

WORLD EDUCATION ENCYCLOPEDIA

Volume III

George Thomas Kurian



Facts On File Publications

WORLD EDUCATION ENCYCLOPEDIA

Edited by
GEORGE THOMAS KURIAN

Volume III

Major Countries
Sudan—Zambia

Middle Countries
Afghanistan—Zimbabwe

Minor Countries
Andorra—Yemen

Appendixes



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World Education Encyclopedia

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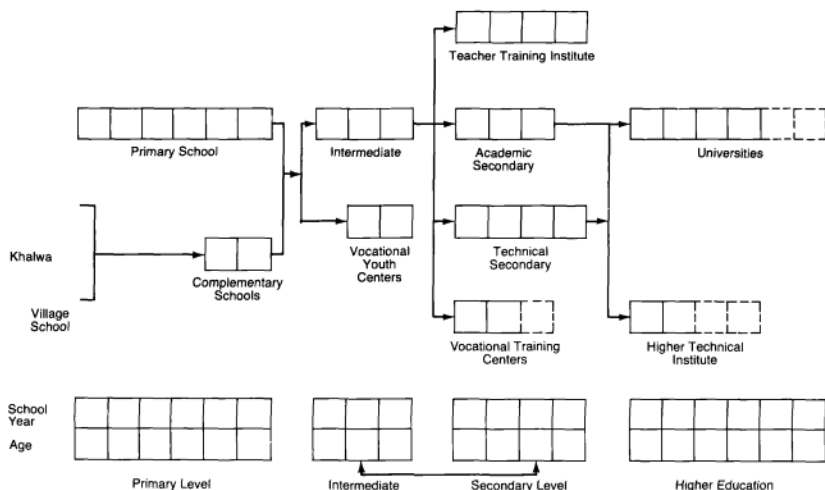
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Figure 1
Educational System — Democratic Republic of the Sudan



Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982*, Khartoum, 1982.

period was the ending of the civil war between North and South after some 17 years of fighting. The war was concluded with the Addis Ababa Agreement of 1972, and regional autonomy was granted to the southern portion of the country, with an underlying promise for a fairer distribution of resources among the regions.

Sudan is currently experiencing serious economic problems and has huge foreign debts. The discovery of oil, however, holds promise for a brighter economic future. As it now stands, the country is among the 25 least developed countries in the world, with an estimated GNP per capita of U.S. \$440 as of 1984.

Upon independence, the educational system of Sudan was basically still that established under the British administration, modeled after education in Great Britain and the colonies. The system as a whole was elitist, catering to a small portion of the population, that destined to enter the ranks of the government bureaucracy. The curriculum of the school at all levels was academic-theoretical. Education for women was seriously neglected; for example, primary schools for girls were established only after 1920, although a girls' school had been established on a limited scale

in Rufa in 1908. Secondary schools for female students were set up only much later.

Constitutional & Legal Foundations

Education in Sudan can be traced to the beginnings of Islamic civilization and culture. When Moslem nomadic tribes occupied the areas adjacent to the Nile beginning in the 14th century, they established Koranic schools, or *khalwas*. These schools, under the guidance of learned teachers (*fagih*), taught Arabic reading and writing as a means of learning the Koran. The *khalwas* survived the various colonial occupations and to this date continue to operate as a system parallel to public education, especially in the early grades. During the periods of Turco-Egyptian rule and the *Mahdiya*, Christian missionary schools and other primary schools were established. In 1902, the Gordon Memorial College was established by the English as an institution to provide the fundamentals of primary education as well as vocational skills. This institution provided the basis for the development of secondary education and vocational schools in Sudan. Eventually this school became the University of Khartoum.

During the period of the Anglo-Egyptian condo-

minium, educational policy was set by the British governors-general. Lord Kitchener and Sir Francis Wingate were particularly influential, as well as the first director of education, Currie. Currie set the following aims for education:

1. The creation of a competent artisan class which was entirely lacking at the beginning of the century.
2. The diffusion among the masses of the people of education sufficient to enable them to understand the merest elements of the machinery of government, particularly with reference to the equitable and impartial administration of justice.
3. The creation of a small native administrative class who would ultimately fill many minor government posts.
4. Training the Sudanese to replace Egyptians in the army, and Egyptians and Syrians in the junior administrative positions.

Under this policy, the primary schools were to assist in producing skilled government employees, such as clerks, telegraph operators and surveyors. Also, in 1900 the Omdurman Primary School was founded to prepare teachers. By 1908, a formal system of government schools was established embracing primary, secondary and technical education levels. Before the outbreak of World War I, Sudan had a tripartite educational system—the government schools, the Koranic schools and the Christian missionary schools. Beginning in 1927, the *ahlia* (high) schools were established, these were private or voluntary schools founded by leading educators and other intellectuals who were dissatisfied with the quality of the government schools.

In 1937, the De La War Commission made significant recommendations for the improvement of curriculum and instruction in Sudanese schools, primarily aiming at making the educational programs relevant to the employment needs of the country. One of the recommendations provided the basis for changing the Gordon Memorial College from a secondary school primarily to a higher education institution, the graduates of which, after an examination, would be on the same footing as their peers in Great Britain. In general, the development of third level, or tertiary, education in Sudan is one of the results of the work of this commission.

Formal educational planning began in 1938, when the First Education Plan (1938–1946) was developed. Under this plan and later, under the Second Education Plan (1946–1956), provisions were made to expand all

levels of education and to reorganize missionary education in the South under limited government control. The most recent effort, the Six-Year Development Plan (1977/78–1982/83), again focused on educational expansion and sought to provide equal educational opportunity to children and youth residing in the different parts of the country. The plan also sought the eradication of illiteracy by 1990. Along with the plan, the Ministry of Education set the following general objectives to be attained within the six-year period:

1. Raising the percentage of all children in the first grade from 43.7% of the relevant age-group to 75%. In this projection, boys' enrollment percentages were to be raised from 53.7% to 87%, and girls' from 32.8% to 42%.
2. Raising the overall enrollment in primary schools from 35.6% of the relevant age-group to 60%.
3. Redistributing secondary schools or establishing new ones in such a way as to reflect the diverse needs of the various regions of the country and to satisfy the demands for agricultural, industrial and commercial education as well as teacher training and women's education.
4. Expanding the provision for higher education to allow all qualified students to be admitted to appropriate institutions and to correlate institutional offerings with regional and national development.
5. Emphasizing rural education and the direct involvement of educational institutions in the development of agriculture and agro-industry. Participation in local production efforts would also assist the institutions in question to meet their own cost of education.

The current overall aim of education in Sudan is stated in the General Education Act of 1976:

General education in the Sudan aims at giving a balanced and integrated education for mental, physical, spiritual and moral development. That is to be achieved through the development of basic attitudes, promotion of the spirit of initiative, leadership, responsibility, scientific outlook and devotion to work and productiveness in order to achieve socio-economic development aiming at the creation of a healthy socialist community, promotion of national unity, and veneration for the country's heritage and values, and for Arab and African heritage, all this in conformity with the Sudan constitution and the Charter of National Work and the State general policy.

Educational System—Overview

While under colonial rule, the school organization followed a 4-4-4 pattern; in 1970 it changed to a 6-3-3 plan. Thus, six years of primary school are followed by three years of intermediate school and then three years of secondary school. Naturally, there are some variations, especially for youth who do not pursue the academic ladder—as will be explained subsequently.

As shown in Figure 1, which provides a chart of the educational system, children are normally enrolled in the first grade of the primary school at the age of seven. Schooling is open to all children, but, as yet, there are no compulsory education laws. After six years of schooling, children are eligible, after passing an examination, for a primary school certificate; and if they wish they may continue into the intermediate schools. Those successfully passing the intermediate school exam may enter the various secondary schools or teacher training institutes. Competitive examinations are also required for advancement into the third level of education (secondary school). As shown also in Figure 1, the age limits for each successive stage of education are, roughly: 7-12 in the primary schools; 13-15 in the intermediate schools; 16-18 (or 16-19) in the secondary schools; and 19-24+ in the higher educational institutions.

Table 1 shows that, as of 1981-1982, there was a total of 8,191 schools, enrolling 2,003,505 students and employing 65,523 teachers. The enrollment rates by level of education and sex were as follows: primary education, 45.6% male, 34.3% female; intermediate,

26.5% male, 18.2% female; secondary, 14.7% male, 7.2% female. Although in recent years there has been considerable improvement toward parity between male and female enrollment, the data indicate that disparities still exist, especially at the secondary level. These disparities are to a large extent due to traditional beliefs among the populace regarding the education of women, i.e., the notion that boys but not girls need to have formal education. In addition, the institutional practice of maintaining separate facilities for males and females has operated as a limiting factor. For example, of a total of 4,806 primary schools in the country during 1976-77, only 1,445 were for girls whereas 2,804 were for boys. Of the 557 schools labeled coeducational, one-third were located in the South. Needless to say, in thinly populated areas facilities segregated on the basis of sex are not cost-effective; most coeducational institutions in the country, therefore, are to be found in such areas. For each level of education, there are government schools as well as private and missionary schools.

While some provinces, for climatic reasons, have different school calendars, the general pattern is for schools to begin the academic year in July and to close in March. Universities that run on a two-semester basis generally operate between July and April (first semester: July-November; second semester: December-April) in the South; the University of Juba, for example, runs from September to December and from March to August. Not including the South, schools normally operate on a six-day week, with Friday being the day off.

Table 1
Schools, Students and Teachers at Primary, Intermediate and Secondary Levels, 1981-1982

Level		Schools	Students	Teachers
Kindergartens <i>Khalwas</i>	} Preprimary	N.A.	N.A.	N.A.
		3,120	100,900	2,399
Primary		6,176	1,524,381	46,437
Intermediate		1,629	329,709	12,676
Vocational		8	915	121
Academic	} Secondary	300	124,200	} 4,847
Industry		15	5,670	
Commerce		36	9,265	
Agriculture		3	2,210	
Girls		1	590	
Teacher Training Institutes		18	6,566	596
Total		11,306	2,104,406	67,922

Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982*, Khartoum, 1982.

The languages of instruction represent the diverse ethnic groups that occupy the country. As a rule, Arabic is the language of instruction in the North, in all pretertiary education. In the South, native languages are used as the medium of instruction in the first part of the primary school; as students progress through the upper primary and intermediate grades, Arabic is used increasingly, and beginning with secondary schools English persists as the language of instruction. At the university level, the language of instruction can be English or Arabic, depending on the nature of the institution. No information is available on grading systems.

Major curriculum decisions are made by the Ministry of Education (MOE). Consequently, the ministry is largely responsible for issuing course syllabi and textbooks for use in schools. Until 1978, however, because of the lack of an adequate infrastructure, many textbooks were printed abroad and some were imported from Egypt and England, and elsewhere. Naturally, the content of many of the books was not appropriate for Sudanese students. With the establishment of a government-run textbook corporation in 1978, an attempt was made to increase the volume of textbooks produced locally.

Prior to 1976-77, the Sudan Examinations Council in Khartoum had the responsibility for implementing the examination program in the country's schools. With the effort to decentralize the system, regional examinations secretariats have been established (in the South) to oversee the end-of-level exams for primary and intermediate schools. Primary and intermediate school certificate exams are graded and entrants into the next level of education are selected at the regional assistant commissioner's office in each province. The secondary school certificate examination is conducted on a national basis; the Examinations Council in Khartoum has ultimate responsibility for it.

The formal educational system makes very limited use of audiovisual and other technologies. The typical Sudanese classroom contains only desks for the students and the teacher, and a blackboard. In some areas even bare classrooms are not available, forcing the students to be sent to existing schools in two or even three shifts. As in many parts of the developing world, there is a felt absence of school libraries and science laboratories. Audiovisual equipment acquired through international agencies, etc., often goes unused since provisions for maintenance and repair were not included in the utilization plans. The relevant bureaus in the MOE, i.e., Educational Television Audiovisual, etc., make valiant efforts, but given their limited resources and the relatively fast expansion of enrollment, they are largely frustrated in their efforts. As indicated further on, it appears that modern educa-

tional technology operates at a more advanced level in the nonformal education sector.

Preprimary & Primary Education

There are currently very few preprimary schools, in the form of nurseries or kindergartens, in Sudan. Most of those in operation are private and are located in the Khartoum area. Some children between the ages of five and seven attend the *khalwas*, or Koranic, schools, where instruction is offered in the early evening hours. There are no statistics to indicate the exact number of children enrolled in preprimary schools.

As Figure 1 indicates, primary schools include those in which attendance is set in a six-year cycle. There are in addition, however, the *khalwas* and the village schools (the latter existing only in the South), in both of which attendance is limited roughly to four years of study. Upon completion of these two types of schools, children may enter the two-year complementary schools, which seek to complement the education received in religious or public schools, and then sit for the primary school certificate examination. Table 1 gives the 1981-1982 enrollment figures for the primary schools and *khalwas*. There are no official figures on the village schools; a rough estimate is that there are 800 to 1,000 such schools, accounting for an enrollment of 30,000 to 40,000. It should be noted that the highest enrollments among the *khalwas* are in South Darfur and North Darfur, which during 1981-1982 had 36,000 and 20,000 students, respectively. (Both of these provinces are located in the western part of the country.)

Table 2 provides a summary of enrollments in primary schools by sex and type of school, for the academic year 1981-1982.

There seems to be an uneven distribution of the primary education provision among the various provinces. For example, the urban/northern provinces have a higher enrollment ratio than the rural/southern provinces. As of 1981-82, the Nile, Northern, Gezira and Khartoum provinces had 87.3%, 75.8%, 67.4% and 63.1% enrollment ratios, respectively. On the other hand, Southern Darfur and the southern provinces had a low of 26.6% and 35.3% respectively. In view of these figures, the aims of the government concerning democratization of the educational provision are yet to be realized. It should be noted, however, that many of the schools, especially those outside the urban centers, accept students as boarders. For example, of a total of 439,199 students enrolled in government girls' primary schools in 1981-82, 18,660, or 4% of the total, were boarders.

The overall student-teacher ratio for primary schools in 1981-82 was reported to be 34:1. There are

Table 2
Summary of Primary Education, by Sex and Type of School, Academic Year
1981-1982

Type of Education	Schools				Pupils			Teachers
	Boys	Girls	Coed.	Total	Boys	Girls	Total	
Government Boys	2,067	—	—	2,067	576,794	—	576,794	
Government Girls	—	1,578	—	1,578	—	439,199	439,199	45,004
Government								
Coeducational	—	—	2,295	2,295	316,022	155,170	471,192	—
Nongovernment	—	—	212	212	17,804	8,523	26,327	559
Private	—	3	2	5	370	982	1,352	30
Egyptian Mission	—	—	6	6	1,579	810	2,389	64
Catholic Mission	3	1	8	12	3,131	3,626	6,757	150
Foreign Community (all in Khartoum)	—	—	6	6	180	191	391	30
Grant Total	2,070	1,582	2,529	6,181	915,880	608,501	1,524,401	45,837

Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982*, Khartoum, 1982.

no data to indicate differences in the student-teacher ratios between rural and urban provinces or between North and South. Statistics indicate, however, that the more qualified teachers are to be found in the urban areas and in the North. For example, of a total of 4,452 primary school teachers in Khartoum, only 704, or 16%, were "untrained." In the Southern Region, however, 1,666 out of 3,432, or 48% of the total, were untrained.

As mentioned before, the completion of primary school and the awarding of the primary school certificate assumes the passing of the school-leaving examination. For 1979-80, the success rate on this exam was 63.7%; of a total of 164,663 students who sat for the exam, 104,874 passed. This rate was certainly an improvement over 1978-79, when only 50% of those taking the exam passed. Also, boys and students in urban areas and in the North did better than girls and students in the South. In the Khartoum area and in Gezira, 65.3% and 68% of the boys, and 62.7% and 57.9% of the girls, respectively, passed the examination. In the Southern Kordofan region, 43.2% of the boys and 39.6% of the girls passed the exam. There are no statistics for the Southern Region.

The intake "ratios" as well as the rates of transition from primary to intermediate school tend to favor males. For Sudan as a whole, the intake ratio for 1981-82 (that is, the percentage of seven-year-olds enrolled in the first grade) was 53.9% for boys and 43.0% for girls. For Khartoum, it was 60.8% for boys and 57.2% for girls. For all southern provinces, it was 47.6% for boys and 28.6% for girls. The transition rate from primary to intermediate school for Sudan as a whole was 58% for boys and 42.8% for girls. Transition rate is the ratio of students in the first grade of the intermediate school to the students in the sixth grade of the primary school the previous year. Certainly, the

relatively low rates of success on the exams determine adversely the size of the transition rates for all educational cycles. The internal efficiency of the Sudanese system was reported to be fairly good in relation to other developing countries. For example, in 1976-77, the dropout rate during the primary school cycle was reported to be only 26% for the respective intake group of students. The average number of years needed to complete the primary school was 7.2.

The curriculum of the primary schools is no different from that of schools in other Arab countries. It includes religion, Arabic, math, science and personal hygiene, history, geography, art and handwork, and physical education. Rural education and industrial arts for boys, and home economics for girls, are also included in the school program. The program, overall, is heavily geared toward the teaching of language, religion and the humanistic subjects. For example, during the first year of the primary school, 10 out of 20 periods per week (each period being 40 minutes in length) are devoted to the study of Arabic and religion. The pattern persists in the second grade, where 13 out of 27 periods focus on the study of Arabic and religion. As mentioned before, several schools in the South offer the vernacular languages during the first three years. There are also schools where the medium of instruction is English, or curricular streams where either English or Arabic is the language of instruction.

Secondary Education

As Figure 1 indicates, after successful completion of the primary school grades and the awarding of the primary school certificate, students are eligible to enter the first stage of the secondary level schools, or intermediate cycle. This stage consists of two types of schools—the highly selective three-year intermediate

Table 3
Summary of Intermediate Education, by Sex and Type of School, Academic Year 1981-1982

Type of Education	Schools				Pupils			Teachers	
	Boys	Girls	Coed.	Total	Males	Females	Total	Males	Females
Government Boys	853	—	—	853	157,555	—	157,555	—	3,891
Government Girls	—	553	—	553	—	109,788	109,788	8,785	3,891
Government Coeducation	—	—	53	53	13,156	3,073	16,229	—	—
Private	23	34	—	57	5,383	7,663	13,046	—	—
Evening	—	—	—	95	18,327	10,895	29,222	—	3,035
Egyptian	1	2	8	11	706	675	1,381	74	3
Catholic	2	2	3	7	654	802	1,456	—	—
Foreign Community	—	—	2	—	—	—	1,031	—	—
Grant Total	879	591	66	1,629	195,781	132,896	329,708	8,859	10,820

Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982*, Khartoum, 1982.

schools and the two-year vocational youth centers.

As per Table 1, there were 1,629 intermediate schools in 1981-82, enrolling some 329,709 students. Table 3 shows the distribution of these students by sex and by type of school. As in the other stages of education, male students are in the majority, with 195,781, or 59.4% of the total. The majority of the students attend the one-sex government schools. As in the case of primary schools, there are other types of intermediate schools that enroll 46,136 students out of 329,708, or 14% of the total enrollment. These schools include private schools, evening schools sponsored by the Teacher's Union, Egyptian Mission and Catholic Mission schools, and the foreign community schools.

Educational opportunities, as with primary schools, are unevenly distributed in the intermediate schools. For example, the male enrollment rates in 1981-82 were 26.5%, as opposed to female rates of only 18.2%. Enrollment rates in the southern and western provinces were markedly smaller than those in the northern or urban areas. As is the case with primary education, many schools accept boarders. In schools where boarding facilities are available, everything is offered free of charge to the students. In 1981-82, for Sudan as a whole, there were 20,124 female boarders in government intermediate schools and 32,984 male boarders. The majority of these boarders were to be found in the rural areas.

The overall student-teacher ratio for intermediate schools was reported to be 22:1. There are no statistics to indicate variations by region. In terms of teacher qualifications, however, schools in the North and in urban regions again appear to have the edge. Of a total of 12,676 intermediate school teachers, 5,782, or 46%, were reported to be "untrained."

For Sudan as a whole for 1981-82, the success rate for receipt of the intermediate examination certificate was 51.4% of the total number of students sitting for the exam (i.e., 51,944 out of 101,043 students). Again,

the success rate for boys was generally better than the success rate for girls. In Khartoum, for example, the success rate for boys was 44.2%, for girls 40.1%. Only in two provinces, Northern and Red Sea, were girls slightly more successful than boys. The overall success rate of 51.4% in 1981-82 was considerably lower than in 1980, when the rate was 59.9%. Since 1968-69, the rate has fluctuated from a low of 43.6% in that year to a high of 69.9% in 1973-74. The rate of transition from intermediate to secondary school for Sudan as a whole during 1981-82 was higher for girls than boys—46.1% and 41.6% respectively. The dropout rate for the intermediate (as well as upper secondary) schools was 20%, and the average time needed to complete the cycle was 3.9 years; at the upper secondary level it was 3.8 years.

The curriculum of the intermediate school is offered in 40 periods per week and includes religion (3 periods), Arabic (8), English (7), math (6), science (4), history (2), "Sudan society" (2), geography (3), sports (2), arts or projects (2) and "library" (1).

Students who for one reason or another do not enter the general intermediate schools may, after passing an examination, enter the youth vocational centers. These centers, of which there are about a dozen in the country, provide a two-year program in vocational/technical skills and are under the supervision of the Ministry of Labor. There are no details on the operation of these centers.

Those who pass the intermediate school certificate examination may enter one of the following institutions: academic secondary school; technical secondary school; teacher training institutes; or vocational training centers.

The academic secondary schools are of three-year duration and prepare students to sit for the Sudan school certificate examination. As shown in Table 4, there were, during 1981-82, 300 such schools, with 4,847 teachers, enrolling 124,200 students. The 181 government schools had the majority of the students

Table 4
Summary of Secondary Education (Academic), by Sex and Type of School, Academic Year 1981-1982

Type of Education	Schools			Students			Teachers	
	Boys	Girls	Total	Boys	Girls	Total	Males	Females
Government Boys	112	—	112	56,665	151	56,816	3,828	601
Government Girls	—	69	69	—	31,977	31,977	—	—
Evening	—	—	95	18,327	10,895	29,222	—	—
Private	1	4	5	277	802	1,079	31	18
Egyptian Mission	—	—	14	2,635	1,370	4,005	307	15
Catholic Mission	—	—	4	493	535	1,028	35	6
Foreign Communities	—	—	1	32	41	73	2	4
Grand Total	113	73	300	78,429	45,771	124,200	4,203	644

Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982*, Khartoum, 1982.

(about three-fifths of the total upper secondary school enrollment). There were also 95 evening schools sponsored by the Teacher's Union, which enrolled 29,222 students. Private, Egyptian Mission, Catholic Mission and Foreign community schools operated as well.

The overall enrollment percentages in the academic secondary school were, in 1981-82, 14.7% for males and 7.2% for females. As with the lower levels, however, enrollment ratios were most favorable in the urban and northern provinces. For example, the enrollment ratios for Khartoum were 14.0% and 11.6% for males and females, respectively. For the southern provinces the ratios were 8.1% and 2.6%, respectively. It should be noted, however, that boarding facilities were provided to about two-fifths of the male students in government schools (21,993 out of 56,665) and one-third of the female students (11,370 out of 31,977). There is no information on the qualifications of teachers, as was the case with the lower cycles where teachers were divided between the "trained" and the "untrained." The student-teacher ratio for upper secondary schools was 16:1.

In 1981-82, the overall success rate on the Sudan secondary school certificate exam was 58.5%; 41,306 students out of 70,585 passed. This was an improvement over 1979-80, when only 55.7% of the students passed (i.e., 33,469 of a total of 60,048 students sitting for the exam). In recent years, the highest success rate was recorded during 1977-82, when 64.0% of the students (25,851 out of 40,371) passed. During 1981-82, students enrolled in the academic section had a slight edge over students in the technical section; the former had a passing rate of 58.6%, as compared to the latter who had 57.3%. Students enrolled in government schools had a substantial advantage over the others—a success rate of 76.4%. Students in private schools had a success rate of 68.7%, followed by the schools sponsored by the Teacher's Union (53.9%). "Aided schools" had the lowest pass rates, i.e., 38.1%.

(Many schools began as private but eventually were aided by the government.)

Table 5 describes the curriculum of the academic secondary school over the three-year course of study. During the first two years, there are 38 40-minute periods per week, in which 13 subjects are distributed. The emphasis on socio-religious subjects and languages is evident. During the third year, students may choose two subjects from five groups of subjects. Those pursuing the science/math stream as opposed to the literature stream have the opportunity to take more subjects in their specialty, beginning with the second year of studies.

There were 55 technical secondary schools in 1981-82, enrolling 17,735. Of this enrollment total, only 590 were female students. Most of the students were enrolled in the commercial secondary schools (9,265 students), followed by those enrolled in the industrial (5,670) and agricultural (2,210) schools. The program of studies in these institutions extends over a four-year period and is generally divided between courses in academic and technical subjects. The technical subjects in the commercial secondary schools for boys include accounting, economics, secretarial studies, commercial mathematics, typing, finance and taxes. Similar courses are offered in the commercial section of the Women's Technical Secondary School. There, women in the home economics section take such courses as fine arts, home economics and sewing (dressmaking, textiles and fabrics). Male students in industrial secondary schools may choose a specialization from among three special programs—mechanical, electrical or building technology. Those in agriculture may specialize in animal husbandry or horticulture. Enrollment in the technical secondary schools, in spite of government efforts, is about 10% of the total secondary school student body.

In addition to the schools mentioned above, there are the vocational training centers and national industrial schools, which offer two-year programs, terminal in nature, leading to gainful employment as skilled

Table 5
The Curriculum of the Academic Secondary School
The Higher Secondary Schools (Boys and Girls)

(a) For first and second years:

Subject	Number of Periods/ Weeks	
	1st Year	2nd Year
Religion	3	3
Arabic Language	6	6
English Language	6	6
Elementary Mathematics	2	2
Biology	2	2
Physics	2	2
Chemistry	2	2
French Language	4	4
Geography	3	3
History	3	3
Art	3	3
Physical Education	1	1
Civics	1	1
Total/Week	38	38

(b) For third year:

Subject	Compulsory Subjects		Optional Subjects	
	No.	Periods/Wk.	No.	Periods/Wk.
Religion	3		Group (A):	
Arabic Language	8		Additional Math	4
English Language	7		or	
Elementary Math	7		Biology	4
Note: Minimum of two subjects chosen from the optional subjects should be studied in addition to the compulsory subjects.			Group (B):	
			Physics	4
			or	
			English Literature	4
			Group (C):	
			Chemistry	4
			or	
			History	4
			Group (D):	
			Geography	4
			or	
			French	4
			Group (E):	
			Arts	4

Total Week: Depends on number of subjects chosen

Minimum 200 school days. Each period is 40 minutes.

Source: Sudan Ministry of Education, *National Report of Development of Education 1974-1976*, Khartoum, 1977, p. 20-25, as quoted in Khangl, A.A., *The Impact of the Six Year Development Phase on Public Education in the Democratic Republic of the Sudan*; 1980, pp. 132-33.

workers. Students receive some academic training, but for the most part gain practical experience in such areas as metalwork, woodwork, leatherwork, carpet making, shoemaking, furniture making, etc. In recent years there were six such centers in operation.

Secondary education schools for teachers (teacher training institutes) are discussed below in the section dealing with the teaching profession.

Higher Education

Table 6 presents an overall picture of higher education enrollment over a 10-year period (1972-73 to 1981-82). It is interesting to note that more than one-half of all students in higher education (18,271) are enrolled in the University of Cairo, Khartoum branch, thus receiving an essentially Egyptian type of education. The University of Khartoum is second, with an enrollment of 8,424, followed by the Islamic University (1,765 students) and the new universities of Juba (in the South) and of Gezira. The other higher education institutions include the Khartoum Polytechnic, the Nursing College, the Public Health College, the Ahfad University College for Women (a private college), and the agricultural colleges of Abu Haraz and Niama. Two additional institutions have also been proposed in the West and in the North, respectively, the Darfur Institute of Arid Zones Studies and the Port Sudan Petroleum and Mining Institute. The overall gross enrollment ratio for higher education was estimated to be 1.24% in 1978.

The University of Khartoum is the leading institution in Sudan, and was founded in 1956. In that year, the Kitchener School of Medicine and the Gordon Memorial College joined together as the University of Khartoum, and in collaboration with the University of London functioned as a degree-granting institution. There are 11 colleges offering courses and degrees or diplomas: agriculture, arts, economics, social sciences, education, engineering, law, mathematical sciences, pharmacy, science and veterinary science. The university also encompasses 11 research institutes, the most important ones being: the Institute for Building and Road Research; Institute of Environmental Studies; Institute of Animal Production; and the Development Research Center. The establishment of the Faculty of Mathematical Sciences is a recent attempt to promote the disciplines of statistics and computer science. Degrees in these fields had never before been offered. In connection with the degree program and related work, a modern computer has been installed in the university's Computer Center.

The first year of university training is preparatory—students engage in the study of four or five basic subjects, including English, since the medium of instruction is English. Beginning with the second year, students are enrolled in the college of their specialization. The normal university program lasts four years, but honors degree programs include a fifth year. There are also one-year postgraduate programs

Table 6
Progress in Number of Students in Higher Education 1982-83

Academic Year	University of Khartoum	Islamic University	Cairo University Branch	Higher Institutes	Juba University	Gezira University	Total
1972-73	5,811	504	7,708	2,185	—	—	16,208
1973-74	6,359	609	11,656	2,313	—	—	20,937
1974-75	6,942	754	13,012	1,702	—	—	22,410
1975-76	7,235	1,016	10,200	2,134	—	—	20,585
1976-77	7,276	1,162	10,288	2,228	—	—	20,954
1977-78	7,912	1,262	12,314	2,537	128	10	24,163
1978-79	8,020	1,506	13,591	2,656	325	215	26,313
1979-80	7,920	1,585	13,808	2,928	409	366	27,016
1980-81	8,111	1,661	14,810	2,922	577	592	28,673
1981-82	8,424	1,765	18,271	3,402	650	797	33,309

Source: Sudan Department of Planning and Strategy, *Educational Statistics, Academic Year 1982, Khartoum, 1982.*

offering diplomas; master's degree programs, covering two years; and Ph.D. programs in selected disciplines at Khartoum. Students pay nominal tuition fees and, depending on the financial means of their parents, receive stipends for their living expenses.

The Islamic University, located in Omdurman, is dedicated to the study of Islamic religion and Arab language and culture. To this end, students may enroll in any one of the four colleges—Islamic studies, arts, law or social studies. The university is coeducational; about 10% of the enrollment is female. The medium of instruction is Arabic.

The Khartoum Polytechnic is an umbrella organization that includes a number of institutes of higher level technical education. Appropriate diplomas (mostly after three years of course work) are offered through five colleges—agricultural studies, commercial, engineering, fine and applied arts, and further education (the latter for part-time students and for short-term courses and crafts). The medium of instruction in this institution is English.

One of the consequences of the Addis Ababa compromise ending the 17-year civil war was the establishment of the University of Juba, which opened its doors to students during 1977-78. The university is strongly committed to development, especially rural development in the South, including the effective management of its natural resources. To this end, three colleges were established under the Juba University Act of 1985: the College of Natural Resources; the College of Social and Environmental Studies; and the College of Education. A College of Medicine was added later. Various degree programs and specializations are available within each college. The medium of instruction in the university is English. Since its opening, enrollment at the university (as with the other new university, the University of Gezira) has increased enormously—from 128 students in 1977-78 to 650 in

1981-82. It is expected that the institution will eventually be able to accommodate as many as 10,000 students.

The University of Gezira, like the University of Juba, is committed to assisting rural development. Instruction at this new institution began in 1978, primarily through its colleges of Agricultural Sciences, Social Sciences, Science and Technology, and Medicine. Following a year's preliminary course of study, four-degree courses are offered in various specialties. Since 1980, postgraduate courses and research activities have also been available. In its commitment to train professional and paraprofessional personnel, the university increased its student body from 215 in 1978-79 to 797 in 1981-82, and expects eventually to enroll as many as 10,000 students. The medium of instruction in the university—as is the case in all other major institutions except the Islamic University and the University of Cairo, Khartoum—is English.

The University of Cairo's Khartoum branch offers degrees through its four colleges. During 1981-82, of a total enrollment of 18,271, 5,638 students were enrolled in the College of Arts; 4,904 in the College of Law; 7,568 in the College of Commerce; and only 161 in the College of Science. The university also offers opportunity for part-time studies.

The creation of new institutions notwithstanding, many Sudanese graduating from secondary schools cannot find openings at appropriate universities. Therefore, those who are affluent or who can secure scholarships choose to study abroad. During 1981-82, there were 21,892 higher education students studying abroad, compared to 33,309 studying in Sudan. Thus, about 40% of all students at this level were abroad. A majority of these were studying in Egypt (12,500 students), followed by the United Kingdom (4,215), Rumania (800), USSR (492) and Iraq (450). The

largest number of students abroad were placed in an "other studies" category (5,353); but in descending order, there were 3,440 in polytechnical studies, 2,926 in veterinary and agricultural studies, 2,451 in medicine, 2,402 in commerce, 1,694 in engineering, 1,287 in arts, 1,030 in science, 842 in law and 467 in pharmacy.

The *Education Sector Review Report* issued by the MOE in 1977 revealed that the educational system in general "did not possess the capacity of fully satisfying the manpower requirements for development." At that time, manpower shortages were registered in agriculture and the engineering professions at the lower, middle and high levels, in descending order. For example, the shortages in the agricultural sector for 1982-83 were anticipated to be 32,500 in the lower level (i.e., skilled laborers, assistant technicians); 7,500 in the middle level (i.e., technicians); and 50 in the high level (i.e., engineers, managers, planners). Complete information is not available, but indications are that the shortages, especially at the lower technical levels, are not being met.

Administration, Finance & Educational Research

Sudan has a centralized system of education; important decisions on curriculum, textbooks and course syllabi, salaries, staff appointments and general finance are made by the minister of education or through decrees issued by the Council of Ministers. (Prior to 1973, there were two ministries—one dealing with higher education and the other with general education.) Under the present organizational system, all education is placed under one minister. Under this plan, higher education comes under the jurisdiction of the Higher Education Council, which is chaired by the senior minister. All institutions of higher learning, their administrative offices and university councils are under the authority of the council. The minister of education, through an under secretary and several directors, is responsible for general education and the operation of the schools. The MOE is organized into six directorates—planning and statistics, teacher training and inspection, technical and vocational education, general education, adult education, and administration. The Sudan Examinations Council and the office of the secretary general are included in the organizational structure. A National Council for Literacy and Functional Adult Education is directly under the minister of education. Assistant commissioners of education, responsible to the under secretary, operate in each of the 18 provinces.

In order to provide more local autonomy on educational matters, a Southern Regional Ministry of Education was established in 1972 to deal with regional issues. Regional ministers are responsible for the

operation of the schools within their jurisdiction, in light of national policies. The ministry, located in Juba, functions through a director and four deputy directors who are in charge of planning, school administration, technical services and inspection. In general, the regional ministry replicates the functions of the MOE in Khartoum, but its jurisdiction is confined to the Southern Region, which includes six provinces.

Each of the 18 provincial offices of education is headed by an assistant commissioner of education. Of these, 12 report directly to Khartoum and six, in the southern provinces, report to Juba. The assistant commissioners and their staff of inspectors see to it that the policies of the government are implemented. These officers are also responsible for reporting current statistical information on enrollments, etc., and identifying provincial needs. Provincial officers have the power to make decisions on personnel, supervision of examinations and setting the school calendar—with respect to primary and intermediate schools. Decisions on all matters relating to secondary schools, however, are made centrally, either in Khartoum or in Juba. Provincial budgets are submitted to the central authorities for approval. More recently, six regional governments were created, excluding the South, each with a regional minister of education having a great deal of autonomy. No further details are presently available on this development.

As mentioned above, the National Higher Education Council has policy making, planning and regulatory functions. The council determines the main functions of each higher education institution, sets student enrollment targets and monitors progress made by each institution. Through its Higher Education Grants Committee it provides finances and controls expenditures. The membership of the council includes five ministers outside the MOE and 12 individuals drawn primarily from high level administrators in the educational community or the community at large.

Financing of education is in large part done by the government. During 1975-76, a year for which figures are available, the MOE budget was £577 million. This amount constituted 26% of the total government expenditure. World Bank figures place public expenditure on education for Sudan to be about 4.5% of the GNP. Other sources suggest lower percentages, e.g., 3.35% of the GNP (Cameron and Hurst, 1983). By far the largest proportion of the educational expenditures is given to primary education (48%), followed by secondary (36%) and higher education (16%). It is estimated that about 90% of the expenditures go into salaries.

As indicated by the distribution of funds among the three levels of education, primary education is the most expensive to operate. Given the goal of universal primary education and the fact of ever increasing

enrollment, it is expected that more and more funds will be needed in this sector. If the government attains a universal primary school intake by 1990-91, then it is estimated that the recurrent expenditure for primary schools will almost triple (from £S35.07 million to £S91.0 million, in constant 1976 prices). At the intermediate level, only 40% of the schools are financed entirely by the government. Many schools are locally supported, e.g., by parents and other interested parties. Student fees also operate as a source of support in these schools. Beginning with the lower secondary level, students are also charged for books and other needed materials. Students enrolled in strictly government schools, primary through university, are supposed to attend free of charge. It was estimated that in 1981, nongovernment schools, intermediate and secondary, comprised 12% and 42%, respectively, of the total. Public expenditure on education per inhabitant in Sudan was among the lowest in the region. For example, in 1974 it was U.S.\$11; only the Yemen Arab Republic, the People's Democratic Republic of Yemen and Somalia had lower figures. At the same time, the United Arab Emirates registered a \$370 expenditure per inhabitant and Qatar expended \$310. The per pupil expenditure in Sudan was \$139. The UAE had a per pupil educational expenditure of \$1,641.

Given the relatively low GNP and per capita income in Sudan (\$290 in 1976), it is unlikely that additional funds will be readily available to support public education. Although under the Six-Year Development Plan there is hope that economic growth will take place at a faster pace, dependence on foreign aid will likely be continued. A significant part of this aid goes into education. For 1980-85, for example, £S22 million for education were expected to be received from abroad. The donors include international organizations such as the World Bank and International Development Agency, as well as some Arab concerns.

The Institute of Education in Bakht el Ridha has in the past, in addition to training teachers and developing school materials, carried out some research on improving the instructional methodology and the quality of the tests. The institute was recently involved in the preparation of the teacher training curriculum for those to be employed in the new Integrated Rural Education Centers (IRECs). This type of research is also conducted in the College of Education of the University of Khartoum.

There is also an autonomous governmental agency, in the office of the president of Sudan, the National Council of Research, which carries out different types of research activity. The president of the council has ministerial rank and functions as the chairman of a 22-member board, which includes other government ministers. Research carried out under the auspices of

the council is targeted to the needs of the government as it formulates policies and plans for the future. The council includes a secretariat, responsible for operation, and subcouncils that include some 240 professional and support personnel positions. The activities of the subcouncils has thus far been directed toward agricultural, medical, scientific and technological, and socio-economic research.

Nonformal Education

In the past few years, nonformal education in Sudan has pursued three interrelated objectives—the eradication of illiteracy, out-of-school youth training and rural development.

The adult illiteracy rate in Sudan in 1978 was estimated to be about 80%, or approximately 8 million people in the 10-49 year age-group. This was certainly an improvement over the 1960 rate of 13% literacy, but still not at par with the goals of the Six-Year Development Plan, which sought to reduce illiteracy, by 1983, to 30% or 40% of the adult population. There have been several means employed by the government in its quest to reduce illiteracy. First of all, the Literacy and Adult Functional Education Law of 1972 provided the legal basis for action and created the National Council for Literacy and Adult Functional Education. This council sets up policies, draws up delivery plans and administrative procedures, and assures financial support. In addition to the council, there is an Adult Education unit in the MOE that prepares appropriate curricula and educational materials in cooperation with other ministries and government agencies. As in Iraq, the Sudanese program is based on a mass mobilization strategy and involves both public and private organizations.

There are several agencies that cooperate, beyond the national level, to implement the national literacy program. The regional literacy and functional education councils operate on a provincial level, each chaired by the governor of the province and each responsible for formulating policy for the province within the national policy framework. Technical duties in the region are performed through the office of the senior adult education officer. There is further subdivision of these councils. For example, in 1978, there were 263 town and village councils; each council had a literacy and adult functional education committee. There were also 4,244 councils for urban neighborhoods and villages, these being an extension of the larger town and village councils. Supervising committees with a full- or part-time supervisor see to it that instruction is properly delivered in each case. Most of the people working in the literacy campaign come from the ranks of primary school teachers who have received additional training in the National Center for

Literacy. Sudan appears, through the means described above, to have developed an elaborate system of councils that seek to deliver services even to the remotest village.

The literacy program includes two stages: the basic and the general follow-up. During the basic stage, learners try to master the contents of two primers and two basic follow-up manuals. Those who succeed in completing this stage are considered to have the equivalent of a fourth-grade primary school education, and are issued a certificate of literacy. Classes for adults are generally held in the late afternoon or evening. The follow-up stage seeks to provide more extensive technical skills and vocational information and to make reading a lifelong pursuit. At this stage, learners use such books as *How to Write a Letter* and *Poultry Breeding*. Thus, the literacy program also relates to enhancing adult employability and rural development. At the moment, there are no available data or evaluation reports to indicate the overall success level of the literacy campaign.

Since only about 34% of the relevant age-group are in primary schools, there is a basic need to provide by other means for the education of youth outside school. The youth vocational centers and national industries schools under the Ministry of Labor offer a program of studies beyond the lower secondary school. There are also five national handicraft and national industries schools run by the MOE for school dropouts. These schools provide two-year courses in handicrafts—work in wood, bamboo, shell and leather. The most promising development, however, has been in the creation of youth training centers (YTCs), which were established in 1971 under the Ministry of Youth and Sports after receiving financial assistance from international donor agencies. These centers provide various types of activities for youth of both sexes who have never attended school or for those who have dropped out. While large centers such as those located at El Obeid and Port Sudan have a full complement of activities, the majority of them engage mainly in one of the following: (1) Training in vocational education, on a full-time basis, to prepare unschooled youth in acquiring some skills in order to gain employment in their own locality. Most of the courses offered are linked with local requirements and the co-op plan. (2) Training in prevocational extension courses for those who are primary school leavers and need to be acquainted with the use of tools, especially those used around the home. (3) Training women, on a part-time basis, in developing income-generating skills and activities. As a result of this training, women may be involved in co-op plans that facilitate the development and marketing of products based on individual or small group initiative. (4) Providing support for trainees who have completed the program and are involved

in co-op working groups. The YTCs, for example, provide guidance in running these cooperatives, and where needed lend them tools and equipment. (5) Providing preschool activities, as well as day care and some basic medical services. A feeding program and a range of educational activities are normally available for preschoolers. There is also opportunity for staff development.

The YTCs, as observed above, are closely linked with the village clubs. Emphasis is placed on skills related to agriculture, livestock, nutrition, health and environment. Graduates of these centers are absorbed by government agencies, especially those functioning on the local level. There were 23 YTCs in 1977, enrolling some 3,000 individuals. The expectation is to increase the centers to 63 and the number of participants to about 9,000 per year. The advantage of the YTCs is that anyone can attend them since no prerequisite education or diplomas are required. "Learning by doing"—practical rather than theoretical training—is the primary instructional model in all the centers.

More recently, under financial support from the World Bank, a plan for creating Integrated Rural Education Centers (IRECs) was developed, as part of the Ministry of Education. Under this plan, rural education centers provide schooling for children in the primary grades and training for adults in fields connected with rural development. Under this plan, adult women also have the opportunity to develop basic literacy, as well as knowledge of child rearing, family planning, health and nutrition, sewing, and handicraft work. Thus, the 24 IRECs under development will provide instruction to children during the day and to adults during after-school hours. In the evening, the centers provide a central place for community-based activities, including village meetings, discussions, presentations, etc.

A project seeking to strengthen the self-esteem and the skills of women was also implemented in 1979 under the initiative of the privately run Ahfad University College for Women. The project, known as the Integrated Project for Rural Women and sponsored by a voluntary association, Babiker Badri Scientific Association for Women Studies, was first conducted in five villages, located in three different provinces. Under the supervision of the Ahfad College faculty, third year college students conducted training aiming at providing rural women with new skills in income-generating activities, in health protection and family planning, in household management and in understanding the consequences of the continued practice of female circumcision.

The most impressive project in rural development in Sudan has been the Gezira Scheme. Gezira, a leveled plain extending south of Khartoum, has constructed