



Synopsis: How Macroeconomic Factors May Influence Agricultural Program Sustainability: Evidence from Cross River State, Nigeria

Patrick Hatzenbuehler and George Mavrotas

RESEARCH OVERVIEW

Expenditures of the Federal Ministry of Agriculture and Rural Development (FMARD) and the state Ministries of Agriculture in Nigeria need to be accounted for when assessing the extent to which Nigeria is meeting its pledge as a signatory of the Comprehensive Africa Agriculture Development Programme (CAADP) to commit a 10 percent share of total government expenditures toward agriculture. This policy note describes recent research that examines how expenditures on agricultural programs at the federal and state level have fluctuated in recent years and estimates the relative fiscal autonomy of FMARD and state Ministries of Agriculture.

Additionally, an economic model that captures the fiscal linkages between federal, state, and non-governmental organizations, including donors, was implemented with data obtained through a case study of Cross River state. The model was used to analyze the extent to which variation in the global oil price influences state government fiscal conditions and, hence, the likelihood that agricultural programs can be sustained during periods of negative oil price shocks. This application of the model to Cross River state permits comparisons of the relative sizes of state Ministries of Agriculture budgets in states with different socioeconomic characteristics and government preferences and enables an assessment to be made of the sustainability of those agricultural budgets under conditions of public sector financial uncertainty.¹

BACKGROUND

A primary aim of the current Nigerian national agricultural policy framework developed by FMARD, the Agriculture Promotion Policy, is to grow the Nigerian agricultural sector so that it

comprises a significantly larger share of the national economy. Since both FMARD and state Ministries of Agriculture implement agricultural programs, assessment of their current expenditures and how those expenditures fluctuate over time provides an indication of the extent to which this recent shift in focus towards agriculture differs relative to the past.

Since 2000, Nigerian federal government revenue has moved very closely with the global oil price (correlation coefficient of 0.93). Thus, the amount of public funds available for allocation by the federal government to state governments has been largely determined by conditions in the global oil market. However, the federal government can save revenue for future use and borrow on domestic or foreign markets to a greater degree than can state governments. Therefore, FMARD is better positioned to sustain expenditures in periods of negative fiscal shocks than are state Ministries of Agriculture on their own.

STUDY OBJECTIVES

The objectives of this study are to:

- 1) Assess the degree to which federal and state total expenditures and expenditures specifically on agriculture have adjusted with movements in the global oil price, and, hence, with federal government revenues; and,
- 2) Analyze how much stress on the FMARD budget there would be if it were to allocate a portion of its funds to state Ministries of Agriculture, using the Cross River state Ministry of Agriculture and Natural Resources (CRMANR) as a case study.

DATA AND METHODS

Data since 2011 on recurrent, capital, and total expenditures for the federal government and for

¹ A detailed discussion of this research can be found in NSSP Working Paper 50, *How Macroeconomic Factors May Influence Agricultural Program Sustainability: Evidence from Cross River State, Nigeria*.
<http://ebrary.ifpri.org/cdm/ref/collection/p15738coll2/id/131526>

FMARD were obtained from Appropriations Acts of the National Assembly. Data for those same types of expenditures for the state governments in aggregate were gathered for the period 2002 to 2015 from Central Bank of Nigeria annual reports. Cross River state government revenue and expenditure data for the period 2009 to 2016 were provided by the Cross River State Office of the Auditor General on the Accounts. Global oil price data were obtained from the World Bank.

RESULTS

Table 1 shows that the correlation between FMARD total expenditures and global oil prices are negative and close to zero, but that for recurrent expenditures the relationship is high and positive. This means that, while total expenditures have been relatively independent of fluctuations in the global oil price, FMARD staff salary and overhead spending levels have increased and decreased as the global oil price has risen and fallen, respectively.

Table 1. Correlation of global oil price with FMARD and state government expenditures on agriculture

	Correlation coefficient with global oil price
FMARD total expenditures	-0.12
FMARD recurrent expenditures	0.74
State government total expenditures on agriculture	0.83
State government recurrent expenditures on agriculture	0.76

Note: The state government expenditures reported are aggregates for all states (36 states, plus Abuja FCT) in Nigeria. FMARD expenditures based on period 2011 to 2015; state government expenditures for period 2002 to 2015.

A starkly different picture emerges from the analogous assessment at state level. The correlations between the global oil price and aggregate state total and agricultural expenditures are 0.83 and 0.76, respectively. This implies that total and agricultural expenditures rise and fall closely with the oil price, and, thus, states have not had the ability to continue to fund all ongoing agricultural programs in periods of lower

government revenues due to declines in global oil prices. Fiscal autonomy is a necessary condition for FMARD to allocate supplemental funds to state Ministries of Agriculture during negative revenue shock periods. These relationships between federal and state public financing patterns show that there is potential for FMARD to do so in the future.

Examination of expenditures on agricultural programs in Cross River state in recent years show that FMARD would not be placed under undue financial strain if it were to allocate a portion of its budget to fund ongoing state-level agricultural programs. This is especially the case under conditions of higher capital expenditures by FMARD, as has been observed in recent years. Indeed, the budget for project implementation in the CRMANR for 2013 was less than 2 percent of FMARD capital expenditures. Thus, FMARD could plausibly fund a sizable number of state-level agricultural programs a using less than half of its current level of capital expenditure in doing so.

POLICY RECOMMENDATIONS

States of Nigeria for which there is a relatively high pass-through of the effects of global oil price changes on fiscal conditions and for which there are presently lower than average shares of total expenditures being dedicated to agricultural programs, such as Cross River state, are those that would benefit most from increased collaboration with FMARD to provide sustained funding for implementing agricultural programs. Urgency is needed in establishing such partnerships, since there is risk of decline in institutional capacity of state Ministry of Agriculture staff when agricultural programs are neglected during periods of poor fiscal conditions. Thus, encouraging resource sharing by FMARD with the state Ministries of Agriculture would both sustain ongoing agricultural programs in the near term and enhance the ability of both the federal and state Ministries of Agriculture to successfully implement agricultural programs in the future.

INTERNATIONAL FOOD POLICY RESEARCH INSTITUTE | 1201 Eye Street, NW | Washington, DC 20005-3915 USA
T: +1.202.862.5600 | F: +1.202.862.5606 | Email: ifpri@cgiar.org | www.ifpri.org

IFPRI-ABUJA | c/o International Fertilizer Development Center | No.6 Ogbagi Street | Off Oro-Ago Crescent, Garki II | Abuja, Nigeria | Email: ifpri-nigeria@cgiar.org | nssp.ifpri.org

The Nigeria Strategy Support Program (NSSP) is managed by the International Food Policy Research Institute (IFPRI) and is financially made possible by the generous support of the American people through the United States Agency for International Development (USAID) in connection with the Feed the Future Nigeria Agricultural Policy Project. The research presented here was conducted as part of the CGIAR Research Program on Policies, Institutions, and Markets (PIM), which is led by IFPRI. This publication has been prepared as an output of NSSP. It has not been independently peer reviewed. Any opinions expressed here belong to the author(s) and do not necessarily reflect those of IFPRI, USAID, PIM, or CGIAR.

Copyright © 2017. Remains with the author(s). All rights reserved.