Vast resources exist for economic development in Sudan

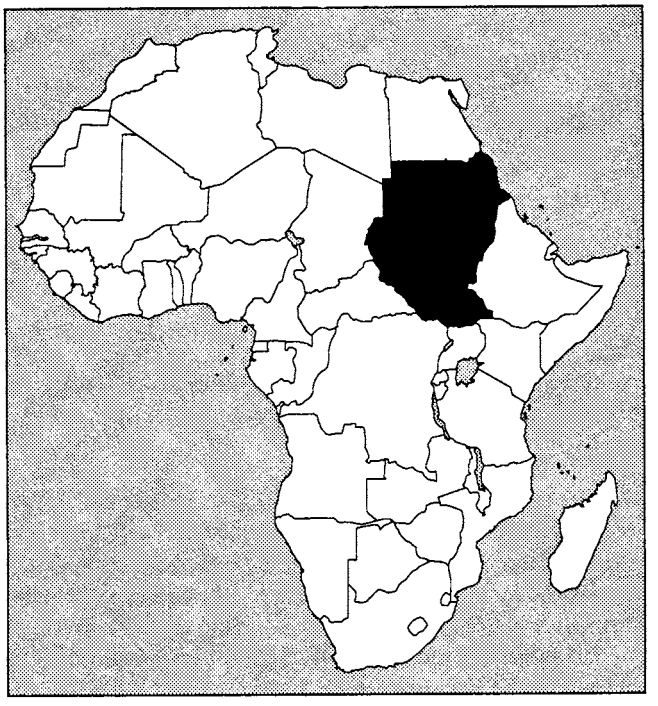
by Marcia Merry Baker

In terms of physical resources, Sudan ranks high as one of the world's top "natural" breadbasket regions. In area, it is the largest country in Africa and the ninth-largest in the world, although it ranks only 32nd in terms in population. Sudan is over a quarter of the area of the United States.

Sudan is strategically located as a cultural bridge between the Arab Middle East and the African continent, and a geographical bridge between the Mediterranean and central Africa, stretching along the Nile River system, and bordering on the Red Sea (see **Figure 1**).

There are 2,506,000 square kilometers (966,757 square miles) in Sudan, much of it with gentle terrain. There are four mountain regions: In the east are the Red Sea Hills, running parallel to the coastline; near the west is the volcanic Jebel Marra mountain range, which forms the drainage divide between the Nile and the Lake Chad basins; on the central western plains, the Nuba Mountains form scattered granite hills rising up to 1,000 meters; in the south on the Uganda border are the beautiful rain-forested Imatong and Dongotona Mountains. The Imatong is the highest mountain in Sudan, at more than 3,000 meters.

FIGURE 1
Sudan in the African continent



Besides its size, the geography of Sudan is notable for its diversity. Sudan's latitudinal span, extending from just below the Tropic of Cancer all the way south nearly to the Equator, allows the nation great agro-ecological variation, ranging from desert (about 25% of the country), to pasture land and grain fields in the central belt, to lush mountain valleys of orchards, and other fruits, vegetables, and fiber crops, through to coffee and tropical products in the south (see **Figure 2** and **Table 1**).

Sudan has at least 81 million hectares (200 million acres), which could easily be cultivated, which is more than half the currently cultivated acreage-base of the United States. This acreage could potentially produce crops sufficient to feed almost all of Africa. Sudan has another 88 million hectares (218 million acres) suitable for forestry, and 23 million hectares (57 million acres) for pasture.

However, at present, only 6.8 million hectares (17 million acres) out of the potential 81 million hectares are cultivated—only 8.5% of the potential farmland base. Of these 6.8 million harvested hectares, 5.1 million hectares are rainfed cultivation, and merely 1.82 million are irrigated. Because annual rainfall is highly variable—up to 40% variation from year to year—the annual output of the rainfed agriculture in central Sudan is therefore highly variable. These swings would be itigated, even without large-scale irrigation, if other inputs were available—mechanization, farm chemicals, transport, and storage capacity.

Water throughput

Figure 3 shows how the average rainfall bands vary from 25 millimeters a year in the desert of the north, bordering Egypt, through to 400 mm in central Sudan—similar to the North American prairies—down to 1,100 mm a year in the south, where there are swamps and rain forests.

From south to north flow the waters of the Nile system, with the lower Nile formed at Khartoum by the juncture of the Blue and White Nile Rivers (see previous article).

In Sudan's water throughput, there are an average of 130

FIGURE 2
Sudan's average annual rainfall

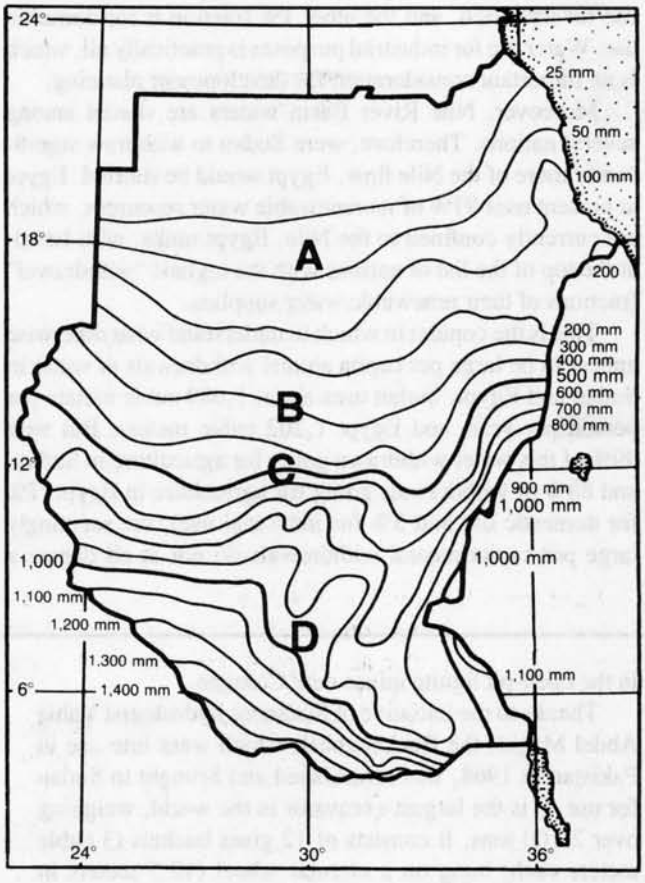
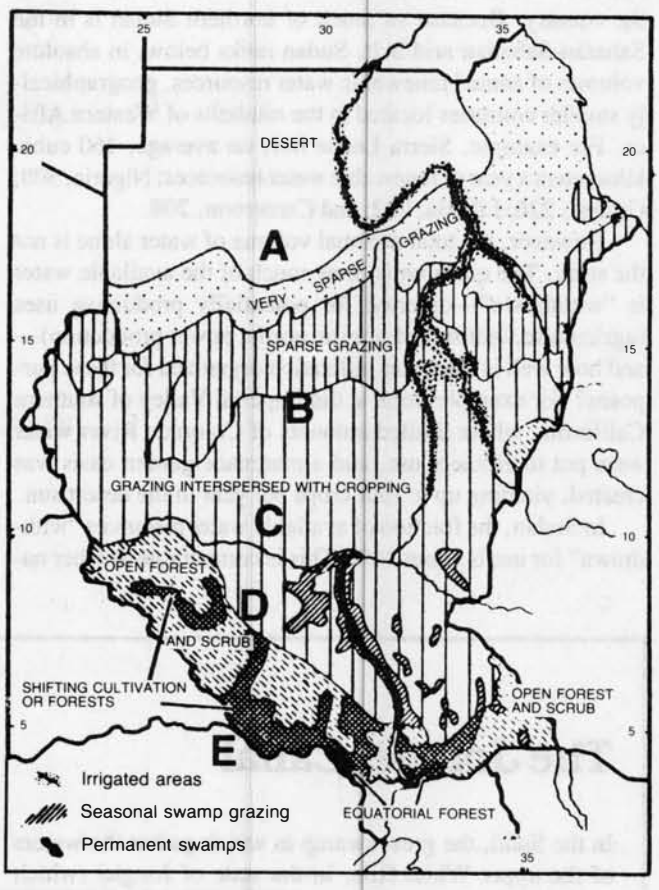


FIGURE 3
Sudan's diverse agro-ecology: land use zones



Note: The letters on the maps refer to the ecological zones, described in Table 1.

TABLE 1
Sudan's agricultural resource areas in differing ecological zones
(millions of hectares; estimated by the Sudanese Agriculture Ministry)

	Total area	Pasture area	Cultivated area	Total area available for agriculture	Forested
Ecological zone					
A. Desert	71.9	—	—	—	
Semidesert	48.6	9.7	—	—	
B. Savanna (sandy, low rainfall: 300-400 millimeters)	32.4	28.6	3.8	—	
C. Savanna (higher rainfall: 400-800 mm)	35.9	31.9	4	32	
Subtotal—Northern Sudan:	188.8	70.2	7.8	32	
D. Savanna (high rainfall: 800-1,300 mm)	34	22.7	—	11.4	
E. Flood area	24.2	—	—	—	
Mountainous	.6	—	—	—	
Forested					24.2
Subtotal—Southern Sudan:	58.8	22.7	N.A.	11.4	24.2
Total Sudan:	**247.6**	**92.8**	**7.8**	**43.4**	**24.2**

cubic kilometers a year of what hydrologists call "renewable water resources" (from precipitation, run-off from Nile system waters outside the national borders, etc.) available to the country. Because so much of northern Sudan is in the Saharan-Sahelian arid belt, Sudan ranks below, in absolute volumes of annual renewable water resources, geographically smaller countries located in the rainbelts of Western Africa. For example, Sierra Leone has, on average, 160 cubic kilometers a year of renewable water resources; Nigeria, 308; Guinea, 226; Liberia, 232; and Cameroon, 208.

However, the total national volume of water alone is not the story. The question is, how much of the available water is "withdrawn"—diverted for potentially productive uses (agriculture, industry, domestic needs, power production)—and how well is the water utilization organized for these purposes? For example, look at the Imperial Valley of southern California, where limited amounts of Colorado River water were put to efficient use, and a manmade garden oasis was created, yielding up to four crops per year in the desert sun.

In Sudan, the fraction of available water resources "withdrawn" for use is about 14%. This is comparable to other nations located in arid zones—South Africa at 18%, or Mexico at 15%. Of Sudan's 14% annual withdrawals (18.6 cubic kilometers on average), fully 99% of this is applied to agricultural use for irrigation, and the other 1% fraction is for domestic use. Water use for industrial purposes is practically nil, which is an important consideration for development planning.

Moreover, Nile River Basin waters are shared among several nations. Therefore, were Sudan to withdraw significantly more of the Nile flow, Egypt would be shorted. Egypt at present uses 97% of its renewable water resources, which are currently confined to the Nile. Egypt ranks, with Israel, at the top of the list of nations with the highest "withdrawal" fractions of their renewable water supplies.

This is the context in which to understand what otherwise appear to be large per capita annual withdrawals of water in Sudan and Egypt. Sudan uses about 1,089 cubic meters per person per year, and Egypt 1,202 cubic meters. But with 99% of this water withdrawn going for agriculture in Sudan, and 88% of withdrawals going for agriculture in Egypt (7% for domestic use and 5% for industrial use), the seemingly large per capita annual withdrawals do not at all denote a

The Jonglei Canal

In the Sudd, the great swamp in which gather the waters of the upper White Nile, in the state of Jonglei (which borders on the south with the equatorial states of Sudan), there stands a half-finished, 180-kilometer long, manmade channel, the northern portion of the Jonglei Canal. The completed canal is intended to divert a portion of the water from entering the Sudd, and send it directly for a total of 360 km, from south to north, from Bor to Malakal (see **Figure 4**) to provide great ecological and economic benefits to both the immediate region and downriver lands.

In 1994, the President of Sudan, Gen. Omar El Bashir, announced a commitment to completing the project.

The channel digging began in 1978, after a 1976 agreement (and 1980 emendations) between the government of Sudan and the French engineering firm Compagnie des Constructions Internationales (CCI). A famous excavating machine, the "Roue-pelle," or "Bucketwheel," was brought in from Pakistan, where it had dug the 101-km Chasma-Jhelum link canal between the Indus and Jhelum rivers (completed 1970). The Bucketwheel was built for the Pakistan project by the Lübeck-based German firm of Orenstein und Koppel Tagebau und Schiffstechnik, based on an adaptation of a digger in use in the open-pit lignite mines near Cologne.

Thanks to the initiative of Sudanese hydrologist Yahia Abdel Magid, the Bucketwheel, which went into use in Pakistan in 1968, was refurbished and brought to Sudan for use. It is the largest excavator in the world, weighing over 2,100 tons. It consists of 12 giant buckets (3 cubic meters each) hung on a circular wheel (12.5 meters in diameter), which dig earth, then dump it onto a transmission belt, which in turn deposits it on an embankment. It is self-propelled. Operating at full tilt in 1981, the Bucketwheel was excavating 2 km a week, and digging at a rate of 2,500-3,500 cubic meters per hour. There were three eight-hour shifts of 25 operators, including Pakistani, Sudanese, and French nationals. The great machine requires 40,000 liters of gasoline per 24 hours.

Now the Bucketwheel lies disabled in Jonglei. In 1984 all work on the canal was suspended, after counterinsurgency operations were mobilized against it and other infrastructure initiatives, by opponents of development in Africa.

The canal is designed to divert about 25 million cubic meters a day from the southward flow of the upper Nile waters just north of Bor (see Figure 4), and channel it through a cut of 360 km, which would deliver at Malakal about 4.7 billion cubic meters annually.

This would mean adding to the downriver Nile volume about 3.8 billion cubic meters yearly, as measured at Aswan (subtracting for losses in transmission). Under applicable agreements, this increment of water would be shared

high-tech, advanced economic profile.

As a comparison, the United States withdrew 2,162 cubic meters per capita in the early 1970s, with 42% in agriculture, 46% in industry, and 12% domestic use.

Both Egypt and Sudan would gain more water from Nile flow from the Jonglei Canal and other upper Nile system improvements, perhaps up to 7% more water downstream, and there are watersharing agreements in place for this incremental increase. But the essential source of additional water to these dry lower Nile lands is to desalinate Mediterranean Sea, Red Sea, and Suez saltwater with cheap nuclear power, at strategic development locations on the coastlines.

Limited transport grid

The limited transport grid in Sudan reflects decades of deliberate non-development under imperial British rule, and its continuation under the postwar regime of the International Monetary Fund and World Bank (see **Figure 4**).

There are only about 5,503 kilometers (3,432 miles) of rail lines in Sudan, and these lines are mostly between major towns. There is no real area density of rail coverage; statistically, rails are 0.0019 km per square kilometer of the country. There are 29 diesel locomotives. The rail links run between Port Sudan and Khartoum in the east; Wadi Halfa' in the north (on the Egyptian border); El Obeid in central Sudan; Nyala in the west; and Wau in the south. The administrative center and manufacturing and repair shops of the Sudan Railways Corp. are in Atbara, north of Khartoum on the Nile River.

As of the mid-1980s, the overall road network, not counting dirt tracks, added up to 6,599 km (4,100 miles), of which 3,160 are main roads, and about 60% is paved. This means the national statistical road density is 0.03 km per square kilometer. Thus, like rail, this limited length of paved roadway does not constitute area coverage, but is a system of selective links. In 1980, a major road between Port Sudan and Khartoum was completed (1,197 km, or 744 miles). Bridge improvements on the White Nile have facilitated traffic circulation between Khartoum, North Khartoum, and Omdurman.

Another way to look at the lack of paved roads is that there are 98 km of paved roads per 1 million persons in Sudan. In contrast, there are 302 km of paved roads in Egypt per million persons. In Nigeria, 376 per million persons. In continental United States, there are 10-15,000 km of paved roads per million people.

50-50 by Sudan and Egypt.

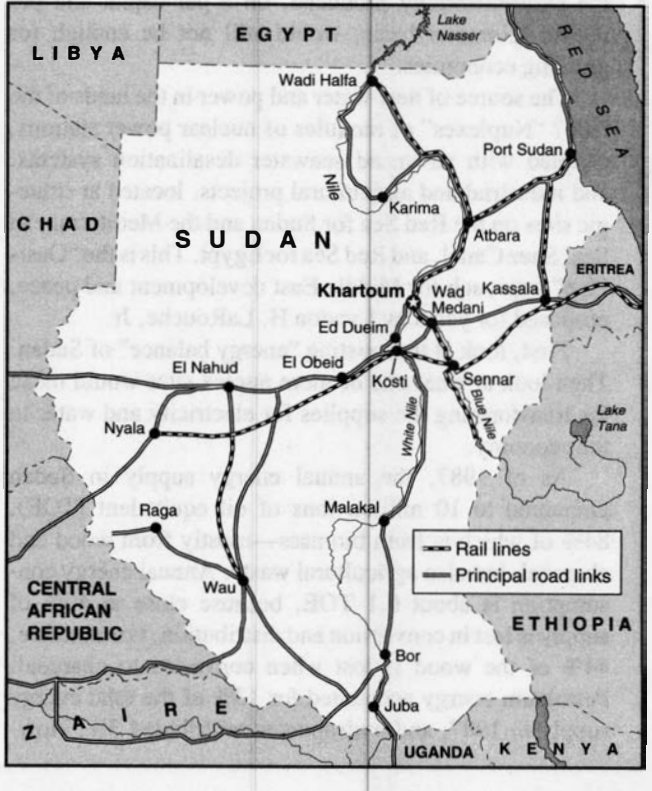
The draw-off of 25 million cubic meters daily from the feed waters of the Sudd would reduce the swamp area by an estimated 36%, from an average total swamp area (1905-80) of 16,900 square kilometers down to 10,800 square kilometers. The designed flow rate is 3.5 km per hour to inhibit weed growth.

The canal is designed to vary in width from 28 to 50 meters, and to vary in depth from 4 to 7 meters, to accommodate boat traffic. Parallel to the canal there is intended to be an all-season roadway, and ancillary projects include slipways, bridges, ferries, civil works for crossings and regulation, and other infrastructure.

Proposals for the Jonglei Canal, and other major Sudd and Nile Basin projects, go back generations. In many cases, engineers under British rule were the most enthusiastic designers and advocates of improvement projects, but imperial "hydropolitics" blocked development initiatives at every turn.

For example, in 1904, Sir William Garstin, inspector general of irrigation at the Egyptian Ministry of Public Works, proposed what became known as the "Garstin Cut" to channel the White Nile; but it and successor designs were blocked, until Sudan became independent and took action on its own. In 1876, a member of the British Royal Engineers, Gen. F.H. Rundall, proposed a high dam at Aswan. But it took the development policy of Egyptian President Gamal Abdul Nasser to make this happen.—*Marcia Merry Baker*

FIGURE 4
Limited transport grid



For many locations in Sudan, the Nile River is the key transport link. River transport between Kosti and Juba (1,436 km, or 892 miles) had no overland alternative as of the mid-1980s.

The principal seaport of the nation is Port Sudan, on the Red Sea, and as of 1988, Sudan had 25 merchant vessels registered.

Small population

There are only 26.5 million people in Sudan, as of 1992, in an area the size of the European Community, where 300 million people reside. This means there are an average of 10 persons per square km, in contrast to over 200 per square km in Europe. Sudan's population is comparable to that of Taiwan, which is 80 times smaller in area. Sudan's small population, and certain related vital statistics, reflect the consequences of decades of British imperial rule.

About 30% of the population lives in urban centers, and there are over 2 million refugees in various locations in the country. As of the mid-1980s, the principal towns, with their population at the last census, which was in 1983 (the populations are all higher now), were:

Omdurman	526,287
Khartoum (capital)	476,218
Khartoum North	341,146
Port Sudan	206,727
Wadi Medani	141,065
Al-Obeid	140,024
Atbara	73,009

Nuplexes can make new water, power resources

The additional flow to the Nile for Sudan and Egypt from the completed Jonglei Canal of some 4 billion cubic meters a year, when considered on a per capita and per square kilometer basis for 86 million people, shows the need for new sources of water. Likewise, were all potential dam sites to be completed on the Nile system (see diagram), the hydroelectricity produced, on a per capita and per square kilometer basis, would still not be enough for growing economies.

The source of new water and power in the lands of the Nile? "Nuplexes" of modules of nuclear power stations, coupled with advanced seawater desalination systems, and industrial and agricultural projects, located at strategic sites on the Red Sea for Sudan and the Mediterranean Sea, Suez Canal, and Red Sea for Egypt. This is the "Oasis Plan" approach for Middle East development and peace, proposed for years by Lyndon H. LaRouche, Jr.

First, look at the existing "energy balance" of Sudan. Then look at what one or more nuplex sites would mean for transforming the supplies for electricity and water to the economy.

As of 1987, the annual energy supply in Sudan amounted to 10 million tons of oil equivalent (TOE), 84% of which is from biomass—mostly from wood and charcoal, but also agricultural waste. Annual energy consumption is about 6.1 TOE, because close to 40% of supply is lost in conversion and distribution. For example, 44% of the wood is lost when converted to charcoal. Petroleum energy accounted for 13% of the total energy supply in 1987; and hydropower contributed 3%. However, hydropower accounts for 60% of the electricity supply. This share is declining somewhat, as thermal electric generating stations can be built.

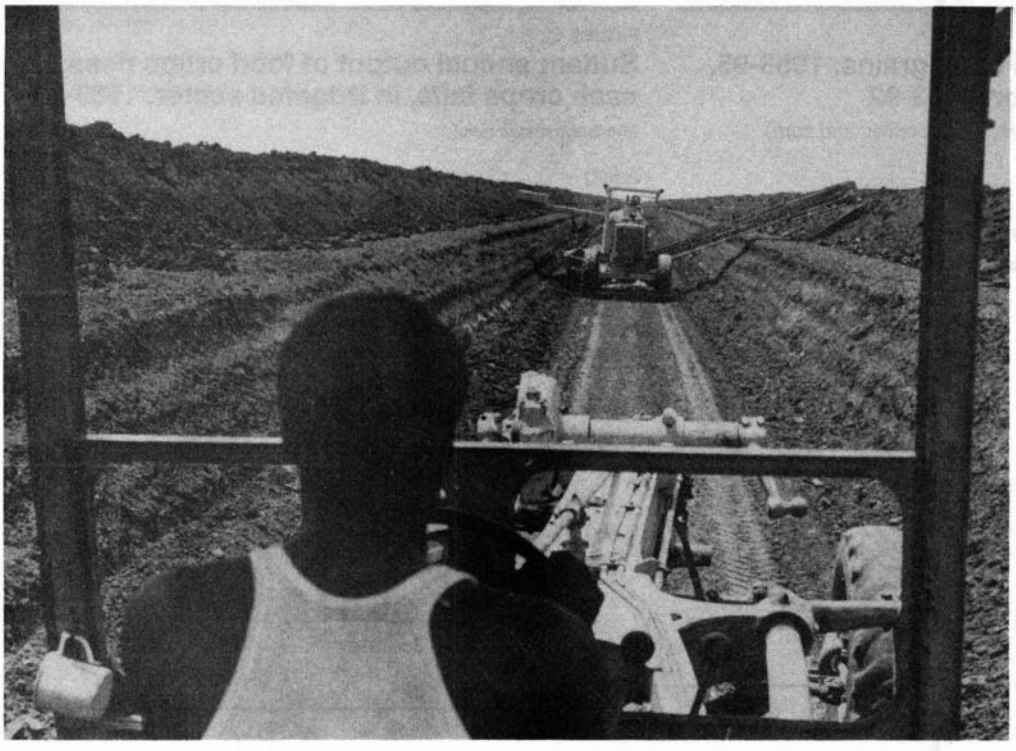
But compared to even the most modern hydroelectric generator, just one nuplex installation can begin to shift the energy and water-use balances into new modes.

The Roseires Dam Hydro Station on the Blue Nile has a maximum capacity of 250 MW of electricity. The Sennar Dam downstream has 15 MW.

There are new designs for high-temperature gas-cooled nuclear reactors (HTGRs) based on underground modules of 200-350 MW each, that are safe, can be assembly-line produced and installed in series as required, and coupled with modern desalination systems. A study for the Metropolitan Water District of California for the Pacific coast, found that a single desalination plant, consisting of four 350 MW HTGRs, could produce 146.1 million cubic meters of water a year—the equivalent of a small stream. In addition, the four-module nuplex would provide 466 MW of electric capacity.

Another type of HTGR design comes from Germany, with many features made-to-order for the seacoasts of the dry lands of the lower Nile. The reactor is 200 or 300 MW (a useful size where the transmission grid is being developed), but highly efficient and safe. Called the "pebble-bed" reactor, the fuel is pellet shaped (0.5 millimeter diameter), and can employ thorium (the use of which has been developed in India) in the cycle.

The power and water from the nuplex generators could be put to intensive use for high-tech agriculture, food and industrial processing, and chemical production. In a compact region such as the Jordan River basin, merely 20 such installations—ideally located at points along man-made seawater canals—could create the water equivalent of a new Jordan River.—*Marcia Merry Baker*



Construction of a canal in Rahad, Sudan. One of Sudan's priorities to accelerate development is to make existing water resources more readily available for domestic, agricultural, and industrial use.

Figure 4 shows the locations of these largest towns, and some others. Outside the towns listed, the remaining 90% of the population lives in the smaller towns and villages.

As of 1994, the average life expectancy at birth was about 53 years for men, and 55 years for women. There were 42 births per 1,000 people, and 12 deaths per 1,000, for an increase rate of 3%. As of 1994, infant mortality was 80 deaths per 1,000 live births.

There are hospital beds on the ratio of 1 bed per 1,222 persons. There is one physician per 9,439 persons.

The average literacy rate is less than 30% for men, and less than 20% for women.

These statistics show only that large-scale improvements in essential domestic and social infrastructure—safe water, sanitation, health care, education facilities—are needed to make up for the degradation of conditions under British rule.

What is outstanding is the commitment and effort to provide for the general good, despite restricted means and inherited limitations.

Population expansion, and expanding the physical infrastructure to support this, are part of the explicit goals of the economic planning document *The Sudan: The Comprehensive National Strategy,* issued by the Government of the Republic of Sudan in 1992. This plan starts from the premise that the nation is underpopulated, assumes a continuing population growth rate of at least the present 2.7% per year, and sets goals for it as part of the economic development mobilization.

The school-age population is about 40%. Training the youth is stressed in the introduction to the Sudanese strategy document, which states the aim of a "renaissance of thought and cultural development," and in particular, giving "classical beauty and science" to the youth. It says: "Our nation is a young nation. The population growth indicators show that for a long time to come the predominance of youth growth will be the pattern. This fact necessitates that increased attention will be given to this very vital sector for its own sake, and for the investment of its potential."

Not only youth, but "people are an incarnation of the divine on earth, and . . . from this principle spring basic human rights." The plan's overall statement of national objectives refers to "noble values" of the family and culture, "dignity of the state," including its defense capabilities, and "liberty and prosperity of the citizen."

Agriculture, the major economic sector

Agriculture is the dominant sector in the Sudanese economy. It is the source of employment for 68-70% of the labor force, and agricultural products account for 95% of export earnings. The main imports include a broad range of industrial goods, petroleum products, chemicals, and foodstuffs.

Figure 5 shows the annual tonnage of production of all grains in recent years, showing a differentiation, by farm sector (irrigated, rainfed "traditional," or rainfed mechanized) for 1983 to 1994. The graph shows that during the 1980s, the size of the annual grains harvest (sorghum, wheat, millet, corn) was on average about 3 million metric tons, and the bulk of that came from the rainfed, not the irrigated

FIGURE 5

Sudan: annual output of all grains, 1983-95, and by farm and sector, 1983-92

(thousand metric tons of sorghum, wheat, millet, and corn)

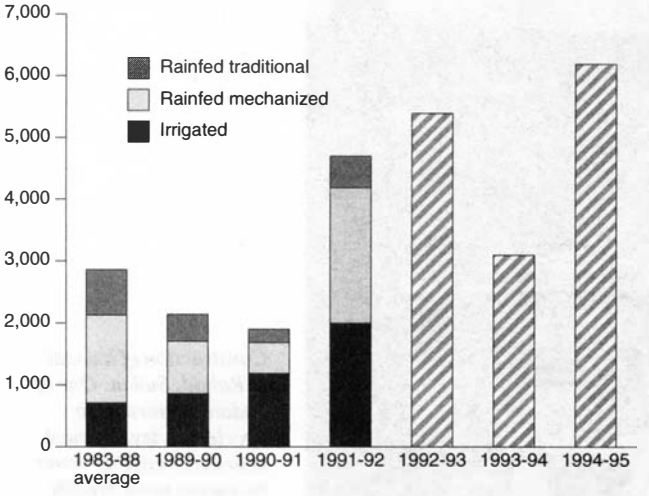
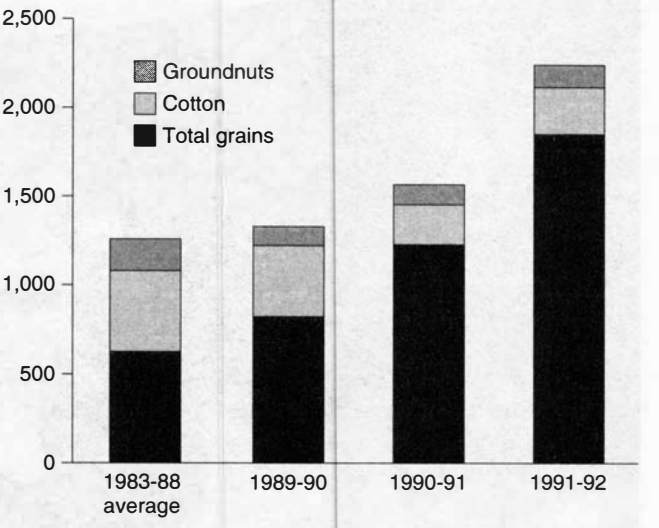


FIGURE 6

Sudan: annual output of food crops rises, cash crops falls, in irrigated sector, 1983-92

(thousand metric tons)



sector. The cash crops were concentrated in this irrigated sector—-cotton and peanuts, particularly in the Gezira, described below.

But starting in the last season of 1990-91, a policy shift was made by the new government, to cultivate enough basic grains in the irrigated sector, mostly the Gezira, to guarantee a certain tonnage of grains staples so that national food security would be guaranteed.

After two years, key parts of this emergency program succeeded, to the point that in 1993 Sudan began supplying grain to the World Food Program and shipping food aid directly to Bosnia, Afghanistan, Zambia, Zimbabwe, and other points of need. By carefully diverting certain limited agricultural inputs, such as irrigated area and fertilizers, away from quick cash crops and into staples, Sudan achieved a grain surplus in 1993.

Total grains output reached 4.59 million metric tons in 1991-92, and 5.691 mmt in 1992-93. The harvest this year is expected to be the best ever, projected at over 6 million metric tons.

Figure 6 shows the irrigated sector crop output shift from predominantly cash crops (groundnuts and cotton) to more grains as of 1991-92. However, even with the new balance of food-to-cash crops in the irrigated sector, sizable cash crop harvests are still taking place. The harvest of cotton and groundnuts that just ended this year is excellent.

The Gezira irrigation project is the largest, oldest, and most important agriculture scheme in Sudan, and the largest farm in the world under one management. Located in the triangle area formed by the Blue and White Nile rivers, and the Sudan Railway line between the towns of Sennar and Kosti, the Gezira constitutes 12% of the total area cultivated in Sudan. It was started in 1911, with 250 feddans, which is 105 hectares (1 feddan is 0.42 hectares or 1.038 acres). As of 1962, it had reached 882,000 hectares. It was nationalized in 1950, and today the management system represents tenants, employees, and the national food security and export revenue interests. The main crops grown in the Gezira are cotton, sorghum, wheat, groundnuts, vegetables, and fodder.

As of the mid-1980s, the profile of the relative annual tonnages of the top agriculture food products produced were, in metric tons:

Sorghum	4,274,000
Dukhn	481,000
Millet	428,000
Peanuts	402,000
Sesame(largest in Africa)	228,000
Wheat	185,000
Sugarcane	4,800,000

In addition, there are thousands of tons of smaller food crops—tomatoes (150,000 tons), cassava (128,000 tons), yams (115,000 tons), dates (116,000 tons), and corn (40,000 tons).

Sudan is the world's largest producer of long staple cotton. In 1986-87, Sudan's cotton output was 780,000 bales. In 1985, cottonseed was 360,000 tons, and cotton 196,000 tons. Sudan is Africa's largest producer of sesame, and the world's largest producer of gum arabic—supplying 80% of

TABLE 2
Estimated numbers of livestock in Sudan, 1985-92
(thousands of head)

Year	Cattle	Goats	Sheep	Camels
1985-86	19,632	13,799	18,690	2,712
1986-87	19,739	13,942	18,801	2,705
1987-88	19,858	14,196	19,207	2,722
1988-89	20,167	14,482	19,668	2,732
1989-90	20,593	14,843	20,168	2,742
1990-91	21,028	15,278	20,701	2,757
1991-92	21,600	18,700	22,600	2,800

Source: Government of Sudan; UNIDO.

the world's use of the product, which is derived from the acacia tree.

As of the mid-1980s, the principal exports, in rank order of cash value were: cotton, gum arabic, sesame, and peanuts. In addition to that were a variety of other agriculture exports, including meat and livestock.

Table 2 shows the growth trend in Sudan's national livestock inventory in recent years. This past year, livestock numbers increased sharply because of the good rainy season, and good provision of inputs. Several institutions are intervening to develop the livestock sector, including "The Livestock Bank," with branches all over the country, and the Anaam Corp. (*anaam* means "livestock" in Arabic).

The principal imports to Sudan, in rank order of monetary value were, as of the mid-1980s: manufactured goods, transport equipment, machinery and other equipment, foodstuffs, chemicals, and petroleum products.

In the mid-1980s, Saudi Arabia was the single largest trade partner, accounting for about 15% of Sudan's imports (mostly petroleum), and buying 14% of Sudan's exports. Other important trade partners included the United States, Britain, Germany, Japan, France, and Italy.

Mineral and oil wealth

Among the diverse rock formations in Sudan are identified deposits of a range of minerals including gold; sulphides of copper, zinc, and silver; chromite ores, iron ores, tungsten, and manganese. There are gypsum, silica sands, and many other economically useful deposits.

Exploration for oil began in the 1950s, and has identified several major fields. In 1993, Sudan for the first time ever, began to pump and refine its own oil.

The Sudanese "Comprehensive Plan" for the future calls for foreign investment in economic infrastructure for the purpose of "raising the volume of such investment in the agriculture and agro-industrial sector to the highest possible level," and using oil and mineral export revenues for that purpose.

Sudan emphasizes better education

by Muriel Mirak-Weissbach

The education reform launched by the Bashir government of Sudan is sure to be seen as a *casus belli* from the British oligarchical standpoint. As that standpoint was enunciated by Lord William Rees-Mogg, a principal spokesman for the British monarchy and its elite Club of the Isles, in a commentary in the Jan. 5 London *Times* entitled "It's the Elite Who Matter—In Future Britain Must Concentrate on Educating the Top 5%, on Whose Success We Shall All Depend," upwards of 95% of the population would barely survive as uneducated, brutish serfs, in bondage to the remaining 5%, who will form a new feudalist elite (see *EIR*, Feb. 17, p. 37).

If the oligarchy pursued that policy consistently during its colonial control over Sudan, with the aim of skimming off the top 5% of the subject population, putting it through British-type schools, and deploying it as its local lackey class, the new trend constitutes the opposite.

For the British, who controlled Sudan from 1898 to 1956, "education" was a means to ensure total control over the subject population. This involved destroying the existing school system and supplanting it with a British system, limited to those few chosen to be administrators for the masters.

In Egypt, for example, there were 5,000 traditional schools, and the famous Islamic university Al Azhar, which had 8,000 students and 300 professors. Britain disinvested in the traditional sector after it occupied the country in 1880, forcing instruction in English rather than classical Arabic. Governor-General Lord Cromer reportedly fought to prevent the founding of *any* universities, for fear they would become places to "manufacture demagogues." Thus, Cairo University was founded only in 1907. By the time the British left Egypt nominally independent, "the country had in its official modern educational sector no more than 10 secondary schools with 3,800 pupils (43 of whom were girls)."

In Sudan, British education policy was part and parcel of its attempt to create in southern Sudan what one historian has dubbed a "Christian, anti-Islamic bantustan . . . more rigidly controlled and also far larger and more important than any of those being set up in South Africa" (see article, p. 47). In 1922, the British sealed off the south from the north. In order to form a layer of southern lackeys, the British set up schools through the missionaries, which were dependent on the colonial power.

In the south, the British went to work to replace Arabic with English as the medium of education. Although the gov-