruption efforts, the International Monetary Fund (IMF) voted to extend a new program of loans worth \$252.75 million dollars over three years in a new poverty reduction drive in the country. Previous IMF programs in the country were suspended in December 2002 due to concerns at corruption and lack of commitment to reform by the previous government of President Daniel arap Moi.

As with Kenya, Tanzania also relies exclusively on imports for its oil needs. Since 1980, foreign oil prospectors have invested more than \$293 million searching for oil in Tanzania without success. The government in Dar es Salaam continues to encourage oil exploration in the country, seeing oil as a key to economic development. Experts have long suspected that there are considerable hydrocarbon reserves off Tanzania's coast. A second licensing round, since 2000, covering deepwater acreage to the north of Dar es Salaam was concluded in August 2002, calling for bids on 12 blocks. Bids were received from only two companies, Shell and Global Resources, both interested in blocks 9-12. In October 2002, exploration rights were granted to Shell for all four blocks. Shell conducted 2D seismic surveys of the areas, and will use the results to conduct 3D seismic surveys. Royal Dutch/Shell hopes to begin exploration in 2004 on its four deep-water blocks. Aminex, a UK oil company, operating in Tanzania, has begun test drilling in two locations offshore. The first test drill on Nyuni Island, within its Nyuni license area, started in September 2003. The company expects the well to be approximately 3,300 meters (10,827 feet) deep. The well is close to the Songo Songo gasfield and the company hopes to expand its test drilling to a near by island of Okuza. The drilling will target both oil and gas, and Aminex states that the production-sharing agreement previously signed with the TPDC provides it the right of access to the Songas pipeline in the event of a gas discovery. Petrom SA, the state oil company of Romania holds 30% partnership in the Nyuni project, while Ndovu Resources Limited, which is a subsidiary of Aminex holds 60% operating share. Bounty Oil and Gas NL holds the remaining 10%.

Uganda is especially vulnerable to rising oil prices, since it imports most of the oil it consumes (about 7,000 bbl/d) from Kenya's Mombasa refinery, which in turn imports crude oil from abroad. The rising price of imported oil products has accelerated Uganda's efforts to develop its domestic oil resources. Although Uganda has no proven oil or gas resources, renewed exploration efforts are taking place, and there are signs that the western Rift Valley may contain considerable hydrocarbon deposits. In September 2002, following a link up with South Africa's Energy Africa, Heritage Oil Corporation of Canada announced that exploratory drilling operations had begun in Block 3, located in the Semiliki Valley in western Uganda. This is the first petroleum well drilled in the country, and is intended to confirm the results of Heritage's seismic studies from 1999. That survey at Turaco-1 site, revealed a potential of 1.2 billion barrels of oil in the Semiliki Valley as well as the Pakwach basin area, northern and southern Lake Albert basin, and Lake George basin area. Heritage began drilling a second well at Semiliki in the last quarter of 2003. TotalFinaElf of France, RSM Production Corporation of the United States and Australia's Hardman Resources are showing renewed interest in the five exploration blocks in Western Uganda. To ensure itself future access and continuing operational security, Heritage also secured an exploration agreement with the government of the Democratic Republic of the Congo, which holds legal sovereignty over the left bank of Lake Albert.

Pipelines

In May 1999, the Kenyan and Ugandan governments announced plans for an oil pipeline from Eldoret in western Kenya to Kampala, Uganda. The plans were finalized in a formal agreement by the two nations in October 2000. Construction of the pipeline extension, is set to cost between \$80 million and \$100 million and is hoped to be operational by the first quarter of 2007. The 16,500-bbl/d pipeline will supply Uganda, Rwanda, Burundi, northwestern Tanzania and eastern DRC. Throughout 2002 and 2003, lack of considerable investor interest inhibited the construction of the pipeline extension. While waiting for construction to begin, Uganda has started to import some cheaper refined petroleum products from overseas, rather than rely solely on the inefficient Mombasa refinery.

In August 2002, Tanzania and Zambia announced that they are considering privatizing their jointly owned oil pipeline. A feasibility study is under way to determine whether the 1,060-mile pipeline should remain under government control. At present, Tanzania holds a 33% share in Tanzania-Zambia oil pipeline (TAZAMA), while Zambia holds the remaining 67%.

Refining

There are two oil refineries in the Great Lakes region -- one in Kenya and one in Tanzania. The Kenya Petroleum Refinery-Mombasa unit has crude processing capacity of 90,000 bbl/d, and Tanzania's Kigamboni Dar es Salaam-Tanzanian & Italian Petroleum Refining facility has 14,900 bbl/d. Kenya's refinery has been operating well below capacity and has struggled financially since the 1994 liberalization of the oil sector, which allowed local oil marketers to import finished petroleum products directly into the country. Although investors have spent approximately \$45 million to upgrade and automate the refinery since 1997, it has continued to operate at 60% below capacity. In April 2003, Kenyan government announced a plan to construct an additional new oil storage plant at the Kipevu Oil Terminal near the port of Mombassa. The new project undertaken by the Kenya Pipeline Company (KPC), as part of the company's efforts to become profitable, is expected to be completed by early 2004. Tanzania's refinery was recently closed after the World Bank urged the move, on the grounds that the refinery was no longer competitive following the liberalization of the country's petroleum industry. The refinery, which had been closed temporarily in November 1999 due to a payment dispute with TPDC, continues to act as an oil storage depot.

NATURAL GAS

Rwanda and Tanzania currently are the only two nations in the Great Lakes region with proven natural gas reserves (see [Table 4](#)). Although natural gas is not produced or consumed in the region at present, several projects have been identified for expanded use of this resource. In Tanzania, a project to exploit natural gas in the country's largest known field -- on Songo Songo Island, located in the Indian Ocean southeast of Dar-es-Salaam -- will soon be entering its final phase of development thanks to a proposed \$200-million World Bank loan, the terms of which were finalized in October 2001. Construction of the pipeline began in the last quarter of 2002, and the project is expected to be completed in 2004. Once the project is completed, the five liquid fuel turbines at the 112-megawatt (MW) Ubungo power plant will be converted to gas and the power generated by the plant will be fed directly into the national grid. Songo-Songo's reserves are estimated at 1 trillion cubic feet (Tcf) with a potential to produce 100 MMcf/d from five wells. In August 2003, first offshore well in 12 years, Nyuni-1, spudded. Tullow Oil of Ireland is currently negotiating licensing terms for the 1,004 square miles field at Mnazi Bay.

Over 90% of Rwandans today depend on biomass for their energy. Reserves of methane gas deposits in Lake Kivu are estimated to be between 55 billion cubic meters and 70 billion cubic meters, half of which is believed to be economically recoverable. So far, due to the ongoing political and economic problems in Rwanda and other countries bordering the lake, there has not been a full utilization of the lake's deposits. In 2003, however, there appeared some growing interest, spurred on by the

efforts to attract foreign investment and deregulate its power sector by the Rwandan government, assisted by the World Bank and other financial lending institutions. Feasibility studies are now being commissioned into the recoverability potential of the estimated 200 MW to 700 MW energy output from the natural gas deposits in the Lake.

COAL

Tanzania is the only country in the Great Lakes region with significant coal resources. Total recoverable coal reserves in the Lake Victoria region amount to 220 million short tons (see [Table 5](#)). The primary use of coal in the region is in the generation of electricity. Tanzania's potential for coal production lies in the Kiwira coal mine situated in southern Tanzania near the border with Malawi, and in the large coal deposits in the Ruhuhu river area.

Kenya, planning to diversify its fuel sources for electricity generation, is searching for coal in the Mui and Mutitu basins in Mwingi and Kitui districts, although no deposits have been found to date.

ELECTRICITY

In 2001, installed electric generating capacity for the Great Lakes region totalled about 1,914 megawatts (MW). Electricity generation for the region in 2001 was 9.1 billion kilowatthours (Bkwh), the majority of which-- 5.2 Bkwh--was hydroelectricity (see [Table 6](#)). Total Great Lakes region electricity consumption was 8.7 Bkwh. Kenya, Tanzania and Uganda are developing plans to share power supplies, including a regional energy interconnectivity plan that will enable any EAC country to connect with another nation's electricity supply. Among the nations of the region, Uganda has the biggest hydropower potential (from the Nile River) and would play a major part in any power-sharing project. In the last quarter of 2003, Zambia, Tanzania, and Kenya signed an accord to build an electricity grid that will connect the power grids of the three countries. The feasibility study for the scheme, which includes its environmental impact assessment (EIA), has been financed through a \$1.1 million World Bank Credit facility. Construction on the \$323 million project, which will link the three countries so that they might access electricity from the Southern Africa Power Pool (SAPP), the regional electricity group, will begin in October 2004 and are scheduled to be completed by the end of 2006. It is envisaged that transmission lines will be constructed between Serenje (Zambia), Mbeye (Tanzania), Arusha (Tanzania) and Nairobi (Kenya), and the capacity of the links may be increased to 400 MW from an originally-envisaged 200 MW. This connection should reduce the cost of power through out the region.

Kenya is highly dependent on hydroelectricity. Hydroelectricity plants provide about 75% of all electrical output. Five major stations in the Tana River basin supply power to Kenya. They are: Kindaruma (44 MW), Gitaru (225 MW), Kamburu (94.2 MW), Masinga (40 MW) and Kiambere (144 MW). The Turkwel Gorge Hydroelectric station in the Turkana district has a capacity of 106 MW. An additional 30 MW is drawn from the Owen Falls dam in Uganda. Gitaru is the biggest power station in Kenya in terms of installed capacity. The controversial Sondu Miriu hydroelectric power project in Nyakach, started in 1999, is expected to be completed by 2006, adding 60 MW to the national grid. The construction of the \$154 million dam, due to be completed by 2002, was halted and may resume in March 2004. The delay occurred in May 2002 due to the decision by the Japanese financiers that provided money for the project, to tie the release of additional funds to Kenya meeting the reform targets set by the World Bank and the IMF. The recent resumption of Kenyan contacts with the IMF helped to restart funding for the project.

In November 2003, Kenya and Tanzania began discussing a power supply agreement under which Tanzania's Electricity Supply Company (TanESCO) will supply power to the Kenyan border towns of Lunga Lunga and Vanga. To increase the country's access to additional power supply, Kenya in the same month joined in the memorandum of understanding to set up the so-called Eastern Africa

Power Pool of regional countries working toward faster electrification, increased cost-effectiveness and quality of reliable supply in the region.

Around 90% of Tanzania's energy needs are met by biomass, particularly woodfuel. Petroleum and electricity account for 8% of energy consumption, and coal and other sources for less than 1%. Tanzanian government has attempted to diversify the country's sources of energy, but so far with limited successes. The country's electricity supply has been erratic because of the national grid's heavy reliance on hydroelectric power, which in turn depends on rainfall. In the past year, poor rainfall contributed to several electricity shortages due to the inability of the country's Ubungo electricity plant to supply adequate amounts of energy through out the country. Tanesco hopes to have the Songo Songo gas fields begin supplying the country's electrical grid with additional electricity by May 2004, thus decreasing its dependence on hydroelectricity.

Tanzania's sole producer and supplier of electricity, Tanesco continues to face a severe budgetary shortfall, due largely to a multi-million dollar bill for past electricity consumption owed to the company by the Tanzanian government. In July 2002, the company cut off the electricity to a number of government and residential buildings in an attempt to increase revenues by forcing consumers to pay their past due bills. In the first quarter of 2003 a power cut off was also witnessed in Zanzibar, due to similar non-payments. In the last quarter of 2003, the Tanzanian government announced the planned privatization of the Tanesco company, expected to be completed by the last quarter of 2004. Following the example of several neighboring country's Tanesco will be split into generation, transmission, and distribution businesses with NETGroup (South Africa) to run the company during restructuring, overseen by Parastatal Sector Reform Commission.

Only a fraction of Uganda's hydroelectric potential has been developed. Much of the electricity network is poorly maintained and power cuts are frequent. Just 3-5% of the population has regular access to electricity and many towns, especially in the North of the country do not have a power supply. Through loans from the World Bank and the African Development Bank, the Ugandan government has been trying to expand access to electricity in rural areas and to fix the unreliable existing electrical grid. A 200 MW extension at the Owen Falls complex near Jinja, which entered service in 2000, increased total capacity there to 380 MW and enhanced Uganda's position as the main source of power in East Africa. Exports of electricity to Kenya are expected to rise from 30 MW to 50 MW in the next several quarters. Norpak Power, a Norwegian company was awarded a contract in 2003 to build a \$360 million-400 million hydroelectric power station in Karuma, on the River Nile in Northern Uganda. The Karuma development, currently on hold due to the uncertainties over the Bujagali project, is nevertheless, expected to become operational in 2006 and will add an estimated 200 MW to the national grid.

The controversial Bujagali dam project was put on hold in July 2002, when the World Bank decided to suspend its support pending further study of the project's environmental consequences and the investigation of corruption allegations associated with the project. In August 2003, US-based AES company announced its pull out from the Bujagali project due to difficulties with financing of its international operations, prompting the World Bank and the Government of Uganda to begin a search for replacement investors. The \$550 million hydroelectric dam would be East Africa's largest foreign direct investment project. Opponents say that the dam would be damaging to the environment and would promote excessively high electricity prices in the country.

The Ugandan electricity board split into three entities with transmission assets, under Uganda Electricity Transmission Company (UETC), to be retained by the state and the generation and distribution components to be sold as 20-year concessions. The government of Uganda is also actively seeking \$1.69 billion in foreign investment over the next ten years to upgrade its energy

sector. In April 1999, British consultants carried out a national energy plan for Uganda which later received government approval. The plan listed five electricity generation units, including the Bujagali hydroelectric facility (250 MW-2,000 MW), Karuma dam (100 MW-200 MW), promoted by Norpak, and the rehabilitation of the Nalubaale dam (formerly the Owens Falls dam) (180 MW) and its extension (five units of 40 MW each). Under the plan, Uganda's government is to retain ownership of existing power stations, but will be able to cede them to private operators under leasing agreements. In August 2002, the South African energy firm Eskom Enterprises made the sole bid for management of the Uganda Electricity Generation Concession (UEGC). The firm offered to charge \$41.7 million and is seeking a 12% rate of return on any investments. Eskom plans to spend \$35.8 million in generation and maintenance costs.

A 10-point confidence rebuilding accord was reached in November 2003 by the previously mutually antagonistic governments of Uganda and Rwanda that would see the increase in the energy supply by the former and the expansion of the 132/110 KV Mbarara-Gikondo transmission line between the two countries. Around 86% of Burundi's energy consumption is biomass, comprising of wood, charcoal and peat, and only 11% is petrol products, and 2% electricity. Only 1.5% of the population has access to electricity, over 90% of supplies of which are consumed in Bujumbura.

Rebel attacks through out 2003 and the still not fully implemented cease fire accords and agreements between the various warring sides in Burundi have resulted in several power disruptions to the Burundian capital and have prevented any hydroelectric energy development in the countryside.

RENEWABLE ENERGY

Kenya has two steam stations, the Olkaria renewable power station (45 MW) and the Kipevu Thermal Station (45.5 MW). Nairobi is promoting additional geothermal power, and plans to commission at least six geothermal power plants, with a combined capacity of 3,894 MW, by 2006. The government has also identified the northern Kenyan town of Marsabit as a potential site for installation of a wind-powered electricity generation site that would add 4,400MW to the national grid. The government also hoped to increase its production of geothermal electricity threefold by 2003 when two new geothermal power plants, costing \$155 million, were scheduled to be completed at Olkaria. Construction of the 64-MW Olkaria II plant began in January 2000 and by October 2000 was injecting 13 MW into the national grid. The Olkaria III geothermal plant was been constructed and was expected to have a generating capacity of 64 MW by July 2003. Due to budgetary problems similar to Sondu Miriu, however, Olkaria II was only completed in November 2003. When the plants are all online, geothermal power is expected to account for approximately 18% of Kenya's power output by 2017. The government is tabling a Renewables Bill, which will prioritize the buiding of geothermal power projects. The Kenyan Energy Ministry estimates that Kenya has a potential for over 2,000 MW of installed capacity of geothermal electricity, second only to New Zealand.

SUMMARY TABLES

Table 1. Great Lakes Country Overview				
Country	Area (sq.km)	Population, millions (2003E)*	Capital city	Head of State
Burundi	27,830	6.1	Bujumbura	President Domitien Ndayizeye (Since 30 April 2003)

Kenya	582,650	31.6	Nairobi	President Mwai Kibaki (Since 30 April 2003)
Rwanda	26,338	7.8	Kigali	President Paul Kagame (Since 22 April 2000)
Tanzania	945,087	35.9	Dar es Salaam	President Benjamin William Mkapa (Since 23 November 1995)
Uganda	236,040	25.6	Kampala	President Yoweri Kaguta Museveni (Since seizing power 26 January 1986)
Total	1,817,945	107		

Sources: CIA World Factbook 2003 (estimates explicitly take into account the effects of excess mortality due to AIDS; this can result in lower life expectancy, higher infant mortality and death rates, lower population and growth rates, and changes in the distribution of population by age and sex than would otherwise be expected.

Table 2. Great Lakes Region Economic Overview

Country	Nominal GDP (\$billion) 2003E	Real GDP Growth Rate 2003E	Inflation Rate/CPI 2003E	U.S. Merchandise Trade (\$million) 2003E		Currency	
				Exports to	Imports from	Name	exch. rate 01/15/04 US\$1 =
Burundi	0.6	2.1%	7.8%	2.9	5.8	Franc	1,060
Kenya	11.5	2.3%	3.3%	184.9	226.8	Shilling	76.10
Rwanda	1.7	3.4%	5.8%	7.4	2.4	Franc	556.55
Tanzania	9.3	4.9%	4.0%	62.8	22.3	Shilling	1,063.50
Uganda	6.3	5.0%	7.4%	38.1	32.4	Shilling	1,952.50
Total	29.4	--	--	296.1	289.7		
				U.S. Trade Balance			
				6.4			

Sources: Global Insight Forecast Analysis September 2003; University of British Columbia Sauder School of Business, Pacific Exchange Rates Service; U.S. Census Bureau, Foreign Trade Statistics

Table 3. Great Lakes Region Petroleum Overview

	Estimated			
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Country	Proven Crude Reserves - 1/03 (million barrels)	Crude Oil Production (barrels per day) 2002E	Crude Oil Refining Capacity (barrels per day) 1/03	Oil Consumption (barrels per day) 2001E
Burundi	0	0	0	3,000
Kenya	0	0	90,000	57,000
Rwanda	0	0	0	5,000
Tanzania	0	0	14,900*	17,000
Uganda	0	0	0	9,000
Total	0	0	104,900	91,000

Source: Oil & Gas Journal; Energy Information Administration *Note: Tanzania's refinery is no longer operational, and is now being used as an oil storage depot.

Table 4. Great Lakes Region Natural Gas Overview			
Country	Estimated Proven Gas Reserves (billion cu. feet) 1/03	Gas Production (billion cubic feet) 2001E	Gas Consumption (billion cubic feet) 2001E
Burundi	0	0	0
Kenya	0	0	0
Rwanda	2,000	0	0
Tanzania	800	0	0
Uganda	0	0	0
Total	2,800	0	0

Sources: Oil and Gas Journal; Energy Information Administration

Table 5. Great Lakes Region Coal Overview			
Country	Estimated Recoverable Coal Reserves (million short tons)	Coal Production (million short tons) 2001E	Coal Consumption (million short tons) 2001E
Burundi	0	0	0
Kenya	0	0	0.07

Rwanda	0	0	0
Tanzania	220	0.01	0.01
Uganda	0	0	0
Total	220	0.01	0.08

Sources: Energy Information Administration

Table 6. Great Lakes Region Electricity Overview							
Country	Installed Capacity (megawatts) 1/01	Net Generation (billion kilowatthours, Bkwh) 2001E			Consumption (Bkwh) 2001E	Trade (Bkwh) 2001E	
		Total	Thermal/ Geothermal	Hydro		Imports	Exports
Burundi	49	0.155	0.001	0.154	0.17	0.03	0
Kenya	934	4.033	3.319	0.713	3.98	0.23	0
Rwanda	31	0.096	0.002	0.094	0.14	0.05	0
Tanzania	620	2.905	0.548	2.357	2.75	0.05	0
Uganda	280	1.928	0.017	1.910	1.62	0.001	0.174
Total	1,914	9.117	3.887	5.228	8.66	0.361	0.174

Sources: Energy Information Administration

Sources for this report include : Africa News Service; Africa Energy Intelligence; African Energy; Agence France-Press; AllAfrica; BBC NEWS; CIA World Factbook 2003; Dow Jones/Factiva News wire service; Economist Intelligence Unit Country Reports; Global Insight; Mbendi Business Network; Oil and Gas Journal; Oil Daily; U.S. Energy Information Administration; U.S. Census Bureau; US Department of State; The World Bank.

Links

For more information from EIA on the Southern African Development Community, please see:

- [EIA - Country Information on Burundi](#)
- [EIA - Country Information on Tanzania](#)
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Links to other U.S. Government sites:

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File last modified: February 5, 2004

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