The Capacity of Management in Enabling Farmers to Carry out Crop Production Activity Efficiently (A case study of Agricultural Government Schemes in River Nile State, Sudan)

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Abstract

Purpose: Evaluate the effect of privatization on Agricultural sector

Design/methodology/approach: 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 obvious reduction in the number of employees (iii)increase in the debts of the Agricultural schemes.

Originality -Value: The approach and the resulted framework are original and valuable to evaluate privatization.

Keywords: privatization, evaluation, agriculture, indicators

INTRODUCTION

Privatization policy aimed to transfer control and management of public enterprises to the private sector 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). Privatization policy has been used by the developing and developed countries, it means different things, which are designed eventually to transfer the control and management of public enterprises to the private sector. Moreover, different countries used privatization to achieve different objectives, including, down sizing the role of government, improving production efficiency, widening ownership and promoting employee ownership. In the developing countries, however privatization of public enterprises is a part of economic reform program, which was adopted in these countries under the pressure of the World Bank (WB) and the International Monetary Fund (IMF) to cure the economic crises in these countries (Saad, 2007).

In Sudan, According to recommendation of the 1992/93 National Salvation Program in its strategy conference 1990 the government adopted the free market policy calling for freedom of ownership of production goods and services. 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 program (1992-97); large numbers of enterprises were privatized in the first two years during 1992-94. About half of enterprises identified for privatization transferred to stakeholders for free (Musa, 2002). 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 the 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 the 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 transfer their ownership to a governmental organizations or regional governments for free (Technical Committee for the Disposition of Public Enterprise TCDPE, 2005).

(TCDPE) revealed in its reports issued in 1997 and 2002 – that the experience of privatization in the agriculture 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 privatization policy implementation and incapacity of creation and invention accompanied with the new farmer’s administrations behavior. The main criticism of the privatization program inside Sudan relates to the transfer of enterprises to state governments and acquisition of enterprises by those considered to politically connect (CEM, 2003).

After the implementation of privatization program. The ten government schemes in River Nile state under the management of the Northern Agricultural Production Corporation (77 thousand feddans) were given to the respective farmers 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 farmers unions in managing the schemes and the stopping of three schemes from operating urged the government to interfere. 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 term lived (three years), the schemes experienced drawback and the same problems of low area cultivation and high indebtedness came back.

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

**METHODOLOGY**

**Data collection**

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

**Analytical techniques**

The 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

**RESULT AND DISCUSSION**

A number of efficiency indicators have been used for measuring the impact of privatization on the performance of NAPC schemes in River Nile State include:

**Crop intensity**

Crop intensity and area planted by different crops is a good expression of operational performance. Cropping intensity is the percent of cropped area to the total area. As table (1) showed, crop intensity in NAPC – River Nile State schemes decline from 75 % before privatization to 28 % (season 99/2000) during farmers union, Due to the reduction of budget allocations to the agricultural sector and increase in financial cost of agricultural crops related to the liberalization policy, but after formation of (ASDF) crop intensity raised to 61 %. The areas planted by winter crops was decreased by 70% (from 27000 feddans before privatization to 8000 feddans in 2000), due to financial shortages after privatization and raised again to 32000 feddans in 2008 (300%). Orchard areas decreased by 33% (from 9000 feddans before privatization to 6000 feddans in 2000), then it increased to 13000 feddans in 2008 (116%). The improvement of areas after 2000 was unlikely to be due to privatization rather on the interventions of 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 32 thousands feddan, while this average after privatization amounted to 27 thousands feddan with a negative growth rate of 24 %.

Table 1: Crop intensity, winter and orchard areas planted (000Fed.) during the different managerial stages

<table>
<thead>
<tr>
<th>Managerial Stages</th>
<th>Crop intensity %</th>
<th>Winter Area</th>
<th>Change %</th>
<th>Orchard area</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Northern Agricultural Corporation</td>
<td>75</td>
<td>27</td>
<td>-</td>
<td>9</td>
<td>-</td>
</tr>
<tr>
<td>Farmer's unions</td>
<td>28</td>
<td>8</td>
<td>-70</td>
<td>6</td>
<td>-33</td>
</tr>
<tr>
<td>Agricultural Support and Dev. Fund</td>
<td>61</td>
<td>32</td>
<td>300</td>
<td>13</td>
<td>116</td>
</tr>
</tbody>
</table>

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

* Before privatization
Employees
The period after privatization has witnessed a significant reduction in the number of the employees’ and absence of technicians who used to render managerial services and activities. Table (2) showed that the number of the employees in privatized schemes was decreased by 45% (from 697 before privatization to 383 after privatization). The number of agriculturists declined by 87% (from 321 before privatization to 39 after privatization). Although the analysis above showed obvious reduction in the number of labor, but the study think 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 agriculturists and cultivated feddans. According to Sudanese agriculturist assembly the standard was 1000 fed per agriculturalist. As can be seen from the table (2) net fed per agriculturalist increased by 724% after privatization in 2010, also there are direct relationship between the number of agriculturists and number of tenants as agriculturists deal mostly with tenants. However, the tenants per agriculturist increased by 723% after privatization in 2010. This would also indicate that staffing levels have not been set at the most efficient levels.

The total 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 lost their jobs after the implementation of privatization program (TCDPE, 2005).

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

<table>
<thead>
<tr>
<th>Description</th>
<th>1993 (before privatization)</th>
<th>2010 (after privatization)</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Employed</td>
<td>697</td>
<td>383</td>
<td>- 45</td>
</tr>
<tr>
<td>Agriculturalist</td>
<td>321</td>
<td>39</td>
<td>- 87</td>
</tr>
<tr>
<td>Net Fed per Agriculturalist</td>
<td>224</td>
<td>1846</td>
<td>724</td>
</tr>
<tr>
<td>Tenants per Agriculturalist</td>
<td>30</td>
<td>247</td>
<td>723</td>
</tr>
</tbody>
</table>

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

Indebtedness
The farmer 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 farmers 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 abusing them.

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 unions get loans from banks and employ them to cultivate the dominant crops in the area (wheat, broad bean and vegetables), so, these schemes have experienced financial deficit after privatization that stumbled down their performance and reduced the farmers capability to settle dues, and consequently limited their access for 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 1980, the indebtedness of privatized schemes reach 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 result showed 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 had hindered its productive activities. The schemes increased water charge in order that irrigation water supply can be improved and to meet its running costs, (table (3)).

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

<table>
<thead>
<tr>
<th>Crops</th>
<th>1993 (before privatization)</th>
<th>2010 (after privatization)</th>
<th>Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ls</td>
<td>US $</td>
<td>SDG</td>
</tr>
<tr>
<td>Wheat</td>
<td>1650</td>
<td>7.7</td>
<td>151</td>
</tr>
<tr>
<td>Alfalfa</td>
<td>13500</td>
<td>62.8</td>
<td>390</td>
</tr>
<tr>
<td>Broad beans</td>
<td>2025</td>
<td>9.4</td>
<td>157</td>
</tr>
<tr>
<td>Sorghum</td>
<td>1350</td>
<td>6.3</td>
<td>150</td>
</tr>
<tr>
<td>Onion</td>
<td>5475</td>
<td>25.5</td>
<td>260</td>
</tr>
<tr>
<td>Orchard</td>
<td>10500</td>
<td>48.8</td>
<td>456</td>
</tr>
<tr>
<td>Vegetables</td>
<td>2025</td>
<td>9.4</td>
<td>197</td>
</tr>
</tbody>
</table>

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

US $ = Ls 215 (1993) (Bank of Sudan)
US $ = SDG 2.4 (2010) (Bank of Sudan)

The overall conclusion of the study stated that the transference of the assets or managerial responsibilities to the private sector or farmers groups, especially in the agricultural pumping schemes, do not grant alone the desired efficiency unless it is supported by a technical consultation and means to insure good utilization of resources.
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Technical Committee for Disposition of the Public Enterprises
