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Public Sector Investment in Support of Agricultural Mechanization in Nigeria

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**Promoting Pro-Poor Opportunities through
Commodity and Service Markets
(PrOpCom)**

Synthesis/Main Report

**Public Sector Investments in Support of
Agricultural Mechanization in Nigeria**

PrOpCom: DFID-Funded Programme

**Plot 40, Mississippi Street, Maitama
Abuja, Nigeria**

27 July, 2009

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List of Abbreviations and Acronyms

DFID	Department of International Development (UK)
FASCOM	Kaduna State Farmers Supply Company
FGN	Federal Government of Nigeria
GDP	Gross Domestic Product
KADP	Kaduna State Agricultural Development Programme
KNARD	Kano State Agricultural and Rural Development Agency
KASCO	Kano State Agricultural Supply Company
NFRA	National Food Reserve Agency
OGADEP	Ogun State Agricultural Development Programme
OSAMCA	Ogun State Agricultural and Multi-Purpose Credit Agency
PrOpCom	Promoting Pro-Poor Opportunities through Commodity Service Markets

EXECUTIVE SUMMARY

PrOpCom commissioned a review of the state of investments by Government in recent years in support of Nigeria's Agricultural Mechanization sector and service market. The mission visited public agricultural institutions in Abuja, Kano and Abeokuta with the aim to assess the investment levels and trends, as well as to appreciate the nature of the Agricultural Mechanization activities supported. The mission also solicited and received inputs by Kaduna State Agricultural Development Programme.

Major findings from the field visits include the following:

- (a) Public sector support for Agricultural Mechanization and service markets, in terms of investment levels and consistency from year-to-year both at the federal and state levels, has thus far been weak and minimal relative to the enormity of the needs. Additionally, what investments have thus far been made have not been deliberately concerted or targeted at specific aspects/issues of Agricultural Mechanization;
- (b) The proportion of budgetary allocations in support of Agricultural Mechanization recurrent vs. capital costs is highly variable, both among implementing agencies and between years. However, overall, the recurrent-to-capital cost ratio is within a tolerable upper limit of 70%;
- (c) A more deliberate, structured public sector support, targeted at significantly enhancing the level of tractorisation throughout Nigeria and initiated by the present administration in 2008 in partnership with private sector agencies, is envisaged to be led by the private sector, enjoy a 40% Government subsidy on the cost of tractors to *community cooperative tractor hiring schemes*, with private sector tractor vendors providing 65% of the cost; and
- (d) At present neither the Federal Government of Nigeria, nor Kano or Ogun State have a policy/strategy framework on which to base the development, promotion and growth of sustained Agricultural Mechanization.

Among suggested areas of possible PrOpCom support include the organization, capacitation, skills enhancement and empowerment of community/producer groups, users of mechanization inputs, providers of support services and financial service providers. In addition, it is also recommended that PrOpCom partners with FGN (or the Governments of Kano and Ogun States) in the articulation of a policy/strategy on Agricultural Mechanization.

PUBLIC SECTOR INVESTMENTS IN SUPPORT OF
AGRICULTURAL MECHANIZATION IN NIGERIA

1. INTRODUCTION

Nigeria is endowed with a population of over 140 million people and an estimated 923,768km² of land. Only about 44% (34.7 million hectares) of the total agricultural land (80 million hectares) is presently cultivated. According to the National Food Security Programme of the Federal Government of Nigeria (FGN), the agricultural sector employs about 70% of the country's labour force. The sector contributes some 40% of the gross domestic product (GDP) and provides 88% of the non-oil earnings. Nigeria's agricultural GDP is contributed by the crop (85%), livestock (10%), fishery (4%) and forestry (1%) sub-sectors. It is dominated by subsistence and semi-subsistence households (cultivating not more than 3 ha of land, as well as market-oriented producers (cultivating between 3-2 ha/household). These groups of smallholder farmers/producers account for over 90% of the country's agricultural outputs and market surpluses. The land is cultivated mostly by hand and employing low, inadequate levels of agricultural technologies, techniques and inputs – largely under situations of poorly functioning and inefficient commodity and service markets.

The aspiration for Nigeria to develop and grow into one of the world's largest economies in the near future is unlikely to be realized, unless there is a significant and deliberate shift in favour of increased investments in the country's productive sectors, notably including agriculture. The level of Agricultural Mechanization in the country has remained low, with the hand-hoe dominating in the farming system. The situation is increasingly compounded by declining agricultural labour force caused by rural to urban migration, ageing farmer/producer population, as well as the HIV/AIDS and Malaria pandemics. In effect, that the hand-hoe and cutlass are unlikely to earn Nigeria a place at the table of the 20 largest economies is indisputable. In this light, it is imperative that we seek to modernize our agriculture, to enable farmers and other producers to, among others, apply mechanical technologies and power sources (especially human, animal, engine, solar and wind) to enhance labour productivity in the farm.

It is from the above context that Promoting Pro-Poor Opportunities through Commodity and Service Markets (PrOpCom) fielded a mission in early February 2009¹ to investigate and review the investment profiles, channels and trends in support of Agricultural Mechanization by FGN, as well as the governments of Kano and Ogun States. More specifically, the objectives were to investigate the facts and present the investment trends, capture the budgetary and expenditure data to the extent possible and provide a basis for comparing the performance of the various governments/institutions. The aim was not only as it relates to the development, promotion and modernization of agriculture, but also the assessment of the functionality, effectiveness and efficiency of the agricultural service market. The ultimate goal is to size up the potentiality of and opportunity for enhanced, unhindered private sector participation in the Agricultural Mechanization service market towards contributing to the reduction of human drudgery and the high cost of production. Additionally, the study would also serve to guide PrOpCom and DFID (UK) in policy discussions at all governance levels,

¹ *The assignment was undertaken by Joseph Y. Yayock, Consultant, over the period 29/01-10/03/2009; the field phase of the mission was greatly assisted by PrOpCom colleagues, Messrs Sani Sigagi and Abdullahi*

especially relating to future investments in support of Agricultural Mechanization interventions and related service markets.

2. APPROACH AND PROCESS

The field phase of the assignment commenced with a visit to the head office of the Federal Ministry of Agriculture and Water Resources (FMAWR), where budget information/data were sought from the directorates of Finance and Administration, Agriculture, as well as the Agricultural Engineering Services section of the Federal Department of Agriculture. At the National Food Reserve Agency (NFRA) of FMAWR, discussions were held with the directorate of International Collaboration/Partnership, Finance and Accounts, as well as the Agricultural Engineering Services.

Field visits were also made to undertaken to Kano City and Abeokuta, particularly being focal states for PrOpCom activities. In Kano, the mission interacted with key officials of the Ministry of Agriculture and Natural Resources, the directorates of Agricultural Services and Agricultural Engineering Services. At the Kano State Agricultural and Rural Development Agency (KNARDA), the mission met and interacted with the key management staff. This was also the case at the Ministry of Planning and Budget, Ministry of Local Government Affairs, as well as the Kano Agricultural Supply Company (KASCO). Similarly, in Abeokuta interactive sessions were held with the Bureau of Management and Budget in the Governor's Office, Ogun State Agricultural Development Programme (OGADEP), Agro-Services Corporation and the Agriculture and Multi-Purpose Credit Agency (OSAMCA).

The mission employed the intensive use of telephone and internet services during and after field visit – to solicit/plead for information/data, more and additional information, and/or to cross-check and confirm factual information and data – including with/from PrOpCom mission members.

The mission also made heavy use of telephone and internet services to solicit relevant information from the management of Kaduna State Agricultural Development Programme (KADP), as well as from a typical Agricultural Research Institution with a strong research agenda on Agricultural Mechanization (i.e., Institute for Agricultural Research, Samaru) and the National Centre for Agricultural Mechanization (NCAM), Ilorin. The logic is that the promotion of Agricultural Mechanization and its service market is not necessarily limited to the Agricultural Development (ADP) system and investment interventions.

3. OUTCOMES

Unquestionably, the most striking impression gained during the field phase of the mission relates to the widely known politicization of the public service system, be it in Abuja, Kano or Abeokuta. For one thing, it was evident that most technical officials interacted with are clear, directional and knowledgeable about issues and priorities of Agricultural Mechanization and how to reach the bulk of producers. For another, the institutional focus and priorities are so much in pursuit of what the political leadership wants and desires that the majority of the technical/professional officials are idle and have seemingly lost the spirit of initiative and commitment. The politicization and weakening of the public service system aside, it was also

evident that record-keeping continues to be generally poor and inadequate.² Some officials met were reluctant to share available public information, a few vehemently. In one instance, the mission was unable to obtain any documented records, in spite the warm reception, familiarity with several of the officials and passionate pleas during and after the visits.

Attached to this Synthesis/Main Report as an Annexure is the summary of the state of affairs as assessed during the visits to and interactions with relevant officials in Abuja, Kano and Abeokuta. Also included in the Annexure is the contribution on KADP, compiled from information and data kindly supplied electronically by its General Manager. The list of key people met and interacted with, together with their phone contacts, is attached as an Appendix.

3.2. Institutional Support for Agricultural Mechanization

The assumption, which is implicit in the background information and scope of work, to the effect that support to/for Agricultural Mechanization is through ADPs is not entirely correct. Prior to the termination of World Bank funding support, the ADP system and its respective commercial arms were, indeed, the primary recipients of public/government finances in support of Agricultural Mechanization. However, since then public sector support is channeled through varying institutions and agencies, depending on the state. For instance, while KNARDA focuses on small- scale, smallholder farmers and animal traction-level farm mechanization in Kano, the Ministry of Agriculture and Natural Resources exercises responsibility for tractor-based operations and service market, involving mostly medium to large operators in the state. In Ogun, the division of labour is similar, involving OGADEP and the State Agro-Service Corporation -- a semi-autonomous commercial outfit. The same is true about Kaduna, between KADP and the Ministry of Agriculture.

It is noteworthy that in both Kano and Kaduna what used to be virile, viable commercial arms of the ADP system in the states (KASCO and Farmers Supply Company, FASCOM, respectively) presently play no role in support of Agricultural Mechanization and service market. Basically, these various institutions are state-owned and state-run. Put in other words, FGN does not directly invest in these state institutions, except in terms of counterpart fund contribution in support of specific/specified investment projects/programmes. The only intervention financed directly and at 100% by FGN in recent times under the auspices of the ADP system is the first phase of the National Food Security Programme. Other key public institutions through which Government also promotes the development of Agricultural Mechanization and service market include the national agricultural research and training/educational systems, including NCAM.

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Mechanization and the efficiency of the service market relates to the generally poor organization, low capacity and inadequate empowerment of farmers, farmer groups and cooperatives, as well as other stakeholders: private sector investors, equipment dealers, as well as retailers of equipment and machinery. The point is that poorly and inadequately organized, capacitated, informed and empowered beneficiaries and other players in the commodity chain are invariably constrained from optimal utilization of agricultural inputs and improved technologies, including Agricultural Mechanization.

3.3. Investments in Support of Agricultural Mechanization

² *The case of Ogun State Bureau of Management and Budget is an exemplary positive exception - where approved annual budgets are compiled, printed, produced in book-form and stocked ready for sale to interested individuals and the general public.*

In nominal terms, public sector budgetary allocations, through the relevant Government ministries and agencies in support of Agricultural Mechanization initiatives, has generally been on the increase as evidenced in the following approved capital allocations for Ogun, Kano and Kaduna States (N million):

Year	OGADEP	Kano Tractor Hire	Kano Animal Traction	Kaduna MOA	KADP
2009	129.4	75.0	40.0	-	-
2008	70.0	230.0	46.0	3,981.3	642.3
2007	100.0	5.0	60.0	1,603.9	599.3
2006	23.0	-	50.0	1,332.0	1,780.0
2005	15.0	30.0	35.0	1,160.8	1,603.9
2004	21.0	-	185.0	561.0	781.4

However, taking into account the obvious differences in the exchange rate of the Naira over the 5-year period vis-à-vis its purchasing power, the variance in the capital allocation is likely to be minimal. Perhaps what is more inexplicably striking is the apparent lack of coherence and consistency in the allocations from one year to the next. As already inferred, the extent of FGN contribution to such state public institutions is limited to the provision of counterpart funds in support of specific projects/programmes.

The striking difference in agro-ecology between Kano and Ogun must necessarily have direct bearing to the nature and approach to, as well as the investment level in support of Agricultural Mechanization and the markets servicing the respective states/regions. In both cases, significantly more resources are spent on the purchase and refurbishing of tractors, with inadequate consideration about their make and capacity vis-à-vis the vegetation, soils and the general terrain in which they would eventually operate. In contrast, significantly less investments are made in the acquisition of heavy equipment for the opening of new land, especially in Ogun and other areas of south-western Nigeria. Similarly, the level of investments on animal traction technology is clearly half-hearted in being able to make significant impact in the modernization of farming operation in the massive expanse of the Savanna region – as shown hereunder for Kano State (N million):

	Approved	Actual	Approved	Actual
2009	75.0	-	40.0	-
2008	230.0	229.9	46.0	45.9
2007	5.0	5.5	60.0	-
2006	-	5.5	50.0	50.0
2005	30.0	21.6	35.0	35.0
2004	-	45.0	185.0	-

An analysis of the proportion of Ogun State approved annual budget earmarked for recurrent vis-à-vis capital expenses shows great variability between the different implementing agencies. The same is true about actual expenditures as shown hereunder for Ogun State (%):

Agency/Factor	2008	2007	2006	2005	2004
<u>Ministry of Agriculture</u>					
Approved Budget	51.1	67.1	48.8	29.9	37.3
Actual Expenditure	-	94.7	66.9	53.9	41.2
<u>Agro-Service Corporation (General)</u>					
Approved Budget	84.3	76.9	74.6	54.8	40.9
	-	92.9	82.1	80.4	42.7

Actual Expenditure					
<u>Agro-Service Corporation</u> (Engineering)	-	81.3	77.2	88.8	57.8
Approved Budget	-	94.1	94.4	91.6	73.3
Actual Expenditure					
<u>OGA DEP</u>					
Approved Budget	72.4	60.4	72.2	80.4	72.4
Actual Expenditure	-	75.3	42.8	-	-
<u>OSAMCA</u>					
Approved Budget	7.6	71.5	59.0	64.0	2.1
Actual Expenditure	-	-	75.2	60.0	-

However, with the possible exception of actual expenditures in respect of the Agricultural Engineering Services unit of Agro-Services Corporation, the overall ratios of recurrent vs. capital allocation and expenditures are mostly within a tolerable upper limit of 70%.

3.4. Government Patronage and Service Markets

The procurement, supply and distribution/sale of agricultural equipment and machinery, on loan to farmers or on hire service basis, continue to be thriving businesses. What has changed is the institutional bifurcation and shift of responsibilities, as ADPs are no longer the bee hives they used to be as service markets for farm inputs, including for Agricultural Mechanization. However, the renewed effort by the present Federal Administration to enhance the public-private sector partnership and for Government to withdraw from the Agricultural Mechanization, even under a regime of subsidy provision, would likely further enhance the functionality and efficiency of the service market. Indeed, this would be the case if the principle of public-private partnership is broadly applied to also cover the full range of Agricultural Mechanization technologies, techniques and options.

3.5. The Subsidy Issue

The need for and logic of sustained Government support in the promotion of Agricultural Mechanization and service market (as well as ready access to other essential farm inputs) has never been in doubt, especially considering the preponderance of small-scale, smallholder producers and market players, vis-à-vis the generally harsh economic environment. However, the nagging concern has always been and continues to be about how really pro-poor public spending on Agricultural Mechanization is, and which groups in the population have been benefiting and stand to benefit most from Government-financed Agricultural Mechanization subsidy support. Under the much-talked-about private sector-led *community cooperative tractor hiring scheme* initiated by the present Federal Administration, Government would contribute 40% subsidy on the cost of tractors (25% by FGN and 15% by State Governments), with private sector operators providing the balance of 60%. The intention is to procure a total of 10,000 tractors and implements during the 3-year period 2008-11. With the planned procurement of 3,525 additional/new tractors and implements in 2009, the cost to FGN in subsidy (25%) is estimated at N6.5 billion. As earlier inferred, such huge level of expenditure is a welcome temporary measure, so long as the strategy is to support viable private sector-led Agricultural Mechanization markets. However, it is noted that no similar deliberate intervention is planned for animal-powered technologies, post-harvest operations and the processing of agricultural commodities.

4. CONCLUSION/RECOMMENDATIONS

From the above analysis and detailed visit report, it is evident that the use of mechanical technologies/techniques and power sources to enhance labour productivity and operational efficiency in the agricultural value chain is, to say the least, low and grossly inadequate. From the sample public institutions investigated, support to the Agricultural Mechanization continuum (from production, post harvest handling, processing for value addition) is minimal and lacks consistency and coherence in policies/strategies, programmes and resource allocation. In addition, the operating environment for the development, promotion and growth of Agricultural Mechanization, as well as its service market as crucial inputs into the agricultural production process, are fraught with financial and environment risks, thus resulting in low participation of private sector operators.

The drudgery of labour, high cost of agricultural production arising from high labour wages, as well as the share of labour cost in the total production system are among key factors militating against increased farm productivity, production and profitability. It is generally accepted that Nigeria cannot develop and grow into one of the 20 largest global economies without modernizing its agriculture and exploiting the country's abundant land resources. Concerted support towards mechanizing the country's agriculture is, therefore, a worthy area of investment, to enhance labour productivity and profitability.

Among recommended aspects for possible ProOpCom/DFID support include the following:

- (a) Community/Producer Groups** Enhance the sensitization, orientation, capacity and empowerment levels of farmers, farmer groups/associations/cooperatives, as well as other community-based stakeholders - towards increasing their awareness on Agricultural Mechanization technology options and enabling members to more effectively pursue their own development;
- (b) Users of Mechanization Inputs** Enhance the technical knowledge, know-how and skills level of farmers and other users of mechanization inputs. Many animal traction users and tractor owners do not have adequate agri-business knowledge, business acumen, thus leading to high operational costs. In most cases, operators of and mechanics for animal traction equipment, tractors and post-harvest machinery are not well trained, resulting in poor quality work and expensive breakdown of machines/equipment;
- (c) Support Services** Strengthen support service provision in terms of training and other capacity building in technical matters, business, marketing and finance – especially involving equipment/machinery manufacturers and fabricators, artisans and mechanics, dealers, hire service operators, as well as demand-driven research and development;
- (d) Sustainable Finances Services** Enhance access to sustainable financial services and the flow of medium-term credit to mechanization and capacity-building for financial service providers, involving not only commercial banks, but also particularly micro-finance institutions and credit associations;
- (e) Policy/Strategy Framework** While the planned private sector-led *community cooperative tractor hiring scheme*, recently initiated by Government, has considerable merit, the absence of a widely shared policy/strategy framework involving key

stakeholders in Agricultural Mechanization and service market stands the risk of negatively impacting on the successful and sustained operation of the scheme. Consequently, it is recommended that PrOpCom/DFID considers partnering with FGN for the articulation of a policy/strategy framework towards operationalising the spirit and substance of the public–private partnership – and possibly extending, expanding the principle to also cater for the use of animal traction and post-harvest technologies/ techniques. In the event of non or slow response by FGN, it is further recommended that PrOpCom shifts its attention and focus in favour of assisting Kano and Ogun to develop state policy/strategy framework on Agricultural Mechanization.

5. NEXT STEPS

Even though the focus is primarily on tractorization, the fact that the planned private sector-led *community cooperative tractor hiring scheme* has been initiated by Government and is presently accorded high priority constitutes an opportunity for possible involvement by PrOpCom/DFID and other development agencies/programmes in support of the process. It is suggested that PrOpCom initiates discussion with Abuja for the purpose of partnering with Government, both at the federal and state levels, to contribute in preparing the ground, capacitating and empowering the key stakeholders for their effective participation in the scheme.

At the state level, the desire for real and cogent progress in the mechanization of agriculture is unquestionable, but the operating environment is presently too *ad hoc* and fraught with uncertainty, confusion and minimal commitment for the common good. The initiation of dialogue with Kano and Ogun States is likely to assist not only in bringing about improvement in institutional arrangement and activities in support of Agricultural Mechanization, but also improvement in the operating environment – notably including the level of public sector investment, greater coherence in investments from year-to-year, as well as the possible articulation of state Agricultural Mechanization policies/strategies.

Annexure: Public Sector Investment in Support of Agricultural Mechanization in Nigeria -- Detailed Report of Field Visits

1. INTRODUCTION

As part of a PrOpCom assignment to investigate public sector investments in support of Agricultural Mechanization in Nigeria, field visits were undertaken covering the Federal Capital Territory (Abuja), as well as Kano, Ogun and Kaduna State, between 03-26/02/2009. The main objective was to enable as accurate a determination as possible of the extent and levels of investments by federal and state public agencies involved in the development and promotion of Agricultural Mechanization in the country.

2. FEDERAL AGENCIES, ABUJA

A one-person mission³ devoted the 3-day period 03-05/02/2009 in Abuja to meet and interact with relevant officials of the directorates of Finance and Administration, Agriculture, Agricultural Engineering Services section, as well as the National Food Reserve Agency (NFRA) of the Federal Ministry of Agriculture and Water Development (FMAWR). The list of key individuals met and interacted with is attached as an Appendix to the Synthesis/Main Report.

2.1. Federal Ministry of Agriculture and Water Resources

Having been accorded very warm reception at the head office of FMAWR, it was rather disappointing that the mission could not gain access to approved recurrent and capital budget allocations and expenditures for departments and agencies involved with Agricultural Mechanization. It was apparent that the Budget Section suffers from serious challenges of record-keeping. This is similarly the case with the Departments of Agriculture and its Agricultural Engineering Services section. Indeed, in the case of the latter, it was apparent that the unit is completely out of loop about current happenings in the Ministry. As shown in Table 2.1, the only information sourced from the Budget Section are approved and released global capital budget allocations to the Ministry – except in 2008 for which the mission was able to obtain the full range of detailed project-by-project expenditure breakdown (Table 2.2).

Table 2.1: FMAWR Approved and Actual Global Capital Budget, 2002-08 (N million)

Year	Approved	Actual	Performance (%)
2008	77.436	75.088	96.9
2007	17.633	17.633	100.0
2006	15.397	15.397	100.0
2005	7.538	7.538	100.0
2004	10.550	10.550	100.0
2003	10.602	6.171	58.2
2002	12.603	3.580	28.4

However, from an intensive interaction with the Head of Agricultural Engineering Services section of the Federal Department of Agriculture (who has in-depth and impressive knowledge relating to the historical development of Agricultural Mechanization activities in Nigeria), it was understood that the agricultural development system established throughout the country has never really sufficiently addressed the mechanization of Nigeria's agriculture.

³ *The 3-day visits to the Ministry of Agriculture and Water Resources and its agencies in Abuja was undertaken by Joseph Y. Yayock (Consultant).*

The focus has been and continues to be largely on engine-powered technologies (tractorisation), as opposed to the use of animal or solar powered sources. Typically, FGN and State Governments procure the tractors which are either sold to farmers at subsidized costs, after a 10-20% down payment, or are operated as tractor hire schemes. Repayment rates for the tractors or bank loans have similarly been typically low. Other challenges of tractorization also include high costs and affordability, appropriateness of the make/model and operational capacity, as well as spare parts and facilities for routine maintenance. Support for animal traction similarly suffers from the challenge of repayment.

Table 2.2: 2008 Approved and Actual Capital Budget Allocations to Key Federal

Agricultural Agencies/Initiatives for the Development and Growth of Agricultural Mechanization in Nigeria (N million)

Project	Approved	Actual	Performance (%)
Agric Mech and machinery Operator Training	15.0	15.0	100.0
Animal Traction and Hand tool Technology	10.0	10.0	100.0
Cooperative and Community Tractor Service - in 200 centers under public-private partnerships	3,359.0	3,359.0	100.0
-National Centre for Agric Mechanization, Ilorin -Fabrication/multiplication of agric equipment/machines	102.3	102.3	100.0
National Cereals Research Institute, Badegi -Fabrication of Agric processing machines	337.511	337.511	100.0
Institute for Agric Research, Samaru -Research into agric mechanization	288.999	288.999	100.0

The number of functional tractors in Nigeria today is estimated at not more than 30,000 – as against 2.35million tractors required, if the tractor-farmer ratio and tractor density are to be enhanced⁴. It is from this perspective that the present Federal Administration intends to make available 10,000 additional tractors and implements during the 3-year period 2008-11, through a private sector-led *community cooperative tractor hiring scheme* (Table 2.2). Under the arrangement, private sector agencies would, in partnership with Government, procure the tractors and sell same to trained and capacitated tractor hiring cooperative groups at 60% of the cost, with the balance of 40% contributed by FGN (25%) and State Governments (15%). The private sector operators would be responsible for establishing and running functional workshops and service centers, with provision of spare parts. The repayment period for the cost of tractors is three years. It is understood that 10 different models of tractors and implements, dully certified by NCAM, are to be procured -- with a horsepower range between 55-75 hp and a unit price of N5.3-7.4million. For 2008, the 1,950 tractors ordered in November 2008 were yet to be supplied as at March 2009. The 940 tractors recently advertised by NFRA in January 2009 were among those ordered in 2007, supplied

⁴ The total number of tractors (2.3million) ideally required by Nigeria was estimated in a letter dated 28/11/2009 by Hon. Minister of FMAWR (Dr. Sayyadi Abba Ruma) to all 36 State Governors and FCT Minister relating to the planned private-sector-led community cooperative tractor hiring scheme.

and were in the process of distribution/allocation to beneficiary states as at the time of drafting this report in March 2009.

Specific to FGN equity participation under the public-private partnership tractor service scheme, it is noted that the 25% subsidy would entail an estimated N6.5 billion for the planned 3,525 tractors and implements in 2009. Other related issues of note include the observations that:

- (a) All the tractors, implements and spare parts are to be imported, more so since both the Styres and Fiat tractor companies in Bauchi and Kano, respectively, are presently not operational;
- (b) There is dire need to streamline the tractor mix in the country; the suggested procurement of 10 different models of tractors and implements in 2009 is considered on the high side;
- (c) For effectiveness, efficiency and longevity, it is preferred that a tractor should not be in operation for more than 150 days in a year – an assumption that has implication in the 3-year tractor loan repayment period;
- (d) Several of the commercial banks with which the private sector tractor vendors were negotiating loan facilities as at March 2009 for the purchase of tractors had continued to make demands on FGN for more and greater guarantees to cover their risks, to enable them charge normal commercial interest rates, as well as to demand computation of cost-benefit analysis as a condition for all loans; and
- (e) Presently there is the absence of a policy/strategy framework covering the broad range of Agricultural Mechanization, both at the national and state levels.

2.2. National Food Revenue Agency

With the restructuring of FMAWR in late 2007, the enlarged Projects Coordinating Unit, which was transformed into NFRA is mandated to focus its activities on programme development and implementation, including the promotion of Agricultural Mechanization. This infers that the existing five technical departments of the Ministry (Agriculture, Livestock Fisheries, Dam/Irrigation/Drainage and Water Supply/Quality Control/Inspectorate) are to concern themselves primarily with issues of policy and planning. Prior to the establishment of NFRA, the Agricultural Engineering Services section/unit of the Federal Department of Agriculture had direct responsibility for the promotion of Agricultural Mechanization – a function presently exercised the Agricultural Engineering Services of NFRA.

Among initial actions and activities which are planned to enhance the take-off of the *community cooperative tractor hiring scheme* include the following:

- (a) Sensitization of key stakeholders – drawn from the federal, states and local governments and comprised of farmers, farmer groups and cooperatives, tractor vendors, banks, tractor hiring agencies, equipment fabricators and the general public – through workshops, as well as print and electronic media;
- (b) Identification, organization, orientation and re-orientation, skills development and related training of cooperative unions and existing tractor hiring agencies to capacitate and empower them – in sustainable enterprise and business development, management of tractors and tractor service delivery;

- (c) Distribution of the existing 2,890 tractors procured in 2007 (940 No.) and 2008 (1,950 No.) to capacitated cooperative hiring groups/agencies in all the State and Local Governments; and
- (d) Training and re-training of tractor operators and mechanics.

3. KANO STATE

The visit to Kano City was undertaken from 16-19/02/2009.⁵ Meetings were held with key officials of Ministry of Agriculture and Natural Resources, Ministry of Planning and Budget, Kano State Agricultural and Rural Development Authority (KNARDA) and Kano Agricultural Supply Company (KASCO). While the Ministry of Agriculture and Natural Resources, through its Agricultural Engineering Services Department, focuses its Agricultural Mechanization interventions in support of medium to large-scale farmers, KNARDA is charged with supporting smallholder operators, in addition to its role in organizing, educating and guiding farmers to modernize and improve their farming methods.

3.1. Kano State Ministry of Planning and Budget

As a result of prior electronic mail notification about the mission, as well as prior contact on 11/02/2009 in Abuja during a PrOpCom-sponsored workshop on rice policy, the interaction of the mission team with officials of the Ministry of Planning and Budget was at the highest level, involving the Hon. Commissioner, Permanent Secretary, as well as the Directors of Planning and Budget. The mission was provided with a comprehensive set of approved capital budgets covering the period 2002-08, as well as the proposed figures for 2009. As evident in Table 3.1, the Ministry of Agriculture and Natural Resources is largely concerned with the provision, on hire service arrangement, of tractors and heavy farm equipment for land preparation, land clearing and land grading, as well as crop harvesters and post-harvest processing and storage equipment (threshers, seed cleaners, oil mills, flour mills and storage bins). On its part, the focus of KNARDA is on enhancing the use of animal traction, especially by smallholder farmers, the typical animal traction package comprises a pair of work bulls and accompanying farm implements (notably a ridger and an ox cart).

Table 3.1: Kano State Approved and Actual Capital Budgets in Support of Agricultural Mechanization, 2003-09 (N million)

Year	Service	Approved	Actual	Performance (%)	Activity
					4
2009	Tractor hire service	75.0	-	-	Procure 625 tractors, 10 heavy plants, 1,625 animal traction packages, 7 combine harvesters, 87 multi-crop threshers, post-harvest processing equipment, 250 lot storage bins, 18 seed cleaning and dressing machines, 62 50t oil mills and 62 25t flour mills.
	Animal traction loan scheme	40.0	-	-	Provision of 500 animal traction packages for loan to smaller holder farmer groups.
2008	Tractor hire service	230.0	229.9	99.9	Procure 40 tractors and implements, 3 cat graders, rehabilitate existing heavy plants.

⁵ *The 3-day mission to Kano was undertaken by Joseph Y. Yayock (Consultant) and greatly assisted by PrOpCom colleagues, Messrs Sani Sigagi and Abdullahi Umar.*

	Animal traction loan scheme	46.0	45.9	99.8	Provision 500 animal traction packages for loan to smallholder farmer groups
2007	Tractor hire service	5.0	5.5	110.0	Procure spare parts for rehabilitation of 10 tractors and purchase 5 disc harrows.
	Animal traction loan scheme	60.0	-	-	Provision 500 animal traction packages on loan to farmers
2006	Tractor hire service	-	5.5	-	-
	Animal traction loan scheme	50.0	50.0	100	Loan packages to 500 farmer groups (pairs of work bulls or implements) for loan to smallholder farmer groups.
2005	Tractor hire Service	30.0	21.6	72.0	Purchase 7 disc harrows and 7 disc ridgers; refurbish 20 tractors, 15 disc harrows, 1 bulldozer and 1 combine harvester.
	Animal traction loan scheme	35.0	35.0	100.0	Provision of 2,200 animal traction packages on loan to farmers
2004	Tractor hire service	-	4.6		-
	Animal traction loan scheme	185.0	-		Developments of Kano State-NACRBD cooperative scheme for provision of soft loan facility to farmers for animal traction packages.
2003	Tractor hire service	25.2	150.1	559.6	Refurbish 2 caterpillars, 1 mobile crane, 24 tractors, 2 combine harvesters and 1 milling machine; procure machine tools, heavy plants tools; construct heavy plants machine shed.
	Animal traction loan scheme	41.3	35.6	86.2	Procure ox-cart, ox-drawn ridgers; payment of 30% as counterpart fund for Agric Bank work bull loan scheme

3.2. Ministry of Agriculture and Natural Resources

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The mission was well received by both the Director of Agricultural Services and Director of Agricultural Engineering Services – with which latter department mission members had an extensive and intensive interaction. Through the Agricultural Mechanization programme, the Ministry provides subsidized services relating to: (a) tractor hire for land preparation, heavy equipment hire for the development of new/virgin land, as well as combine crop harvester hire; (b) design and fabrication of simple farm tools and spare parts of farm machinery and implements; and (c) routine maintenance services of tractors, light vehicles and power generating sets at both the central and zonal workshops

Through capital budgetary provisions, together with special fund allocations from other/central votes, Kano State Ministry of Agriculture and Natural Resources was able to (Table 3.1):

- (a) Purchase 50 tractors and complementary implements in 2003 at a total cost of N150,062,772, with one tractor allocated to each of the 44 Local Government Councils in the state, KNARDA and Kano State University, while the Ministry retained the balance of 4 tractors for subsidized hire services to farmers;

- (b) Even though the Ministry had no budgetary allocation in 2004, a special provision was made for the repair of 4 tractors at a total cost of N4,611,364;
- (c) Purchase, in 2005, of 2 tractors, 9 disc harrows, 2 disc ridgers, 4 trailers and 100 harrow bearings; refurbishing of 8 tractors, 1 caterpillar D7, 5 disc harrows and 3 disc ridgers; as well as repairs of 1 caterpillar D7 at a combine cost of N21,579,570; and
- (d) Repair of 10 tractors in 2006 at a total cost of N5,474,696 from a special/central project vote.

The approval of N5.0 million in 2007 for the rehabilitation of 10 tractors and complementary implements was against an initial request of N110 million – N40 million for the purchase of tractors and heavy plants for hire services, post-harvest equipment and repairs; and N70 million as Kano State contribution to FGN-procured tractors – some 22 of which were to be sold to interested farmers/farmer groups at 40% subsidy (25% by FGN and 15% by the State Government) under a public-private-partnership arrangement. Apparently as a result of a well articulated 4-year Agricultural Mechanization rolling plan (2008-11), funding to Kano State Ministry of Agriculture and Natural Resources improved greatly in 2008, with the approval of N230.0 million – for the rehabilitation of existing tractor stock, plants, combined crop harvesters and threshers; purchase of workshop equipment and material; as well as state contribution to the procurement of 34 tractors to be sold to farmers/farmer groups at 40% subsidy.

However, in spite the obvious effort and sizeable investments in support of Agricultural Mechanization, the challenges faced by Kano State remain huge and daunting – as exemplified in the following statistics (as at end-2008):

Factor	FAO	Nigeria	Kano State
Tractor-to-farmer ratio	1:25	1:650	1:1,508
Tractor density	1.5 hp/ha	0.2 hp/ha	0.07 hp/ha

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With a stock of only 557 functional tractors presently in the public domain, Kano state requires investments that would enable the provision of 2,500 additional/new tractors and repairs of some 800 existing tractors in the 44 Local Government Councils to enable the state to attain a tractor density of 1.0hp/ha.

3.3. Kano State Agriculture and Rural Development Agency

Although the most extensive and broadest consultation, as well as the greatest investment of time and energy was at/with KNARDA, the inability of the mission team to meet the Managing Director on seat made it impossible to adequately appreciate the state of investments in support of animal traction and post-harvest handling of agricultural commodities, especially to relate implementation achievements to the capital budget allocations as reflected in Table 3.1. The brief interactive session with KNARDA Managing Director was at the head office of Ministry of Agriculture and Natural Resources, following which he departed Kano on duty travel to Abuja. Subsequent strenuous effort and pleas, through emissaries, e-messaging and phone calls, have proved unsuccessful for the provision of operational budget performance at the level of annual activities for the period 2003-08 – as well as plans for 2009.

Nevertheless, from the interaction with the Managing Director and several of his operational colleagues, it is evident that the direct involvement of KNARDA in the promotion of Agricultural Mechanization is limited to: (a) the provision of animal traction packages (each comprised of two work bulls, a ridger and an ox cart to farmers at subsidized costs; (b) training of local black smith for the fabrication of animal-drawn equipments and tools; and (c)

provision, also at subsidized costs and/or on hire service arrangement, of such post-harvest handling facilities as threshers, seed/grain cleaners, parboilers, oil mills, flour mills, storage and other crop processing equipment. From Table 3.1, it is evident that a significantly substantial proportion of funds allocated between 2003-08 were released in support of provision of animal traction package loans to farmers and former groups. In 2008, for instance, 264 packages were procured and distributed equally among the 44 Local Government Councils. As at the time of the mission, the recovery of animal traction loans averaged between 70-90%

3.4. Kano State Agricultural Supply Company

At its establishments in 1981, KASCO was the commercial arm of KNARDA, with the latter holding 99% of the share capital of the Company and serving as the chair of its board. In addition to the supply of fertilizer and other agro-chemicals, KASCO was also responsible for the provision of equipment for land preparation, post-harvest crop processing, as well as irrigation pumps. Existing run-down infrastructure assets of the company are strategically located in rural areas of Kano State – including for animal feed manufacture, fertilizer blending and bulk storage. At the time of the mission, the Company was at a sorry state of inactivity, stand-still and abandonment. It had not been granted any Government subvention in the 5-year period under study (2004-08). Indeed, in spite recommendations made as part of the State Economic Development Road Map and the allocation of re-capitalization resources in 2003 (N71,500,000) and 2005 (N60,000,000) KASCO had neither been privatized, nor had it been recapitalized.

4. OGUN STATE

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The visit to Abeokuta was from 23-26/02/2009.⁶ Discussions were held with key officials of the Bureau of Management and Budget in the Governor's Office, Ogun State Agricultural Development Programme (OGADEP), Agro-Services Corporation, as well as the Agriculture and Multi-Purpose Credit Agency (OSAMCA). The period of the visit coincided with two events which impacted negatively on prior appointments with some other Government officials: (a) field inspection of some project activities by the State Executive Governor, attended by the Director- General of the Ministry of Agriculture and (b) Annual Workshop of Zonal Research-Extension-Farmer Input Linkage System (REFILS), attended by the General Manager of OGADEP as well as the President of the south-west Rice Farmers Association, (Mr. Bode Adenikan).

4.1 Bureau of Management and Budget

Ogun State Bureau of Management and Budget, under the office of the Governor, is charged with the preparation and processing of annual capital and recurrent budgets, as well as the monitoring, evaluation and coordination of ministries, agencies and external aid. The Bureau appears very well organized and non-bureaucratic, especially in terms of access to budgetary information. It stocks bound volumes of approved budgetary estimates which copies are easily available to interested general public at a fee. From the 2000-08 approved and the 2009 draft estimates procured by the mission on behalf of PrOpCom, the capital allocations to the various agricultural agencies with possible agricultural/farm mechanization involvement are summarized in Table 4.1. The approved and actual recurrent and capital budgets are compared in Table 4.2 for the Ministry of Agriculture, Agro-Services Corporation, OGADEP and OSAMCA.

⁶ *The mission comprised Joseph Y. Yayock (Consultant), who was greatly assisted by PrOpCom colleague, Mr. Adedayo Oguntuase.*

4.2 Ministry of Agriculture

Efforts to meet up with senior officials of Ministry of Agriculture proved abortive, as the Director-General was among the entourage of the State Governor on field inspection of development projects. The Directors of Engineering Services, Finance and Accounts, as well as Administration were similarly not available. But from interaction with junior officials, it was understood that Ministry of Agriculture *per se* is not and has not been directly involved with promoting Agricultural Mechanization in the state, except through the provision of capital fund contribution to match FGN-procured tractors and implements. Consequently, the mission was referred to the Agro-Services Corporation as the main institution designated for the promotion of Agricultural Mechanization in Ogun State.

Table 4.1: Ogun State Approved Capital Budget Allocation, 2000-09 (N million)

Agricultural Mechanization -Related Institutions	2009	2008	2007	2006	2005	2004	2002	2001	2000
<u>Ministry of Agriculture:</u>	400.0	210.0	100.0	220.0	326.65	400.0	150.0	72.0	50.0
-Purchase of Vehicles/ Tractors	-	27.5	8.35	16.75	90.0	82.312			
<u>Ministry of Forestry:</u>	400.0	101.5	90.0	123.5					
-Purchase of Vehicles/ Tractors/ Motorcycles	-	10.28	10.0	10.0					
<u>Agro-Services Corporation:</u>	22.6	12.6	18.0	18.0	41.2	50.0	20.0	20.0	18.0
-Purchase/ refurbishing of tractors and implements	-	6.2	11.7	11.85	1.2	15.0	2.0	2.0	2.0
-Refurbishing of heavy equipment	-	-	-	-	1.0	2.0	2.0	2.0	2.0
-Purchase of Bulldozers	-	-	-	-	-	-	-	-	-
<u>OGADEP:</u>	129.4	70.0	100	23.0	15.0	21.0	21.0	21.0	13.189
-Furnishing of plants and heavy equipment (grader)	-	1.5	3.5	3.5	1.3	0.7	0.7	1.59	1.0
-Fadama II Counterpart fund	-	15.0	22.0	-	-	-	-	-	-
RTEP Counterpart fund	-	10.0	5.0	-	-	-	-	-	-
National Programme Food Security	-	25.0	50.0	-	-	-	-	-	-
<u>OSAMCA:</u>	400.0	353.0	10.0	19.0	9.9	60.0			
-Loanable funds- tractor purchase	-	5.0	-	-	-	50.0	Not applicable	Not applicable	Not applicable

(a) Up to 2004, Ministry of Agriculture comprised crops, livestock, fisheries and forestry

(b) Up to 2004, OSAMCA was OSACA- Ogun State Agricultural Credit Agency.

Table 4.2: Ogun State Approved and Actual Recurrent and Capital Budget Allocations,

2004-08 (N million)

Agency	2008	2007	2006	2005	2004
<u>Ministry of Agriculture</u>					
Approved Recurrent	220.0	204.0	210.0	139.2	238.5
Actual Recurrent	-	145.3	180.6	129.2	175.8
Approved Capital	210.0	100.0	220.0	326.6	400.0
Actual Capital	-	8.8	89.4	110.5	251.1
<u>Agro-Service Corporation</u>					
Approved Recurrent	68.0	60.0	53.0	50.0	52.2
Actual Recurrent	-	42.4	57.4	33.3	32.8
Approved Capital	12.6	18.0	18.0	41.2	75.0
Actual Capital	-	3.2	12.5	8.1	43.9
Engineering Services of Agro-					
Services Corporation	-	51.0	43.0	41.2	41.2
Approved Recurrent	-	53.3	45.7	40.5	41.8
Actual Recurrent	-	11.7	12.7	5.2	30
Approved Capital	-	3.3	2.7	3.7	15.2
Actual Capital					
<u>OGADEP</u>					
Approved Recurrent	184.0	153.0	130.0	107.0	112.0
Actual Recurrent	-	101.9	129.7	80.4	72.4
Approved Capital	70.0	100.0	50.0	15.0	15.0
Actual Capital	-	33.3	42.8	-	-
<u>OSAMCA</u>					
Approved Recurrent	29.0	25.1	13.0	16.0	1.8
Actual Recurrent	-	7.1	9.3	3.0	20.0

Approved Capital	353.5	10.0	9.0	9.9	85.0
Actual Capital	-	-	2.4	2.0	-

4.3 Ogun State Agricultural Development Programme

Also being part of the Governor's contingent for the field inspection of development projects, contact with the General Manager of OGADEP was limited to a telephone interaction and a subsequent brief physical discussion at the premises of Agro-Services Corporation, prior to his departure to the 2009 REFILS workshop in Ibadan. However, following an intensive discussion with a ranking official (Head of Seed Production), it is evident that the involvement of OGADEP in the promotion of Agricultural Mechanization is, at best, very limited. Instead, the mission was directed to the Agro-Services Corporation as the major institution charged with Agricultural Mechanization and input supply.

4.4 Agricultural and Multi-Purpose Credit Agency

Established in 2003 initially as Ogun State Agricultural Credit Agency, OSACA became operational in February 2004 to provide micro-credit to the state farming population. Its scope of activities was quickly expanded in July 2004 to also embrace the empowerment of non-farm, non-agricultural entrepreneurs and renamed OSAMCA.

The law establishing OSAMCA requires the Agency to source for fund in the market place in support of its operations (including loanable funds, funds for tractors, implements and post-harvest equipment purchases. This is in addition to grants by Ogun State Government for salaries and running costs. The direct involvement of OSAMCA in support of Agricultural Mechanization is traceable to the allocation of 26 tractors to Ogun State by FGN in 2003. The tractors were to be sold to farmers/farmer groups at 50% subsidy (25% each by FGN and State Governments). All 26 tractors were handed over to OSAMCA which donated 2 tractors to schools of agriculture for instructional purposes. The balance of 24 tractors were given/sold as credit-in-kind to farm settlement groups (90% of the tractors) and individual farmers (10%) at the stipulated 50% subsidy, with 15% down payment and 3-year repayment period. As at the time of the mission, the pace of recovery of the tractor costs was reportedly slow, but at a relatively impressive 70% recovery rate.

In 2007, another consignment of 22 FGN-procured tractor mix of varying horse power capacities was allocated to Ogun State, also through OSAMCA. While the sale process of this batch of tractors was still underway as at the time of the mission, it was understood that the down payment was being raised, from 15-40%, amounting to N1.3 million per tractor - cost levels that are far beyond individual farmers and poorly organized farmer groups. Among other key challenges faced by OSAMCA in its provision/sale of tractors as credit-in-kind to farmers include: (a) the relatively small size of farms; (b) paucity of spare parts; (c) inadequate, poor business orientation and capacity; and (d) low skills endowment. Specific to the challenges of poor attitude and low human capacity, these are founded partly by inadequate investments in the proper and effective organization and empowerment of beneficiary farmers and farmer groups, and partly by the

below-average performance of public sector agencies charged with beneficiary organization, capacitation, skills development and empowerment.

4.5. Agro-Services Corporation

The Ogun State Agro-Services Corporation was established in April 1980 to offer integrated and coordinated agricultural inputs delivery services to farmers. Specific to its Agricultural Mechanization functions, the Corporation was expected to assist Ogun State farmers in the acquisition of mechanization services for land clearing and preparation, crop planting, spraying and harvesting. The services are partially commercialized, in the sense that the entire operational costs (overhead) and part of the capital expenditure of the Corporation are internally financed from generated revenue -- notably from tractor hiring, tractor repairs/maintenance, evaluation of tractors/implements for prospective buyers, training of tractor operators, sale of fertilizers and other agro-chemicals, to consultancy services/technical advice to interested farmers. Salaries and allowances of staff are fully financed by Government, while capital grants are made for repairs/refurbishing of farm equipment (tractors, implements and low-loaders) and purchase of such engineering materials as tyres and discs.

Prior to 2004, Ogun State Government, through its Ministry of Agriculture, procured tractors of varying makes, models and capacities for hire services through the Agro-Services Corporation. In 2005 and for the first time, the Corporation purchased, from its internally-generated revenue, four (4) new tractors at a total cost of N9,614,826 with two (2) additional tractors similarly procured in 2008. As at end-February 2009 the Corporation had a total stock of 18 hydraulically functional tractors, 12 serviceable tractors, but no heavy equipment or bulldozers for land clearing and opening of new land. Indeed, it was understood that no new heavy equipment of bulldozers has been procured since 1982. In addition, it was also evident that services relating to post-harvest activities are extremely limited, with the availability of only five (5) functional crop shellers state-wide.

4.6. Recurrent vs. Capital Allocation and Expenditure

As shown in Table 4.2, there is great variability from one year to the next and between implementing institutions in the budgetary allocations earmarked for recurrent and capital costs. The same is true about actual expenditures. However, overall across institutions and years the ratio of recurrent-to-capital costs average about 70%.

5 KADUNA AGRICULTURAL DEVELOPMENT PROGRAMME

Through e-messaging addressed to the General Manager of Kaduna State Agricultural Development Programme (KADP), the mission solicited the contribution of KADP aimed at gaining an insight relating to the issue of public sector investments in support of mechanizing and modernizing agriculture in Kaduna State. This report is based on the information, data and analysis contributed by the General Manager and his colleagues in Kaduna.

5.1. Resource Availability

The annual budgetary capital allocation to Kaduna State Ministry of Agriculture over the 5-year period 2004-08 is summarized hereunder (N million):

Year	Approved Total	Earmarked for Agric. Mech	Actual for Agric. Mech	Performance (%)
2008	3,981.3	192.0	132.0	68.7
2007	1,603.9	350.0	230.0	65.7
2006	1,332.0	400.0	381.6	95.4
2005	1,160.8	18.0	12.0	66.6
2004	561.0	253.0	?	

Much of the capital expenditure on Agricultural Mechanization was for: (a) procurement and distribution of tractors and implements to farmers at subsidized rates, either as loans, or operated as hire schemes; (b) procurement and distribution of work bulls and complementary traction implements, also as subsidized rate on loan basis, or as hire schemes; and (c) processing equipment to farmers. The sourcing of the tractors, animal traction packages and/or the processing equipment is either directly by the State Ministry of Agriculture, or indirectly by the Federal Government of Nigeria (FGN) for which payment/cost the State Government makes a contribution. Capital fund allocation approved for KADP during the 5-year period 2004-08 is as shown hereunder (N million):

Year	Approved Allocation
2008	642.3
2007	599.3
2006	1,780.0
2005	1,603.9
2004	781.4

The KADP budget allocations are inclusive of counterpart funds contributed by both Kaduna State Government and FGN in respect of both national projects/programmes and externally-assisted investment interventions. Specific to support for the promotion of Agricultural Mechanization in the state, KADP resources were utilized for:

- (a) Procurement of 20 combine grating and chipping machines (at N120,000 per unit) under the IFAD-assisted Roots and Tubers Expansion Programme (RTEP) to farmers at 50% cost in seven (7) Local Governments;
- (b) Establishment and equipping of 4 rice processing centres under NERICA programme (at an average of N1,600,000), one in each of the 4 geopolitical zones of the state;
- (c) Establishment and equipping of 25 cassava processing centres (at N1,200,000) also under RTEP and covering 15 Local Governments;
- (d) Establishment of 3 rice milling centres (at N960,000 each) under the National Food Security Programme;

- (e) Assisted women group in 27 rural village areas (at an average of N126,000) under IFAD-assisted Community-Based Agricultural and Rural Development Programme;
- (f) Provision of 78 animal traction packages, comprised of a pair of work bulls, a ridger and an ox-cart (at unit price of N120,000); and
- (g) Procurement and distribution of single and multi-crop threshers to 36 farmers (at subsidized cost of N76,000 and N150,000, respectively).

In addition, the Agricultural Mechanization unit of KADP also provides advisory services to farmers and links them to/with credible suppliers of agricultural/farm machinery and equipment: tractors, threshers and such farm implements as harrows, ploughs and ridgers.

Resources available to Kaduna State under the World Bank-assisted Fadama II Programme during the period 2004-08 in direct support to/for Agricultural Mechanization and the activities undertaken are summarized as hereunder (N million):

Year	Actual Expenditure	Activities
2008	28.8	Procurement and sale of 22 assorted tractors to farmers/farmer groups at 70% subsidy (45% State, 25% FGN).
2007	12.9	Purchase/hiring of tractors, land clearing heavy equipment and rehabilitation of tractor training school.
2006	68.3	Distribution of 116 assorted tractors – 91 procured by Kaduna State and 25 provided by FGN.
2005	33.6	Repairs/rehabilitation of tractors, land clearing equipment and mechanical workshop.
2004	?	Procurement and distribution of animal traction packages, renovation of mechanical workshop and procurement of other agricultural equipment: grinding mills, groundnut oil extract, rice hullers, headpans, cassava processing machines.

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5.2. Equipment Fabrication

In view of the increasing importance of diversification of crops, Kaduna State has invested in the acquisition of prototype equipment and machinery from the National Centre for Agricultural Mechanization (Ilorin) which are being fabricated and sold to farmers by Messrs HANIGHA NIG Limited. Among such equipment/machines are for cassava grating, cassava chipping, crop threshers and crop dryers.

5.3. Kaduna State Farmer Supply Company

The Kaduna State Farmer Supply Company was initially established as the commercial wing of the Intergrated Rural Development Authority (and later) KADP. Following the bifurcation of the old state into Kaduna and Katsina, FASCOM became a limited liability company. In the past, FASCOM was a major player in the provision of Agricultural Mechanization equipment and

machinery as an integral part of its role in agricultural input procurement and sale. However, for sometime now FASCOM has been a mere shadow of its glorious past, with virtually no support from Government. Until the Company is re-capitalized or sold out to private hands, its role in promoting Agricultural Mechanization is likely to remain nil.

Appendix: PrOpCom Assignment on Public Sector Investments in Support of Agricultural Mechanization – Key People Met

Federal Ministry of Agriculture and Water Resources, Abuja

1. Usman M Abdullahi, Director of Finance and Administration 0803-617-0278
2. Gabriel C. Ukomadu, Deputy Director (Budget) 0803-717-2739
3. Musibau Olumuyiwa Azeez, Chief Agricultural Officer, Federal Department of Agriculture 0803-378-4479;
4. C. Ugwu, Secretary to Director of Finance and Administration, 0803-619-7618; 0805-961-5083
5. M.C. Ene, Deputy Director of Agricultural Engineering Services, Federal Department of Agriculture, 0803-597-5711.

National Food Reserve Agency of FMAWR, Abuja

6. Oyesola O. Oyebanji, Director of International Collaboration/Partnership, 0803-590-9268; 0804-418-4886; 0805-851-8863
7. I.B. Jibrin, Director of Finance and Accounts 0806-595-5711
8. Jumai Hashim, Budget Officer, 0803-595-5711
9. Elesu Bitrus Yakubu, Deputy Director (Engineering) 0805-434-7785

Kano State Ministry of Planning and Budget, Kano

10. Nour Sani Hanga, Hon Commissioner 0803-452-6000
11. Ashiru Danazumi Zage, Permanent Secretary 0805-443-8251
12. Shaibu Musa, Director of Development Support Coordination 0806-161-9060
13. Gambo A. Getso, Director of Planning 0808-042-0522
14. Isyaku Muazu M, Assistant Director (Planning)

Kano State Ministry of Agriculture and Natural Resources, Kano

15. Abba Datti, Director of Agricultural Services, 0803-652-2690
16. Abdulrahman Ahmed, Director of Agricultural Engineering Services Department, 0803-452-4202

Kano State Agricultural Supply Company, Kano

17. Shehu Garko, General Manager, Commercial, 0803-325-2007
18. Umar G. Ameen, Assistant General Manager, Admin and Personnel, 0805-436-3895

Kano State Agricultural and Rural Development Agency, Kano

19. Muhammad Kura, Managing Director, 0803-403-9959
20. Muhammad Badawi, Director of Human Resources Development, 0805-244-1291
21. Abdulmumini Ado, Director of Agriculture Service, 0803-587-3541
22. Adamu Alu Wudil, Director of Rural Institution Development of State Project Coordinator, Fadama III Agric
23. Idris Saidu Garko, Acting Director of Extension 0803-656-8585
24. Abdullahi Mohammed Gundutse, Asst Director, Agric Credit, 0803-373-7337

25. Rashid Abdul-Rashid Abba, Agric. Mechanization, 0806-566-8322

Kano State Ministry of Local Government Affairs, Kano

26. Hassan Garba, Director of Agric Services, 0803-587-4300

Ogun State Agricultural Development Programme, Abeokuta

27. I.O. Phillip, General Manager, 0803-319-4961

28. Olugbenga A.. Osiyoye, head of Seed Production, 0803-377-7121

Ogun State Agriculture and Multipurpose Credit Agency, Abeokuta

29. Apagun Alamin Fabuyi, General Manager, 0803-378-9252

30. Samuel Adeogun, Director of Credit Planning, M&E, 0803-716-8892

Ogun State Bureau of Management and Budget, Governor's Office, Abeokuta

31. Kayode Sunmola, Director General

32. Adebisi Osolase, Director of Budget, 0803-381-4439; 0803-978-0356

33. Olatunji K. Akinbo, Dept of Planning, 0803-549-5961

Ogun State Agro-Services Corporation, Abeokuta

34. Olusoji Vaughan, General Manager, 0805-885-7063

35. G.T. Lawal, Director of Engineering Services, 039-242718.

Kaduna Agricultural Development Programme, Kaduna

36. Abdulkadir A. Kassim, Programme Manager, 0803-588-7626

Institute for Agricultural Research, Ahmadu Bello University, Zaria.

37. Shehu G. Ado, Professor and former Director, 0802-833-3663; 0803-451-5067;
0805-072-8221