

Full Length Research Paper

Tractor hiring schemes in Nigeria: A case study of Federal Capital Territory (FCT)

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Tractor hiring schemes (THS) have approaches adopted by the different levels of Government in Nigeria in addition to some individuals and corporate bodies as a means of helping farmers to increase their farm holdings and food production. This laudable project is hereby appraised using the Federal Capital Territory Tractor hiring schemes (FCT THS) as a case study. Questionnaires were administered to the managers of the scheme and the beneficiary farmers within the territory. The current practices and the problems of the scheme are highlighted. From the study, ways of solving the problems and enhancing their performances are recommended.

Key words: Mechanization, farm, food, tractor hiring, Federal Capital Territory (FCT).

INTRODUCTION

About 70% of Nigerians estimated to be 120 million by the National Population Commission (NPC), (NPC, 1991) are engaged in food production and agricultural related businesses, but the country is still not self-sufficient in food production and supply. This resulted in the nation's continuous importation of food to meet the food requirement of her large and increasing population.

The non-engineering phases of agricultural technology such as better crop varieties, effective use of fertilizers and pesticides and improved cultural practices have contributed immensely towards the increase in food production in Nigeria. In spite of these advances, the main food producers in the country still depend to a large extent on the use of simple hand tools and implements (Anazodo, 1976).

The drudgery involved with this hand tools coupled with the 'neglect' of the agricultural sector by Governments since the oil boom era of the 1970s caused many farmers and prospective ones to desert farming in pursuit of oil and solid mineral resources. The result is the current low level of mechanisation.

Agricultural mechanization is one of the serious

problems inhibiting increased agricultural production and the threat of food insecurity in the country. The prices of agricultural produce are increasing, lack of food security with little or nothing for storage, farmers still depend on their local tools and human efforts, the increasing cost of purchasing and maintaining a tractor and the low profits from the huge investments in THS.

To reverse this trend, many crash programme such as Green Revolution, Operation Feed the Nation, Back to the Land, Agricultural Development Programme (ADP) and the establishment of River Basins (RB) were embarked upon which never solved our problems. Our strategies for self-sufficiency in food production should provide for immediate and long-term solution (Okosun et al., 2010).

The problem has potency to consume every other sphere of the nation's development if left un-addressed. NICA (2008) concluded that the only way for farmers in Nigeria and Africa as a continent to realize their production target is by going into mechanized farming. Only very few corporate farmers can afford to out rightly purchase tractors, while majority of individuals and group

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of farmers will require a flexible arrangement to enable them acquire tractors for their farming business, hence there is need for a lease package or THS.

These measures have been adopted over the years under the various State ADP, RB, Directorate of Food, Roads and Rural Infrastructure (DFRRI), State Ministries of Agriculture and Natural Resources (MANR), individuals, voluntary organizations, among others (Okosun et al., 2010). Also, a lot of advances recorded in the introduction of animal draught technology, which involves the use of animals like mules, oxen and camel for tillage operations were limited to tsetse fly-free zone of the Northern States (Odigboh, 1991). The long-term solution is the involvement of various professional and organizations involved in agricultural machinery development in Nigeria. Rowland (2004) reported that a grower hiring a 130 hp tractor for 12 months pays £930/month and with a three months deposit. The overall message with tractor hiring is to do the sums and make a decision based on fact rather than preference.

Paman et al. (2010) evaluated the potential of hand tractor hire business to make the owner's income for small rice farm mechanization in four regencies of Riau Province in Japan. They reported that approximately 68% of the total annual costs are variable costs, the largest single item is labour cost and most THS offering custom hire service are profitable with average 23.13 ha per annum. Also, the received profit would be higher with operating tractors themselves but the owners require 6.5 years to get back to the investment on the tractors and obtain about 10% of return on the investment. The tractor annual use should be increased to reduce costs or augment profit.

Jekayinfa et al. (2005) formulated repair equations which relate tractor repair cost as a percentage of initial purchase prices to cumulative hours of use of three commonly-used tractors in south-western Nigeria. The derived equations showed that the repair costs per hour increased with hours of use and the trend observed in the life cycle costing of the three common tractors gave the general picture of when to replace each of the tractors based on the strategies being adopted by the tractor owners. They concluded that a reduction in repair costs by careful operation and adequate maintenance could result in a significant reduction in tractor ownership costs. Various states THS have invested a lot of resources in procuring tractors and implements to alleviate the problems of mechanization of the small-medium scale farmers and to ensure food security.

Aboaba (1967) reported that a tractor-hiring firm was established in Agege as early as 1952. The government of northern Nigeria started a tractor hiring schemes (THS) in Kaduna by 1956 while THS was later started in the area that now constitutes Cross-River state in 1971 (Choudhung and Musa, 1984). After the civil war in eastern Nigeria, a farm mechanization unit was provided with the sum of £54,000.00 for the purchase of tractors and equipments that was hired out to farmers for land

cultivation (Nwosu, 1989).

Bida (1978) reported that tractor operators in Kaduna State contributed greatly to tractor breakdown by rough handling the tractors with the notion that no amount of money will come out of their pockets for repairs if anything goes wrong.

The Federal Government Nigeria (FGN) approved the implementation of Community cooperative tractor hiring scheme and the payment of ₦3,153,500,000.00 as 25% Federal Government's equity contribution to the participating companies under the community cooperative Tractor Hiring Scheme (Tractorisation Programme) through the Public Private Partnership Model to make available 1,950 units of various Tractors and Implements (FGN, 2008).

Odom (2010) disclosed that the Federal Capital Territory Administration (FCTA) has earmarked N71.2 million for the implementation of THS initiated by the Federal Government in the nation's capital city. The money was for the procurement of 64 tractors and other implements that would be sold to various FCT farmer groups in line with the Federal Government of Nigeria (FGN) mechanisation policy under private-sector led demand driven community cooperative of the public private partnership (PPP) initiative. The tractors are to generate an average of between ₦25, 000 to ₦30, 000 on daily basis to pay for these tractors over a period of three to four years.

The main objective of these FGN schemes was to raise the level of farm power availability from the present 30,000 units of tractors and implements accumulated from the time of independence to at least 100,000 units by the year 2015. It would effectively and drastically reduce drudgery of the farmers and as well as increase their farm size above 5ha, currently the average size per family. It is therefore crucial to appraise these schemes to identify associated management and technical problems, assess the impact of the scheme on the beneficiaries and arrive at appropriate suggestions and recommendations for better running and efficient management of such schemes.

This work is limited to the Federal Capital Territory (FCT) THS that is managed through the Ministry of Federal Capital Territory (MFCT) Department of Agriculture, Area Councils, National Directorate of Employment (NDE) and National Agency for Land Development (NALDA).

MATERIALS AND METHODS

The study was conducted using questionnaires. These questionnaires were developed and administered to personnel relevant to THS in the FCT. Each of the respondent was visited either in the office, on the farm or at home. The literate respondents filled the questionnaires while the illiterate ones were assisted in completing the questionnaires.

The questionnaires consisted of two Types A and B. Type A sought general information from tractor hiring services managers and tractor operators while Type B sought information about the

Table 1. Deduction from Type A Questionnaires (Managers).

| S/N | Information | Number of responses |
|-----|-----------------------------|---|
| 1 | Educational background | Engineer [21%], Non-Engineer [79%] |
| 2 | Schemes visited | Govt. [93%], Private [7%], NGO [0%] |
| 3 | Number of tractors | Govt. [98%], Private [2%], NGO [0%] |
| 4 | Make of tractors | Styre [55%], Massey Ferguson (MF) [12%], Fiat [15%], Zetto [12%], Others [6%] |
| 5 | Broken-down (serviceable) | Styre [50%], MF [14%], Fiat [18%], Zetto [18%], Others [0%] |
| 6 | Broken-down (unserviceable) | Styre [47%], MF [15%], Fiat [8%], Zetto [15%], Others [15%] |
| 7 | Age of tractors | 3yrs [12%], 5yrs [18%], 10yrs [23%], Above 10yrs [47%] |
| 8 | Routing maintenance | Daily [43%], Weekly[57%], Monthly[0%] |
| 9 | Servicing during season | Daily[0%], Weekly[14%], Monthly[86%] |
| 10 | Repairs in workshop | Yes [57%], No [43%] |
| 11 | Source of spare parts | Imported [0%], Locally [100%] |
| 12 | Cannibalized on broken-down | Yes [14%], No [86%] |
| 13 | Meet demand of farmer | Yes [0%], No [100%] |

farmers (beneficiaries), their views and the benefits of THS.

Type A was administered in FCT ADP, NALDA, Area Agricultural officers in charge of tractors in MFCT in the nine development areas of the FCT and the agricultural officer in-charge of THS in the area councils of FCT. Type B was administered at random to farmers who patronised the services of the THS in the FCT.

RESULTS AND DISCUSSION

The results from the questionnaires are summarized in Tables 1 and 2. Table 1 shows the responses from the managers of THS while Table 2 contains the responses of the farmers. From Tables 1 and 2, the questionnaires were administered to 14 Managers of tractors and 20 farmers. It was observed that the main operators of THS in FCT were Government agencies and individuals. NGOs, the NALDA and FCT ADP were not offering THS.

The Styre tractor constituting 53% of the tractors is the most widely used in FCT THS but 47% of the tractors used were over 10 years old. The maintenance practices and repairs were done centrally in a workshop operated by the MFCT Department of Agriculture.

It was observed that most farmers who engaged hired tractors for tillage paid between ₦3,000.00 and ₦4,000.00 per hectare for ploughing, harrowing or ridging instead of the official charge of ₦1,500.00 per hectare. Either the operator or the officials of the agency held the

difference. The tractor operators usually carry out the assessment of farmland size and many times the farmers are usually in agreement with the assessment coupled with the high charges. Even at these high charges, the demand of farmers that needed tractors was never met during the farming season.

The Agricultural Services Division of the MFCT Department of Agriculture is responsible for the operation of the THS. Only three out of the nine officers / managers of tractors have engineering background or training while others were trained in other fields of agriculture. At the Area Councils of the FCT, there are no engineers for proper management and maintenance of their tractors. This low level of the engineers affects the efficient management of the tractors and many times, decisions were left to the discretion of the tractor operators who are mostly illiterates or informally trained in tractor operations. The operators referred frequent breakdowns to the roadside mechanics. The consequences are that much time is lost during farming seasons, many tractors are grounded, some become unserviceable before their normal useful life span and in most cases high cost of maintenance and repairs.

Most disturbing is the lack of records on the tractors. Most of the information on frequency of breakdowns and age of the tractors are rough estimates. Apart from the lack of competent maintenance personnel, some of the tractors spare parts are not readily available in the local

Table 2. Deduction from Type B Questionnaires (Farmers).

| S/N | Information | Number of responses |
|-----|---------------------------------|--|
| 1 | Size of farm | ≤5ha [5%], 5-10ha [55%], >10ha [45%] |
| 2 | Mode of operation | Self [5%], Hired Labour [25%], Hired Tractor [10%], Self and Tractor [60%] |
| 3 | Need THS | Yes [95%], No [5%] |
| 4 | Get Tractor on request | Yes [5%], No [95%] |
| 5 | Amount paid/hectare | ₦1,500 [0%], ₦2,000 [0%], ₦3,000 [170%], ₦4,000 [30%] |
| 6 | Agree with farm size assessment | Yes [10%], No [90%] |

markets. Zetto tractors are the worst hit. A small part that could not be bought when required often resulted in permanent grounding of the tractors. Even when the parts are available, the costs are very exorbitant. A government department with so many tractors should arrange for their maintenance by bulk purchase of spare parts, which may be imported if need arises. With only 12% of the tractors of about 3 years in service, there is a clear indication of the danger of continuity of the scheme in the future.

The outcome of this investigation is affected by the followings problems. The work should be carried out in details in all the area councils, the FCT farmers' inability to acquire the needed farm equipment is due to their limited financial resources and a lot of time is lost while waiting for the services of the few available tractors. Also, the tractors are operated only during the five months of raining season while they remain idle under for shed for the remaining seven months which does not encourage huge investments in the scheme and all beneficiaries can only benefit from the funding and acquisition of the equipment only through their groups or cooperatives.

To improve the present state, the government and other agencies should have future plans for the provision of tractor services to the farmers at relatively lower repair and maintenance cost and also the governments should be committed to ensuring the sustainability of the schemes.

CONCLUSIONS AND RECOMMENDATIONS

The purpose of helping the farmers to increase their farm holdings through the use of tractors is not being achieved by the THS because of the high cost of its services to the farmers, excessive time loss due to repairs as a result of improper management and lack of competent personnel. It can therefore be inferred that the scheme is heading towards a complete collapse.

For the THS to successfully achieve its purpose, it is recommended that:

1. An engineering division should be created and made functional for the efficient management of the THS operations.
2. Provision of adequate fund for the bulk purchase of spare parts, purchase of new stocks of tractors whose parts are readily available locally.
3. The setting up of a monitoring mechanism to check and bring to book the sharp practices of the operators and some officers.
4. There is the need to keep proper records on the tractors and its activities for proper management decisions and efficiency.

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