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125

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# THE IMPACT OF PRIVATIZATION POLICY ON THE PERFORMANCE OF AGRICULTURAL GOVERNMENT SCHEMES IN RIVER NILE STATE, SUDAN

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## Abstract

*Purpose:* The purpose of this study is to evaluate the effect of privatization on the Agricultural sector.

*Design/methodology/approach:* A before/after approach was used to examine the changes in the general trend of crop areas, crop intensity, assets and employees.

*Findings:* (i) A remarkable deterioration of area planted by crops and crop intensities (ii) Imposing privatization led to an obvious reduction in the number of employees (iii) An increase in the debts of the agricultural schemes.

*Originality/value:* The approach and the resulting framework are original and valuable to evaluate privatization.

**Keywords:** Privatization, Evaluation, Agriculture, Indicators

**Paper type:** Research paper



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## INTRODUCTION

The privatization policy aimed to transfer control and management of public enterprises to the private sector in order to become more efficient and self-financed. The political and economic policy of privatization, broadly defined as the deliberate sale by a government of state-owned enterprises (SOEs) or assets to private economic agents, is now in use worldwide (Megginson and Netter, 2001). The privatization policy has been used by both developing and developed countries and involves different processes, which are designed eventually to transfer the control and management of public enterprises to the private sector. Moreover, different countries have used privatization to achieve different objectives, including downsizing the role of government, improving production efficiency, widening ownership and promoting employee ownership. In the developing countries, however, privatization of public enterprises is part of an economic reform programme, which was adopted in these countries under pressure from the World Bank (WB) and the International Monetary Fund (IMF) to cure the economic crises in these countries (Saad, 2007).

In Sudan, according to the recommendations of the 1992/93 National Salvation Program in its strategy conference of 1990, the government adopted a free market policy and called for freedom of ownership of production, goods and services. The Ministry of Finance and National Economics MFNE (2005) reported that the total return of privatized enterprises reached about SDD 33 milliard by 2005 (the privatization proceeds represent about 3% from the total receipts of government in 2005). The present government adopted the privatization policy in Sudan on a more systematic and pragmatic basis. However, there was a speedy process of disposal in the first phase of the programme (1992–97); large numbers of enterprises were privatized in the first two years during 1992–94. About half of the enterprises identified for privatization were transferred to stakeholders for free (Musa, 2002). The Auditor General (1993) reported that, the public treasury lost billions of SP as a result of under-valuation of public enterprises assets and failure to pay installments on time.

Agriculture, being the most important potential contributor to economic growth (36.5% of the GDP in 2009)(MFNE, 2010),

received considerable attention on privatization policy action, in order to increase economic efficiency and promote agricultural production to obtain positive effects on crop yield, farmer income, management and asset ownership. By 2005, 81 enterprises were privatized, of which 26% were agricultural schemes. Many of the privatized enterprises in the agricultural sector (9 out of 21) were disposed of by transferring their ownership to a governmental organization or regional governments for free (Technical Committee for the Disposition of Public Enterprise TCDPE, 2005).

The TCDPE revealed in its reports issued in 1997 and 2002 that the experience of privatization in the agricultural sector was impressed by a continuous failure, which could be attributed to: financial disability of farmers which had impeded their capability to cope with the requisites of the privatization policy implementation and incapacity of creation and invention accompanied with the behaviour of the new farmer's administration. The main criticism of the privatization programme inside Sudan relates to the transfer of enterprises to state governments and acquisition of enterprises by those considered to be politically connected (CEM, 2003).

After the implementation of the privatization programme, the ten government schemes in the River Nile State under the management of the Northern Agricultural Production Corporation (77 thousand feddans) were given to the respective farmer's unions. It was clear that those unions were not able to manage the schemes successfully; these schemes are facing financial, operational and managerial problems. The failure of the farmer's unions in managing the schemes and the fact that three schemes were prevented from operating urged the government to intervene. The intervention was made under the Agricultural Support and Development Fund (ASDF) in 2001, which carried out partial rehabilitation of selected schemes. Since the ASDF intervention was short-lived (three years), the schemes experienced drawbacks and the same problems of low area cultivation and high indebtedness returned.

Accordingly, the problem of this study is focused around the capacity of management in enabling farmers to carry out crop production activity efficiently. Therefore the study set forth assessment of performance of the agricultural government schemes (NAPC), in a pre- and post-privatization framework.

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## METHODOLOGY

### Data collection

Data are usually gathered by the researcher via surveys, experiments or observation methods (Diamantopoulos and Schlegelmilch, 1997). The administrators of the schemes were directly interviewed to obtain primary information about location, area, crops planted, number of employees, water rate and assets situation. Several documents, reports and other sources of information related to the study, particularly statistics, published by the Ministry of Agriculture, the Ministry of Finance, the Bank of Sudan, the Technical Committee for the Disposition of Public Enterprise and the British Overseas Development Administration (ODA) were also used as supplementary information, to serve the objectives of the study.

## ANALYTICAL TECHNIQUES

Descriptive statistical analysis was used to examine the changes in the general trend of crop areas, crop intensity, assets and employees of NAPC schemes in the period before and after privatization

## RESULTS AND DISCUSSION

A number of efficiency indicators have been used to measure the impact of privatization on the performance of NAPC schemes in River Nile State, including crop intensity.

### CROP INTENSITY

Crop intensity and area planted by different crops is a good expression of operational performance. Cropping intensity is the percentage of cropped area to the total area. As Table 1 shows, crop intensity in NAPC–River Nile State schemes declined from 75% before privatization to 28% (season 99/2000) during the farmer's union, and due to the reduction of budget allocations to the agricultural sector and the increase in the financial cost of agricultural crops related to the liberalization policy. However, after the formation of (ASDF), crop intensity increased to 61%. The areas planted by winter crops decreased by 70% (from 27000 feddans before privatization to 8000 feddans in 2000), due to financial

**Table I.** Crop intensity, winter and orchard areas planted (000Fed.) during the different managerial stages

Managerial stages	Crop intensity %	Winter area	Change %	Orchard area	Change %
The Northern* Agricultural Corporation	75	27	-	9	-
Farmer's unions	28	8	-70	6	-33
Agricultural support and Dev. fund	61	32	300	13	116

Source: Calculated from River Nile State Ministry of Agriculture, Animal Resource and Irrigation (RNSMAARI), Department of Agric. Schemes, 2007

\* Before privatization

shortages after privatization, and increased again to 32000 feddans in 2008 (300%). Orchard areas decreased by 33% (from 9000 feddans before privatization to 6000 feddans in 2000), then increased to 13000 feddans in 2008 (116%). The improvement of areas after 2000 was unlikely to be due to privatization, but rather on the interventions of the ASDF. The results of this study are also in conformity with the findings of Saad (2007), who investigated the effect of privatization on the Blue Nile Agricultural Corporation Schemes (BNACS), and reported that the average area planted by cotton during the ten years before privatization amounted to 32000 feddan, while after privatization, this average fell to 27000 feddan with a negative growth rate of 24%.

## EMPLOYEES

The period after privatization has witnessed a significant reduction in the number of employees and the absence of technicians who used to render managerial services and activities. Table 2 shows that the number of employees in privatized schemes decreased by 45% (from 697 before privatization to 383 after privatization). The number of agriculturalists declined by 87% (from 321 before privatization to 39 after privatization).

Although the analysis above shows an obvious reduction in the amount of labour, the study concludes that the problem of employees should

be treated under the general context of the performance and efficiency concept. We would expect a close relationship between the number of agriculturalists and cultivated feddans. According to the Sudanese Agriculturalist Assembly, the standard was 1000 fed per agriculturalist. As can be seen from Table 2, the net fed per agriculturalist increased by 724% after privatization in 2010. There is also a direct relationship between the number of agriculturalists and the number of tenants, as agriculturalists deal mostly with tenants. However, the tenants per agriculturalist increased by 723% after privatization in 2010. This would also indicate that staffing levels have not been set at the most efficient rates.

The total number of employees who had lost their jobs during the period 1992–2005 amounted to 32485. The agricultural sector was affected more than the other sectors, whereas 14310 employees represent about 44% from the total to lose their jobs after the implementation of the privatization programme (TCDPE, 2005).

### INDEBTEDNESS

The farmer's unions inherited old and exhausted infrastructures and assets (old pumps and interment channels). There were no additional assets added by schemes after privatization to the initial assets that were handed over to the farmer's unions, except those new pumps which were delivered by the Federal Ministry of Finance to some of these schemes. Contrariwise, the results stated that the assets were dispersed either directly or by abuse.

Description	1993 (before privatization)	2010 (after privatization)	Change %
Total employed	697	383	- 45
Agriculturalist	321	39	- 87
Net Fed per agriculturalist	224	1846	724
Tenants per agriculturalist	30	247	723

**Table 2.** Net Fed and tenants per agriculturalist on NAPC–River Nile state schemes before and after privatization

Source: Calculated from (RNSMAARI, Department of Agric. Schemes, 2010, ODA, Northern Region Irrigation Rehabilitation Project, Main Report, 1985 and NAPC, dissolve committee, 1993)

In the past, most of the irrigated schemes were financed by the central bank (Bank of Sudan), and granted by the Ministry of Finance and National Economy, but after privatization the farmer union's acquired bank loans and employed them to cultivate the dominant crops in the area (wheat, broad beans and other vegetables), so these schemes experienced financial deficit after privatization. These deficits stymied their performance and reduced the farmers' capability to settle dues, and consequently limited their access to new loans to meet rehabilitation expenses and expand the area planted by different crops. Although NAPC supported the GNP by more than Ls. 1.5 billion in the 1980s, the indebtedness of privatized schemes reached SDD 448 million in 2005 (RNSMAARI, 2006).

Although the government had invested about SDG 2.3 million during 1997–1999 to rehabilitate and maintain the assets of privatized schemes, the results show that the indebtedness of these schemes increased from US\$ 0.1 million before privatization in 1993 to US\$ 16 million after privatization in 2010, which hindered productive activities. The schemes increased the water charge in order that irrigation water supply could be improved and to meet its running costs (Table 3).

US \$ = Ls 215 (1993) (Bank of Sudan)

US \$ = SDG 2.4 (2010) (Bank of Sudan)

Crops	1993 (before privatization)		2010 (after privatization)		Change %
	Ls	US \$	SDG	US \$	
	Wheat	1650	7.7	151	
Alfalfa	13500	62.8	390	162.5	159
Broad beans	2025	9.4	157	65.4	596
Sorghum	1350	6.3	150	62.5	892
Onion	5475	25.5	260	108.3	325
Orchard	10500	48.8	456	190.0	289
Vegetables	2025	9.4	197	82.1	773

**Table 3.** Water rate on NAPC–River Nile state schemes before and after privatization

Source: Calculated from (RNSMAARI, Department of Agric. Schemes, 2010 and NAPC, dissolve committee, 1993)

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## CONCLUSION

The overall conclusion of the study is that transference of the assets or managerial responsibilities to the private sector or farmer's groups, especially in the agricultural pumping schemes, does not guarantee the desired efficiency unless it is supported by a technical consultation and means to ensure good utilization of resources.

**The impact of  
privatization  
policy on the  
performance  
of agricultural  
schemes**  
**132**

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## REFERENCES

- Auditor General (1993), "Section on privatization of public enterprise", Auditor General Chamber report on fiscal year 1992-93, Khartoum.
- Bank of Sudan (1993 and 2010), Foreign currency department reports (1993 and 2010).
- Country Economic Memorandum (CEM) (2003), Report No. 24620-SU Volume I: Main Text Country Economic Prepared Jointly by: Government of Sudan and Poverty Reduction and Economic Management - Africa Region - Document of the World Bank.
- Diamantopoulos, A. and Schlegelmilch, B. (1997), *Taking The Fear Out of Data Analysis: Step-by-Step Approach*, The Dryden Press.
- Ministry of Finance and National Economics MFNE (2010), The Annual Economic Report.
- Ministry of Finance and National Economics, MFNE (2005), The Annual Economic Report.
- Megginson, L. and Netter, M. (2001), "From State to Market: A Survey of Empirical Studies on Privatization". *Journal of Economic Literature*, Vol. 39, pp. 321-389.
- Musa, K.A. (2002), "Employee Ownership in the Privatization Programme of Sudan: Progress, Problems, and Prospects", *African Administrative Studies*, Vol. 59, pp. 57-73.
- National Economic Salvation Programme (1990), Khartoum-Sudan.
- Overseas Development Administration (ODA) (1985), Northern Region Irrigation Rehabilitation Project, Main Report, Vol. 1.
- River Nile State Ministry of Agriculture, Animal Resource and Irrigation (RNSMAARI), (2006), The Annual Report.
- (RNSMAARI), (2007), The Annual Report.

- (RNSMAARI), (2010), The Department of Agric Schemes Report.
- Saad, N.A. (2007), “Economics Analysis of Privatization Effect on the Agricultural Sector (Case Study of Blue Nile Corporation Schemes)”, PhD Thesis, Department of Agric- Economy, Faculty of Agriculture, University of Khartoum, Sudan.
- Technical Committee for Disposition of the Public Enterprises (1997), Evaluation of the Performance of Agricultural Sector Enterprises.
- Technical Committee for Disposition of the Public Enterprises (1993), NAPC Dissolve committee.
- Technical Committee for Disposition of the Public Enterprises (2005), Sudan Privatization (15 Years), Past, Present, Future.
- Technical Committee for Disposition of the Public Enterprises (2002), Evaluation of the Performance of Privatization.

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