

CHAPTER 5

Priority Setting for Privatization of the Irrigation Schemes in Sudan

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INTRODUCTION

THE CHALLENGE IN the management of irrigation systems in Sudan as generally elsewhere is to know how to build the optimal techno-structure of the selected institution. The priority setting for privatization should consider this challenge and accompany the privatization needs with effective regulations that can offer solutions translatable into productive action plans.

No matter how long the privatization process will take, it is essential to establish an atmosphere of competition in the different sectors of the economy to allow more effective means and mechanisms to be pursued by the private initiative.

In Sudan, the turnover to the private sector is expected to proceed under a typology drawn by a high ministerial committee given a mandate under the 1990 Act for the disposition of public enterprises. This ministerial committee responds to the recommendations submitted by a higher technical committee assisted by sectoral committees.

This discussion paper on the priority setting for privatization of irrigation schemes in Sudan will present the arguments on the subject after giving an insight into the government responsibilities and management performance under the existing institutional setting, and after describing the corporate option, the setting, the formation and the legal status, the functional relationships, the rationale of the work plans, and the responses of the tenants.

In this discussion paper, the organizational issues and the staffing of various administrative and service units will be excluded as a reference subject in spite of the fact that overmanning is considered as one of the major weaknesses of the existing institutions.

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THE CORPORATE OPTION AND THE FUNCTIONAL RELATIONSHIPS

The Setting

The corporate option in the institutional setting of the irrigated schemes was based on political and socio-technical factors to attain the objectives of pooling managerial and technical resources under one autonomous body to make the best use of the huge investments provided by the government in the irrigated schemes.

The Formation and the Legal Status

At the beginning and before issuing warrants of establishment under the 1976 Corporations Act or similar private laws, the Ministry of Agriculture (MOA) used to second various technical expertise in the fields of extension, crop protection, horticulture and mechanization. Moreover, MOA used to nominate the top managerial posts. Together with the advice and assistance available on requests from the line departments of MOA, the service units of the corporations manned by the seconded staff offered the technical backing as envisaged in the work program. The day-to-day operation and the role of supervision and guidance to the tenants were left to the field staff who were recruited directly by the scheme management.

By 1976, the bylaws under the Corporations Act gave more autonomy to the corporations and all the resolutions regarding the management responsibilities are left to the members of the Board of Directors who are to be nominated by the Minister of Agriculture.

The Functional Relationships

Under the corporate option, the following functional relationships are to be realized:

- i. The continuation of the developmental efforts in the scheme areas that encourage promotion of the production activities like machinery and equipment, fuel supply depots, workshops, chemical stores, transportation and communication means and marketing facilities, etc.
- ii. The continuation of providing, at cost, the seeds (cotton, wheat, hybrid sorghum), fertilizers, herbicides, insecticides, sacks, land preparation services and cash credit for the labor requirements of the cotton crop.

- iii. The adherence to the rules and procedures of water management by maintaining the relationship between the Field Inspectors, *gaffirs* (the water guards) and *samads* (the contact farmers) as should be for the efficient operation of the minor canals.
- iv. The adherence to the production relationships that govern the financing of cotton crop activities with the assurance of adequate input supplies and services and later fair prices for the produce which are finally reflected in each tenant's individual account.
- v. The coordination with the other government agencies like the Ministry of Irrigation (MOI). The Sudan Cotton Company (SCC), and the private agencies like those involved in tractor-hire services and transportation.
- vi. With the provision of inputs, services and administrative guidance, at cost, commercialization has to be maintained through encouraging the tenants to adopt yield-increasing technology on their low productive cotton and non-cotton fields. Commercialization will strengthen the repayment capacity of the individual tenant.
- vii. Enforcement of the administrative ruling which is embodied in the Tenancy Agreement toward tenants who fail to operate their farms efficiently including eviction when the deteriorating outcome is attributed to mere negligence.

The Rationale of the Work Plans

The Agricultural Corporations normally work according to standard administrative procedures. They offer services on a "no profit - no loss" basis and are generally accountable to the Sectoral Ministry. The operating budget and the capital investment expenditure are determined through different channels including the Board of Directors, MOA and the Ministry of Finance and Economic Planning (MOFEP).

The Agricultural Corporations play the intermediary role between the government and the tenants and their responsibilities and functions are to serve the interests of the government. Once the government interventions are sized down their role will atomically come down.

The Responses of the Tenants

Against the background spelled out for the relationships under the existing institutional setting, the tenants and their leaders have to respond to the regimental statutes governing the cropping pattern in the scheme area. Their involvement in decision making is tailored to fit the role of mobilizer of labor resources.

A key variable shaping tenants' behavior in irrigation schemes is their reaction to the existing circumstances with the assumption that the situation will be worse with others than being with the government and, therefore, it is best to try to get as much as possible while it is still bad. Another variable is related to the behavior of the tenants' leaders who at any given time, are allowed to defend or promote the interests of the tenants through negotiations with the management of the corporation or its Board of Directors or the Ministers of Agriculture and Finance. They believe that, besides the gains they grasp in these negotiations, they are allowed to broaden their role in larger national issues i.e., more political influence.

GOVERNMENT RESPONSIBILITIES AND MANAGEMENT PERFORMANCE

In order to gain further insight into the irrigation systems, the responsibilities related to the government interventions are to be explained with the implications of management performance.

Policy Setting

The policy setting of the government interventions in the irrigation schemes give a definite role to the Corporation in decisions regarding rotations to the crop relations and cropping area targets. This would entail vesting responsibility with the scheme management for the identification of the cost components of the crops selected by the government for controlled financing through the Bank of Sudan or through the consortium of Commercial Banks. The selected crops are subject to controlled marketing and pricing arrangements, the responsibilities of which are delegated to various government agencies and committees. Crops like cotton and wheat satisfy this nature of captive crops which can easily be managed under the controlled system. They allow various deductions to be settled under the loan repayment arrangements including the service charges of both the Corporation and the Ministry of Irrigation.

A key variable in the system is the link between government responsibilities and cost-effectiveness. The internal regulations under the Corporations under the Corporation policy failed to produce satisfactory recovery standard and, hence, it was unable to meet its obligations. The recent accounting policy improvements introduced with the collaboration of the Advisory Unit for Agricultural Corporations (AUAC),

a newly established unit in MOA with World Bank assistance, and the variables under the new terms of financing from the commercial banks that restrict the size of the loan to the repayment capacity initiated more commitment to cost-effectiveness. Nevertheless, it is to be noted that some institutional factors still work against manageable cost-recovery mechanisms stemming from the service variabilities of both the Corporation and the Ministry of Irrigation.

Land Tenure and Production Relations

The rights and obligations of the partners in the irrigation systems, mainly of the scheme management and the tenants are defined in the Tenancy Agreements. They are designed to relate the tenancy or individual holding to performance standards against certain service variables.

In response to service variability due to financial pressures and increasing cropping diversification and intensification and the changes in the tenants' attitude toward ownership and the accompanying increase in the number of tenancies, both sides became less motivated to pursue enforcement of the administrative ruling embodied in the Tenancy Agreement.

The influence of economic incentives is manifested in the cotton production relationship which is reflected in the Individual Account System introduced by the beginning of the 1980s replacing the share cropping arrangements on the cotton proceeds.

A key variable in the relationship is to levy a land and water charge on each crop grown and harvested at field level which when valued at the ruling price will cover the ruling costs. The land and water charge is to be set annually in accordance with certain modalities agreed upon in the committee nominated by the Minister of Agriculture. Other variables of the relationship are related to the adequate delivery of input and services to the cotton crop and the announcement of a fair price calculated by the same committee for setting the land and water charges.

Beside the service variability, the tenants are sometimes subjected to unfair ruling costs and prices which will nullify the influence of economic incentives in the production relations and instead create a situation of indebtedness.

An analysis of a recent Gezira tenants' survey showed that the highly indebted tenants are characterized by lower holding size and lower land utilization capacity of which almost 50 percent under sorghum is destined mostly for home consumption (80 percent). On adequacy of services provided, 81 percent of the tenants claim that they are not satisfied with the Corporation's land preparation and 30 percent claim that they are unhappy with irrigation performance. Eighty nine percent of these consider cotton prices to be unfair and 96 percent think the same for wheat prices. On controlled credit arrangement, 94 percent claim that the cash advances for cotton are inadequate and 53 percent claim the same for credit arrangements for wheat.

The Service Provision Responsibilities

The government's responsibilities toward service provision should have been confined to its role in irrigation management covering necessarily the maintenance and rehabilitation components. Due to its commitment to satisfy certain national goals, the government is to stick to the role of setting objectives and priorities to the users. By doing so, it is shouldering other service provision responsibilities relevant to the magnitude of its intervention in the system operations. The cotton program in particular and to some extent the wheat program shape the magnitude of government involvement. The interventions are expressed either as direct involvement by the services units of the corporations in matters like inputs management and land preparation or contractual dealings with the private sector through the scheme management for some mechanization activities. In either case, the magnitude and the quality of the service are decided by the management and not by the tenants.

Starting from the controlled regulations of the government on foreign exchange requirements of the cotton and wheat production programs up to the government-controlled outlets of their marketing, the tenants are left to build their own demand according to the management's plans.

With respect to the irrigation services, the functional responsibilities are divided between the Irrigation Services Administration of MOI and the Agricultural Administrations of MOI and the Agricultural Administration of the Corporations. The first is to adjust the water control up to the minor canal head structures and the second has to monitor levels in the system from that point onwards. Moreover, MOI is entrusted with the role of maintaining the irrigation system at adequate levels with the understanding that the various levels of O&M are done timely and properly.

PRIORITY SETTING FOR PRIVATIZATION

Based on the current state of knowledge about the institutional development of the irrigation systems in Sudan, we will present the arguments for the priority setting and its conceptual framework.

Irrigation Assets and Services

The nature of irrigation water being a collective good distributed among different users, there is a tendency to impose some measure of government control. Therefore, it should be understood from the beginning that not all management functions and ownership are to be transferred to the private sector.

Here we have to differentiate between the controlled gravity flow irrigation infrastructure servicing large scheme areas like the Gezira (2.1 million feddans) New Halfa (330,000 feddans), and the electric or diesel-driven pump installations supporting smaller scheme areas ranging from less than 5,000 feddans to 50,000 in the Blue and White Nile areas up to 80,000 feddans (Suki Scheme). While the ownership and most of the irrigation services will be retained in the first category, both ownership and irrigation services in the second category could be transferred to the private sector. Therefore, the responsibilities and management practices now entrusted to MOI in Gezira, Rahad and New Halfa will continue under the existing institutional arrangements with the possibility of the turnover of O&M of the minor canals to the Tenant's Associations (now a disputed area between the Agricultural Corporation and MOI).

Regarding the responsibilities and management functions of MOI in the pump schemes, it is preferable to shift them to an irrigation water authority (could be the existing Agricultural Corporation), and after rehabilitation, the turnover of both the ownership of assets and the irrigation services to the private sector should be considered (preferably to an institutional alternative with tenants' participation). An alternative arrangement to the role of the Cooperation's field staff in both water indenting and monitoring of water management should be developed with the changes in the institutional arrangements. Moreover, the role of the collection of water charges should also be emphasized in any alternative.

The turnover should not hamper any constructive effort concerning improvement in water management means or irrigation design options envisaged in the various rehabilitation and modernization plans.

The Agricultural Corporation's Management Functions and Services

First, we have to recognize the relationship between the scale of the management functions and services and the government policy functions. Second, we have to differentiate between the patterns of changes in the management functions and those related to the service provision. Both will follow as a consequence to policy changes. Therefore, the priority setting here relies on a set of policy issues conducive to more participation of the tenants in decision making. While the tenants will continue building technical capabilities for some years to come, the Agricultural Corporation's Management functions are either to be retained as they are with the possibility of the turnover of its service units to the private sector or to be transformed into a new institution composed of technical advisory units directly responsible to MOA's line agencies. The Advisory Units will cover the fields or input management, agricultural mechanization,

training and extension and crop protection. Other fields of importance which are often neglected and need to be included in the management functions are environment and nutrition. Some executive functions will also be retained concerning land tenure regulations and other major policy functions preferably to be sponsored by a Production Council composed of representatives of the Technical Advisory Units and members of the Tenants' Associations nominated by them to interact in the management functions. This Council is to be chaired by a prominent experienced candidate nominated by the Ministry of Agriculture who besides holding the Chairmanship will coordinate the activities of the Advisory Units. This alternative setup will replace the Corporation. (A decision is already taken to dismantle four corporations). In both cases, the tenants will pay administrative charges (now termed land charge) to cover the costs incurred in performing the above functions. Outside the sphere of the above management functions, the door will be wide-open for the participation of the private sector. This will imply the following:

- i. Evaluation of the Corporations' service units as independent cost centers and either to be commercialized or disposed of to the private sector. This will include seed processing units, the agricultural machinery, the ginneries and transport and handling means like the Gezira Light Railway.
- ii. A due respect is to be given to the wide experience gained by the Gezira Tenants' Union through managing various enterprises like flour and textile mills and in the field of individual management of various tractor operations. Their recent initiative in mobilizing the resources of the farming community to build their own banking institution should also be appreciated and encouraged. This endeavor by the tenants should be accompanied by policies advocating more stable land tenure relationships, more conducive exchange rate regiments, more flexible foreign exchange regulations, more stable price setting and freedom to handle various contractual dealings, including the mortgage and sale of their holdings.
- iii. The role of the Agricultural Corporation as a credit channel and the role of the Sudan Cotton Company as a marketing channel may cease as far as the tenants are concerned because they will respond to the best terms offered and not necessarily through these channels. A transitional period will elapse before the conditions allow such shift in responsibilities. During this period it is preferable for the Corporation to work as a shopping window for inputs on a cash-and-carry basis and the Sudan Cotton Company to limit its role in the handling of cotton lint once channeled through their office.
- iv. Due consideration should also be given to the private sector participation, needs for institutional support from the government in the form of training farming and skill-building

capacities. This will minimize the risk of the turnover of some of the service provision functions to the private sector.

CONCLUDING REMARKS

The main discussion theme in this paper was meant to address the following:

First, documentation of government responsibilities in the irrigation systems of Sudan with slight indicative measurement of management performance. Second, distinction between the pattern of changes in management functions and the possibilities of turnover of service provision functions to the private sector. Third, definition of the policy elements that will lead to more involvement of the tenant in decision making. Fourth, presentation of the likely pattern of the priority setting for privatization of the irrigation schemes.

We have to admit that the management turnover in the irrigation systems in Sudan might bring more risky and complicated implications than experienced in other countries. That is due to the special characteristics of the systems that successfully imposed economies of scale in the operation of small-sized holdings.

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