

FILE COPY

Annex .

AF14
VOL. 3

This report was prepared for use within the Bank and its affiliated organizations. They do not accept responsibility for its accuracy or completeness. The report may not be published nor may it be quoted as representing their views.

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT
INTERNATIONAL DEVELOPMENT ASSOCIATION

THE SUDAN GEZIRA SCHEME

October 30, 1963

EQUIVALENTS

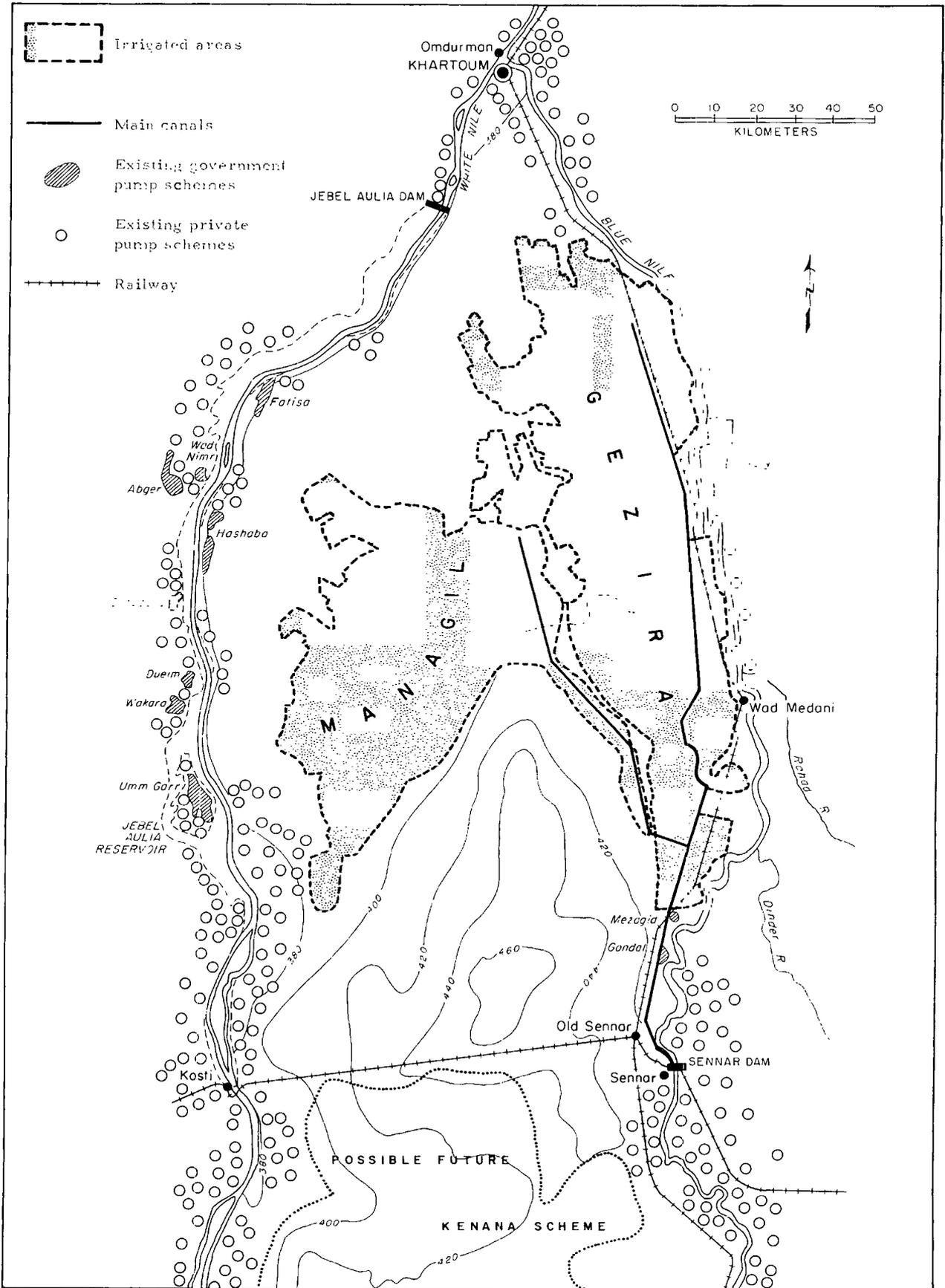
£S. 1.00 = \$2.8716

\$1.00 = £S. 0345

1 feddan = 1.038 acres = 4,200 square metres

1 kantar of seed cotton = 311.85 lbs. = ca. 100 lbs. of lint

SUDAN GEZIRA and MANAGIL SCHEMES



ANNEX A

The Sudan Gezira Scheme

The Gezira^{1/} is a triangular-shaped plain that lies between the White and Blue Niles south of Khartoum to Sennar-Kosti railway line and includes an area of about five million feddans^{2/}. The Gezira scheme is of singular importance to the economy of the Sudan. About two million feddans are irrigated from the Sennar dam, constructed in 1925 on the Blue Nile. The irrigated area starts from about 25 miles north of Sennar and almost extends to Khartoum. About two million feddans of irrigated farming, primarily under cotton, dura and lubia in rotation, make the Gezira scheme the most important source of the income of the country as well as the government, and the scheme itself an outstanding example of a successful large-scale agricultural undertaking in the world.

Since the present economy of the Sudan and its future development rest to a large extent on the administration and expansion of the Gezira scheme, it is worthwhile to examine more closely the operations of the Sudan Gezira Board, a public corporation in charge of the administration and expansion of the Gezira scheme.

The beginnings of the scheme date back to the first decade of the twentieth century, when in 1907 Sir William Garstin, a British official of the Public Works Ministry of Egypt, proposed the construction of a dam or barrage at Sennar for the irrigation of part of the Gezira. In order to interest the British Government in the financing of the project, the Government of the Anglo-Egyptian Sudan erected a pump irrigation project at Tayiba, a few miles north of Wad Medani and entrusted the administration of the project to a British company, the Sudan Plantations Syndicate, already engaged in farming at Zeidab, north of Khartoum.

The project proved successful and the British Government agreed to the financing of the Sennar dam. But due to the First World War the actual construction of the dam had to be postponed and until 1925, when the building of the dam was completed, the government and the Syndicate concentrated their efforts and financial resources on the expansion of the project through the installation of more pumps. After the construction of the dam with the availability of water, the irrigation network expanded very rapidly. On July 1, 1950, the concessions were taken over by the Sudan Government and the management was vested in the Sudan Gezira Board.

The Gezira scheme is still in the process of expansion and the completion of the Roseires dam in 1966 will bring more land under cultivation as well as intensify the production of the land already under cultivation.

^{1/} The word "Gezira" means island, in Arabic.

^{2/} 1 feddan = 1.038 acres.

The Gezira scheme is operated on a partnership basis. The partners are the Government, the Board, and the tenants. The Government provides the water through the construction of dams, irrigation canals and the installation of pumps, and the land which is either owned, purchased, or rented (if necessary, compulsorily). The Board has responsibility for the management of the scheme, promotion of the social development benefitting the people of the area, and research for increased productivity. The management responsibilities include subsidiary canalization, allocation of tenancies, mechanical land preparation, provision of cotton seed and fertilizer, pest control, farm supervision, financing of the tenants, the transport, ginning, baling and marketing of cotton, keeping of accounts and distribution of the share of the partners. The tenants are responsible for sowing, thinning, weeding, irrigation, cotton picking, and transporting cotton to collection stations.

The profit-sharing formula of the Gezira scheme is based on the traditional agricultural profit-sharing in the Nile Valley. The gross proceeds of the cotton crop are put into a joint account. The joint account (not the individual tenancies but the partnership as a whole) is charged with all costs incurred by the tenants until the final disposal of cotton. These consist of the cost of fertilizers, anti-pest spraying, sacks, transport, ginning, baling, insurance, and marketing expenses, etc. The net proceeds are divided among the Government, the tenants and the Board in the proportion of 42:42:10. Of the remainder, 2% goes to local government councils in the Gezira and 2% is spent on social development. So long as the "Tenants' Reserve Fund" built up against contingencies falls short of an amount equal to £S.25 per feddan under cotton, a maximum of 2% is transferred to the Reserve Fund to raise the Fund to an amount equal to £S.25 per feddan under cotton. When the latter amount is reached, the tenants receive also this 2%. Besides his share of the net profits of cotton, the tenant can dispose of all of his dura, lubia and vegetable crops as he sees fit.

Originally each tenant was given 40 feddans, ten of which had to be under cotton cultivation each year, the remaining units of ten under dura, lubia or fallow. Then it was realized that granting tenancies of 40 feddans was actually promoting a small group of rich gentlemen farmers with an income far above the average income of the other people of the country. In order to avoid absentee landlordism and provide the opportunity of greater income to a larger number of Sudanese, each tenant in the extension of the scheme now receives 15 feddans, five of which is under cotton in any one year. Consequently, between 1956/57 and 1960/61, while the crop areas increased by about 50%, the number of tenants doubled. In 1960/61 the total number of tenants was 63,000 besides whom there were 240,000 laborers. During the period 1952-1956 the tenants' gross share of the cotton crop averaged £S.206 per tenancy. In 1961, as a result of smaller tenancies, the average gross share of each tenant from cotton had dropped to £S.145.

While the tenant is given a wide scope of freedom in the cultivation of his land and as a result of his individual effort and initiative his income could increase or decrease, the Board engages in continuous research for the increase of yield as well as the improvement of the quality of the cotton. The result of the research is quickly transmitted to the tenants through the technical assistance of the Board's field supervisors and the Board has the authority to evict inefficient tenants or those who do not follow its recommendations. The Board's interest and efforts are limited only to the increase and improvement of the cotton crop; the tenants do not benefit from research or technical assistance so far as the production of other crops is concerned.

From its share of gross profits, the Board meets its general expenditures, transfers £S.75,000 to the Government for agricultural research and pays the Government an interest of 6% per annum on its capital of £S.4.0 million. Every year the Board submits its annual account to the Minister of Finance in which it also recommends the way any surplus or deficit should be dealt with, specifying in particular any payments by way of dividend on its capital to the Government, any transfers to or from its general reserves, and any amount to be carried forward as surplus to the following year. The Tenants' Reserve Fund serves as security for loans advanced to tenants by the Board and may be used to subsidize the tenants collectively in exceptionally bad years.

The Sudan Government's income from the Gezira Board constitutes a large percentage of the total government revenue. This varies from year to year, depending on the yield, quality and price of cotton. From 1957/58 to 1962/63 the share of the government varied as follows: £S.7.1 million, 1.3 million, 7.0 million, 7.6 million, and 5.9 million, each year constituting about 16, 4, 12, 13 and 10% of the total revenue, respectively. Besides the direct income accruing to the Government, the interest on the capital of the Board, dividends, the £S.75,000 for agricultural research and export duties paid by the Board, since import duties are the largest single source of revenue and cotton is the major earner of foreign exchange, the scheme makes a substantial contribution to total Government revenues indirectly.

Other Government Agricultural Undertakings

Some other government cotton-growing schemes are run along the same lines as the Gezira, although the proportionate division of the proceeds among the partners varies in accordance with the circumstances. In the White Nile Scheme the tenants, Board and Government share the gross proceeds, after the deduction of joint account expenses in the proportions of 40:20:40. In the Gash area the tenants get 50%, the Gash Board 28% and the government 22%. In the Tokar Delta, where yields are much less reliable, the tenants are assured 70%. Even the private pumping schemes are managed in a similar way. There, 50-60% of the proceeds go to the pump licensee, who is also responsible for the management of the scheme, and 40-50% to the tenants, with the joint account expenses allotted in the same proportions. The Government determines the selection of tenants even for private schemes and supervises the distribution of the proceeds. The Government itself receives the license fee, the land tax equal to 4% of the value of the crop and the business profits tax on the entrepreneur.

As compared with the Gezira scheme, all these other schemes are small. Government income from these other schemes excluding Gezira, for each year from 1957/58 to 1961/62 was £S. 528,000, 591,000, 838,000, 741,000 and 747,000.

The Sudan Gezira Board Gross Revenue Account
1960 Crop

1. <u>Gross Proceeds of Sales of Cotton and Cottonseed</u>			
a) Lint Cotton		£S. 23,565,070	
b) Scarto, etc.		239,379	
c) Cottonseed		3,344,797	
d) Miscellaneous		16,742	
			27,165,988
2. <u>Less: Joint Collective Charges and Expenses</u>			
a) Crop production expenses, i.e., fertilizer, sowing seed, spraying, fallow weedings, research, overseers' wages, pulling out cotton roots, etc.		2,020,037	
b) Seed cotton expenses, i.e., cotton sacks, handling cotton at stations, transport to ginning factories		544,487	
c) Ginning and baling		1,164,922	
d) Lint cotton expenses, i.e., handling at ginning factories, railway freight to Port Sudan, handling and storage at Port Sudan, marking and other expenses		726,304	
e) Cottonseed expenses, i.e., cottonseed bags, handling at ginning factories, railway freight to Port Sudan, handling and storage at Port Sudan		438,533	
f) Insurance and other expenses		309,060	
			5,203,343
3. <u>Gross Profit</u>			21,962,645
4. <u>Allocation in accordance with Schedule IV, Part I of the Gezira Scheme Act 1960</u>			
a) Sudan Government	42%	9,224,311	9,224,311
b) Tenants:			
Tenants' Collective Account	42%	9,224,311	
Tenants' Reserve Fund	2%	439,253	
Total	44%		9,663,564
c) Sudan Gezira Board	10%	2,196,264	2,196,264
d) Local Government Councils in the Scheme area	2%	439,253	439,253
e) Social Development Fund	2%	439,253	439,253
5. <u>Total</u>			21,962,645

Source: The Sudan Gezira Board, 11th Annual Report and Statement of Accounts, for the Year ended 30 June 1961.

THE SUDAN GEZIRA BOARD

Net Revenue Account
Year Ended 30th June 1961

The Sudan Gezira Board share of revenues according to Gezira Scheme Act of 1960 (10%)	2,196,264	
Interest received on investments and Bank balances	62,839	
Warehouse earnings	17,837	
Miscellaneous	4,395	
Surplus at 30th June 1960	<u>746,805</u>	
TOTAL		3,028,140
Directors' remuneration	7,260	
Staff salaries, wages and allowances	454,826	
Village agricultural overseers' wages (proportion)	21,840	
Contribution to provident Fund and provision for other post service benefits	23,480	
Motor vehicle expenses (including depreciation and replacement)	193,223	
Office expenses (including depreciation and replacement of office machinery)	37,688	
London Agency expenses	12,930	
Insurance	1,484	
Auditors' and Consultants' fees and expenses (proportion)	3,397	
Repair and upkeep of buildings and roads	56,517	
Electricity, water, sanitation, travelling and other expenses	39,134	
Annual provision for depreciation and replacement of general buildings	59,353	
Provision towards increased cost of replacing general buildings relating to previous year	84,753	
Other interests	4,259	
Interest at 6 per cent per annum at £5, 4 million of the Board's capital	240,000	
Dividend in respect of 1956/7 and 1958/9 payable to the Sudan Government	400,000	
Contributions to Sudan Government for research	75,000	
Transfer to General Reserve	346,805	
Surplus to be dealt with in accordance with Gezira Scheme Act 1960	<u>966,191</u>	
TOTAL		3,028,140

Source: The Sudan Gezira Board, 11th Annual Report and Statement of Accounts, for the Year ended 30 June 1961.