Feed the Future Innovation Lab for Food Security Policy

Research Paper 95

March 2018

THE DEVOLUTION REVOLUTION: IMPLICATIONS FOR AGRICULTURAL SERVICE DELIVERY IN GHANA

By

Danielle Resnick



UNIVERSITY





Food Security Policy Research Papers

This Research Paper series is designed to timely disseminate research and policy analytical outputs generated by the USAID funded Feed the Future Innovation Lab for Food Security Policy (FSP) and its Associate Awards. The FSP project is managed by the Food Security Group (FSG) of the Department of Agricultural, Food, and Resource Economics (AFRE) at Michigan State University (MSU), and implemented in partnership with the International Food Policy Research Institute (IFPRI) and the University of Pretoria (UP). Together, the MSU-IFPRI-UP consortium works with governments, researchers, and private sector stakeholders in Feed the Future focus countries in Africa and Asia to increase agricultural productivity, improve dietary diversity and build greater resilience to challenges like climate change that affect livelihoods.

The papers are aimed at researchers, policy makers, donor agencies, educators, and international development practitioners. Selected papers will be translated into French, Portuguese, or other languages.

Copies of all FSP Research Papers and Policy Briefs are freely downloadable in pdf format from the following Web site: www.foodsecuritypolicy.msu.edu

Copies of all FSP papers and briefs are also submitted to the USAID Development Experience Clearing House (DEC) at: http://dec.usaid.gov/

AUTHORS

Danielle Resnick is Senior Research Fellow and Governance Theme Leader in Development Strategy and Governance Division of the International Food Policy Research Institute, DC.

Authors' Acknowledgment

Support for this study was generously provided by USAID through IFPRI's Ghana Strategy Support Program, USAID through the Feed the Future Innovation Lab Food Security Project, and the CGIAR Research Program on Policies, Institutions, and Markets (PIM) led by IFPRI. The author is grateful for feedback and encouragement for the study that was provided by Shashi Kolavalli and Karl Pauw, as well as Sam Benin, Daniel Ohemeng Boateng, Josephine Quagraine, Dorothy Affa, Angela Dansson, and Kwaku Owusu Baah. John Agandin and Mekamu Kedal provided wonderful research assistance. Very special thanks go to Bhavna Sivasubramanian, who collected and analyzed much of the composite budget data. Dr. Eric Oduro Osae of the Centre for Local Governance Advocacy generously shared his expertise on local governance in Ghana. The Center for Democratic Development-Ghana (CDD-Ghana) professionally implemented the surveys under the guidance of Daniel Attah Armoh, Kakra Adu, Newton Norviewu, Franklin Oduro, Edem Selormey, and Mohammed Awal. The author is also very thankful to the 10 Regional Agricultural Directors in Ghana who kindly shared the contact details of their district staff in order to facilitate the DDA surveys. The surveys were approved by IFPRI's Institutional Review Board, approval #00007490. All errors are those of the author and do not necessarily reflect those of IFPRI, PIM, or the CGIAR.

Author contact: Email: d.resnick@cgiar.org

This paper is also published as International Food Policy Research Institute Discussion Paper No. 01714.

This study is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under the Feed the Future initiative. The contents are the responsibility of the study authors and do not necessarily reflect the views of USAID or the United States Government.

Copyright © 2018, Michigan State University and Danielle Resnick. All rights reserved. This material may be reproduced for personal and not-for-profit use without permission from but with acknowledgment to MSU and Danielle Resnick.

Published by the Department of Agricultural, Food, and Resource Economics, Michigan State University, Justin S. Morrill Hall of Agriculture, 446 West Circle Dr., Room 202, East Lansing, Michigan 48824, USA.

ABSTRACT

In 2009, Ghana began pursuing the devolution of functions and responsibilities from the central government to the country's 216 Metropolitan, Municipal, and District Assemblies (MMDAs). Agriculture was among one of the first sectors to be devolved, a process that became effective in 2012. This paper analyzes how this transition has proceeded, with a focus on the implications for agricultural civil servants within the MMDAs, accountability to citizens, and agricultural expenditures. Empirically, the paper draws on a survey of 960 rural households, 80 District Directors of Agriculture (DDAs), district level budget data from 2012 to 2016, and semistructured interviews with a range of national and local government stakeholders. The findings show a number of positive benefits of the transition for DDAs, including more opportunities for employment mobility and the chance to engage more with local citizens in designing agricultural projects. Yet, financial constraints are the main complaint, with low and uncertain funding a common hindrance to delivering services and adequately staffing offices. Budget data reveals that the share of funding budgeted for agriculture has changed only marginally since 2012 while agricultural expenditures in absolute terms and as a proportion of agricultural households has declined, even in comparison to other devolved sectors. Political incentives may be partially responsible for these trends in budgeting as elected Assembly members tend to prioritize other sectors with more visible outcomes. Citizens are influenced by these dynamics, with those who have access to agricultural goods and services being significantly more likely to claim that they are satisfied with the agricultural devolution process.

TABLE OF CONTENTS

Abstract	iv
List of Tables	V1
List of Figures	
Acronyms	V111
1. Introduction	1
2. Devolution, Service Delivery, and Agriculture	2
3. The Devolution Process in Ghana	
4. Data Sources	8
5. How has Devolution affected Civil Servants?	
6. Budgeted and Actual Expenditures	20
7. Citizen Perceptions of Devolution	26
8. Conclusions	34
Appendix	36
References	45

LIST OF TABLES

TABLE	\G E
Table 3.1 Distribution of Responsibilities across Sectors	6
Table 5.1 Snapshot of DDA Sample	10
Table 5.2 Perceptions of Primary Job Responsibility	11
Table 5.3 Self-Identification as MMDA or MoFA Employees	12
Table 5.4 How often have you met with the following groups over the last three months?	12
Table 5.5 Assessment of Composite Budgeting	16
Table 5.6 During the composite budget planning process, do you feel that you can effectively negotiate with other departments to obtain sufficient resources for agriculture?	17
Table 5.7 Do you feel that you personally fund more field visits now that you did prior to the 2012 devolution transition?	19
Table 6.1 Average MMDA budgeted expenditures by sector as share of total expenditures (%) across districts), 20
Table 6.2 Average MMDA actual expenditures by sector as share of total expenditures (%)	21
Table 7.1 Summary Statistics of Household Survey Sample	26
Table 7.2 Logit analysis of who understands the concept of decentralization	28
Table 7.3 Share who trust somewhat or a lot	28
Table 7.4 Most preferred option for investment of an additional 2 million GHS in MMDA	30
Table 7.4 Continued	31
Table 7.5 Average Sectoral Budget Shares among Sub-Sample of 48 Districts	31
Table 7.6 Satisfaction with Agricultural Services in Wake of Devolution	32
Table A.1 Selected Districts for DDA Survey	36
Table A.2 Affiliations of Interviewed Government Stakeholders	38
Table A.3 Qualitative Responses of DDAs - "Please tell us what you see as one of the main opportunities that has resulted from devolving agriculture to the MMDA level"	
(Verbatim responses)	39
Table A.4 Qualitative Responses of DDAs – "Please tell us what you see as one of the main challenges that has resulted from devolving agriculture to the MMDA level" (Verbat responses)	tim 41
Table A.5 Farmers' access to inputs during last agricultural season (%)	44
	• •

LIST OF FIGURES

FIGURE	PAG	GE
Figure 3.1	Diagram of Institutional Landscape as Agriculture Devolves	7
Figure 4.1	Map of Selected Districts for DDA and Household Surveys	8
Figure 5.1	How would you characterize the relationship between the District Department	
	of Agriculture and the rest of the Metropolitan, Municipal, or District Assembly?	13
Figure 5.2	Most important consideration guiding agricultural priorities in district	
	development plan (%)	14
Figure 5.3	Identifying challenges to agricultural policy planning and implementation	
	within district (% who agree)	15
	Relationship between number of agricultural household and extension staff	18
_	One area of investment that would improve your ability to be an effective DDA	18
0	Distribution of MMDA Actual Agricultural Expenditures by Year, Real Terms	22
Figure 6.2	Deviation between Average Budgeted and Average Actual Expenditures, by	
	Selected Sectors	23
Figure 6.3	Distribution of Actual Agricultural Expenditures per Agricultural Household	
	across Districts (Real terms)	24
_	Source of Funding for Agricultural Expenditures, Average Budgeted (2012-2016)	25
Figure 7.1	If roads in your community were filled with potholes, who is the first person you	
	would talk to in order to address the situation? (Top four responses)	29
Figure 7.2	If there were insufficient agricultural extension agents for farmers in this district,	
	who would be the first person you would talk to in order to address the situation?	
	(Top four responses)	29

ACRONYMS

ACBIO African Center for Biosafety

AISE Ethiopian Agricultural Inputs Supply Enterprise

CAN Calcium Ammonium Nitrate
CIF Cost, Insurance and Freight

CFR Cost and Freight

CGIAR Consultative Group on International Agricultural Research

CSO Central Statistical Office
CV Coefficient of Variation
DAP Diammonium phosphate

FAO Food and Agriculture Organization of the United Nations

FAOSTAT FAO Statistical Data Base

FEWS NET Famine Early Warning Systems Network
IITA International Institute of Tropical Agriculture
IFDC International Fertiliser Development Center

IRRI International Rice Research Institute

Kg Kilogram

NPK Nitrogen, Phosphorus and Potassium

SOA Sulphate of Ammonia

SRID Statistics and Research Information Directorate

SSA Sub-Saharan Africa
TSP Triple Super Phosphate

U.K. United Kingdom

USA United States of America

1. INTRODUCTION

From Kenya to Zambia, Nepal to Pakistan, devolution of agricultural functions to lower tier government administrations has become an increasingly common aspiration in developing countries over the last decade. Ghana, which consistently has been committed to decentralization since the country's transition to democracy in the early 1990s, also aims to embrace devolution. Despite the 1993 Local Governance Act, which provides the legal framework for implementing effective decentralization, Ghana thus far largely has practiced deconcentration whereby the national government oversees policy planning and local governments pursue implementation (Ayee and Dickovick 2010). To move closer to devolution, the Government of Ghana has pursued a number of reforms, including a National Decentralization Action Plan (2004), a Local Government Instrument (2009), a Decentralization Policy Framework (2010), and a Second National Decentralization Plan (2012). In 2016, Parliament passed the Consolidated Local Governance Bill to further streamline the range of decentralization laws and frameworks and eliminate inconsistencies.

Research on the implications of decentralization for service delivery is heavily concentrated on health and education (e.g. Channa and Faguet 2016; Hecock 2006; Khalegian 2004). However, the Ghanaian case study allows for examining the impact of decentralization, and especially devolution, on agricultural goods and services. Agriculture, along with public works and social welfare/community development, is one of the first sectors to be legally devolved to the country's 216 Metropolitan, Municipal, and District Assemblies (MMDAs). This major institutional shift raises a number of key research questions. First, have agricultural civil servants at the MMDA internalized their shift from central to local employees? Secondly, does devolution influence the priority accorded to agricultural expenditure at the MMDA level? Thirdly, has devolution improved government responsiveness and accountability to citizen priorities as well as the delivery of agricultural services?

To address these questions, this study analyzes primary data collected from 960 rural households and 80 District Directors of Agriculture (DDAs), district level budget data from 2012 to 2016, and semi-structured interviews with a range of national and local government stakeholders. Engaging with such a broad range of actors enables a comprehensive analysis of the strengths and weaknesses of the devolution reforms thus far, capturing both the horizontal (cross-ministerial) and vertical (national-local) coordination processes and bottlenecks. Though based on analysis for Ghana, the findings from this study have implications for a broader array of countries in Africa and beyond.

The following section discusses the theoretical and empirical findings on decentralization more broadly before turning to a description of Ghana's reforms, specifically within the agricultural sector. Subsequently, the data sources used for the paper are detailed. This is followed by an analysis of the impacts of devolution on the DDAs. Since funding constraints are their main concern, actual and budgeted sectoral expenditures from the district composite budgets subsequently are analyzed. Citizens' perceptions of decentralization and agricultural devolution, as well as their engagement in local government, are then described. The final section concludes by contextualizing the findings given broader trends, including the introduction of a new national agricultural program, Planting for Food and Jobs, and the country's historic tradition of subdividing MMDAs.

1

¹ Interviews were conducted in October 2016 and May 2017. The household and DDA surveys were implemented between March 23-April 11, 2017 and May 3-24, 2017, respectively.

2. DEVOLUTION, SERVICE DELIVERY, AND AGRICULTURE

Decentralization encompasses a wide range of forms. Devolution is the most comprehensive type of decentralization, involving the transfer of authority in fiscal, administrative, and political decision-making matters. Ideally, devolution enables democratically-elected decisionmakers to have autonomy to raise revenue and to make decisions over development priorities in concert with citizens and with a large degree of independence from the central government (see Cheema and Rondinelli 2007; Kathyola and Job 2011). Delegation, by contrast, entails the transfer of responsibilities to local governments and to certain semi-autonomous public bodies (Kanyinga 2016). Deconcentration is the most limited form whereby the central government still retains authority over decision-making while local government is solely responsible for implementation.

From a theoretical angle, decentralization is considered to have a number of benefits for service delivery by bringing decisions closer to the people who are most directly affected by them. Oates (1985) argued that citizens can be more demanding of the services they receive due to their better oversight abilities at the local level. In turn, they may feel more empowered to participate in decision-making and communicate their demands at that level than through national authorities, who may be too distant or anonymous for them (Brinkerhoff and Azfar 2010). In turn, local governments obtain better information about the services needed in their areas of jurisdiction and can be held accountable for their decisions by local voters (Faguet 2012).

From an empirical perspective, multiple reviews on the impacts of decentralization unveil mixed findings that unsurprisingly depend on the country and service under discussion (see Ahmad and Brosio 2009; Treisman 2007; World Bank 2009). One of the most robust analyses of the existing literature finds that decentralization may improve the technical outcomes for a variety of services, such as test scores or infant mortality rates, with some moderate evidence that it also enhances preference matching (Channa and Faguet 2016).

Some key insights about why decentralization may not have its intended effects have also emerged. First, the accountability gains from decentralization can only emerge if an authority legitimately has discretion to perform a function (World Bank 2009). This requires fiscal decentralization in the form of both expenditure and revenue assignment. Problematically, many developing countries lack sufficient own source revenues. This undermines downwards accountability to citizens because such own source revenues usually can be used at the discretion of local government, enabling local government to be more responsive to citizen demands (Faguet 2008). Furthermore, it strengthens the linkage between taxation and accountability, known as the fiscal exchange hypothesis (see Timmons 2005). By contrast, transfers may be earmarked for certain expenses by the central government and therefore not spent in a way that is reflective of local demands. While some degree of transfers are needed to fulfill responsibilities that cannot be financed with own source revenue, if local governments rely heavily on central government transfers, it also becomes a challenge to distinguish whether the local or central government should be sanctioned (or rewarded) for service delivery. Moreover, a lack of expenditure autonomy undermines their ability to engage in preference matching. Secondly, Braun (2000) notes that for decentralization to have an effect on policymaking, local policymakers must have the ability to block or initiate policy change. Yet, local governments often lack the authority to enforce regulatory decisions and laws, or these are often shared concurrently with the central government, further undermining accountability (World Bank 2009). Thirdly, while local governments may have a better sense than central governments of citizen

priorities and needs, they often have less capacity to implement projects and programs (Bardhan 2002). ²

Most analyses of decentralization in developing countries focus on health or education, with scant research on the impact on agricultural services. In some ways, this is surprising given that such a large share of the population in these countries depend on the agricultural sector for their livelihoods. Moreover, given variations in agro-ecological conditions, agricultural services need to be properly differentiated at the subnational level and therefore, agricultural producers would benefit from greater coherence between their local preferences and local government expenditures for, and within, the sector. At the same time, agriculture is relevant to only a select group of residents, especially those in rural areas, compared with health and education, which have relevance to everybody. As such, one would expect that decentralization results in greater variation of agricultural spending and services at the subnational level than for other sectors.

The lack of research on the topic is even more notable given that a growing number of governments have, or plan to, devolve agriculture to subnational governments. Some countries are just embarking on this process. For instance, in 2015, Nepal passed a new Constitution with the aim to transition to a federal country with seven elected provincial governments, 77 district governments, and 753 municipalities and villages. The country is currently devolving agriculture functions to newly elected local government leaders, with "agricultural and livestock development" a provincial power and "agriculture and animal husbandry, agro-products management, animal health, and cooperatives" devolved to the municipal/village level (Kyle and Resnick 2016). In 2014, Zambia's cabinet issued Circular Number 10, which initiated the first of a three-phase devolution exercise that formally began in early 2015. As a result, extension services were to be devolved away from the Ministry of Agriculture and Livestock and to the approximately 110 districts. Resources for devolved functions were supposed to be transferred directly to the council treasuries in 2016 (GRZ 2014).

Other countries now have a few years of experience with agricultural devolution. In Pakistan, the 18th Amendment to the constitution passed in 2010 stipulated that 17 ministries, including food and agriculture, should be devolved to four provinces. Subsequently, more than 61,000 civil servants were transferred to provincial governments and the federal ministry of agriculture was dissolved (Resnick and Rana 2016). Four years after the reform though, there was no noticeable change in expenditures for agricultural development in the provinces vis-à-vis the pre-devolution period. More problematically, the provincial governments lacked the capacity to formulate rural development policy and engage in implementation (Resnick and Rana 2016).

Kenya implemented a devolved governance structure in 2013 after adopting a new constitution in 2010. The new 47 counties became responsible for health, agriculture, urban services, and local infrastructure. Despite a commitment to transparency and public participation in decisions over these services, there was initial confusion about the roles and responsibilities of the different decentralized actors. In turn, this hindered accountability mechanisms. Moreover, limited resources and capacity undermined efforts to reach out to citizens to integrate their feedback into budget and planning processes (World Bank 2015). A key challenge has been with respect to personnel management. Before devolution, there were an estimated 4,000 agricultural, livestock, and fisheries

3

² The structure of local government can also matter. In some countries, there are strong executives who exert veto power over policy decisions. This may help with efficiency but undermine representation among all local council members. Such executives may be elected, either popularly by constituents or indirectly by their council members, or politically appointed. This may contrast with a strong council system whereby a politically neutral administrator is appointed to manage functions, but this requires a high level of local government capacity for implementation (World Bank 2009).

extension workers at the district level. Counties, which are now in charge of extension, have yet to fully absorb these staff and some have instead chosen to recruit new staff. This resulted in two parallel extension service systems, which has been a burden on budgets and operations and has resulted in a total disruption of services in some new counties (World Bank 2014).

3. THE DEVOLUTION PROCESS IN GHANA

Ghana's devolution process commenced in 2009 when Parliament passed Local Government Instrument 1961 (L.I. 1961), which stipulated four key reforms. First, selected deconcentrated departments, known as Shadow 1 areas, were to function as devolved departments. Shadow 1 areas were devolved first because such decisions only involve an administrative directive rather than an amendment of a legislative act, which governs many of the Shadow 2 areas that were legally set up as centralized departments of the civil service. Secondly, it empowered the newly devolved departments with a variety of functions. Thirdly, L.I. 1961 introduced the composite budget system, which integrates the budgets of all the separate departments of the MMDAs into the overall budgets of the MMDAs. Fourthly, the staff of the departments of the MMDAs were to be transferred from the national civil service to the newly established Local Government Service (LGS). Beginning in 2011, over 33,000 staff were transferred from the central government to the MMDAs. After identifying a staffing gap of more than 20,000, the Ministry of Finance and Economic Planning (MoFEP) agreed to recruit an additional 2,600 MMDA employees. This, however, preceded the creation of 45 new districts in 2012 (shifting from 170 to 216 districts), which further exacerbated staff vacancies (Mogues and Omusu-Baah 2014).

As a Shadow 1 area, agriculture was one of the initial sectors to be devolved (see Table 3.1). The L.I. 1961 stipulated that a Department of Agriculture should be established within the MMDAs. At the same time, the Crops Services Division, Agricultural Extension Services Division, and Department of Agricultural Engineering would cease to exist as separate entities at the MMDA level and instead have their functions incorporated into these new District Departments of Agriculture (GoG 2009). In 2012, this transition was formalized with agriculture becoming part of the MMDA administration. According to LI 1961 (2009), the agricultural departments of the districts were allocated 25 functions, ranging from the provision of extension services, formulating and implementing agricultural policy for the MMDA within the framework of national policies, assisting with on-farm adaptive research, promoting soil and water conservation measures, assisting in developing early warning systems on animal diseases, and promoting agro-processing and storage (GoG 2009).

Due to composite budgeting, compensation, goods, and services for agriculture are covered through funds that go directly to the MMDAs from the Ministry of Finance and Economic Planning (MoFEP) while assets and national programs, such as the Fertilizer Subsidy Program, are still covered by the Ministry of Food and Agriculture (MoFA). Recruitment for the MMDA departments of agriculture has occurred through the LGS and agricultural planning is coordinated between MoFA and the National Development Planning Commission (NDPC), the latter of which also oversees the district-level development plans.

These broader relationships need to be understood vis-à-vis the existing institutional structure of the MMDAs. The 216 MMDAs in Ghana all have the same structure internally and include both a political and administrative branch. On the political side, 70 percent of the MMDA members are elected by citizens in local elections every four years. The remaining 30 percent are appointed by the president. This includes the most powerful member of the MMDA, the District Chief Executive

³ The 2016 Local Government Bill envisions all sectors under Schedule 1 and 2 functions to ultimately be devolved (GoG 2016).

⁴ Not all agricultural functions have been devolved. Plant protection and veterinary services remain at the central level.

(DCE), who is equivalent to a mayor. Members of Parliament (MPs) who represent constituencies in each district are *ex-officio* members of the MMDAs. Elected assembly members serve four-year terms but can be re-elected indefinitely. By contrast, the DCEs can serve no more than two consecutive four-year terms (CLGF 2016). On the bureaucratic side, the head civil servant is the District Coordinating Director (DCD). Approximately 120 bureaucrats work in each local government (Brierley 2017). This includes the heads of the departments of which, since L.I. 1961, there are 11 in the districts, 13 in the municipalities, and 16 in the metropolitan assemblies.

Table Error! No text of specified style in document..1 Distribution of Responsibilities across Sectors

Shadow 1 (Devolved)	Shadow 2 (Non-Devolved)
Central Administration	Physical Planning
Works Department	Education, Youth, and Sports
Agriculture	Disaster Management
Social Welfare and Community Development	Health
Legal*	Trade and Industry*
Waste Management*	Natural Resource Conservation*
Urban Roads*	Finance +
Budget and Rating*	Birth and Death +
Transport*	

Notes: *Indicates that these are additional responsibilities for the municipal assemblies.

The DCE has considerable power by chairing the Executive Committee (ExCo), which also includes one-third of the Assembly members. The ExCo finalizes the MMDAs' composite budgets. After regional budget hearings, the ExCo will either accept or reject the budget and in the case of the former, it goes to the General Assembly, which includes all Assembly members from the political branch for approval.⁵ It is then submitted to the Regional Co-ordinating Councils, which collate and coordinate the budgets for the respective region before submitting to MoFEP (GoG 2016).

⁺Indicates that these are additional responsibilities for the metropolitan assemblies.

⁵ Interview with MoFEP's Fiscal Decentralization Unit (Accra), October 2016 and DCDs (Akwuapim South and Gomoa West), May 2017.

NDPC MoFA MoFE District development plans Composite budgets **RCCs** Intergovernmental transfers **RADs** District devt plans & MLGRD Ag planning & monitoring composite budgets Ag donor funding & national programs **MMDAS LGS** Hiring, firing, promotions Transfers & internally generated funds Department of MoFEP -Ministry of Finance & Economic Planning Agriculture Ministry of Food & Agriculture MoFA -NDPC -National Development Planning Commission MLGRD - Ministry of Local Government & Rural Service Delivery Development Regional Agriculture Departments RCCs - Regional Coordinating Councils MMDAs - Metropolitan, Municipal, District

Figure Error! No text of specified style in document..1 Diagram of Institutional Landscape as Agriculture Devolves

Source: Author's compilation based on stakeholder interviews.

These relationships are illustrated in Figure 3.1. Both upwards and downwards accountability is important for successful devolution. Upwards accountability helps ensure that funds are not misspent and that local performance stays on track. Downwards accountability is critical for citizens to assess the performance of local government officials. However, as Figure 3.1 suggests, the current institutional arrangements can lead to a mismatch between financial flows, personnel management, monitoring, and upwards accountability.⁶

Rural

Households

Assemblies

Local Government Services

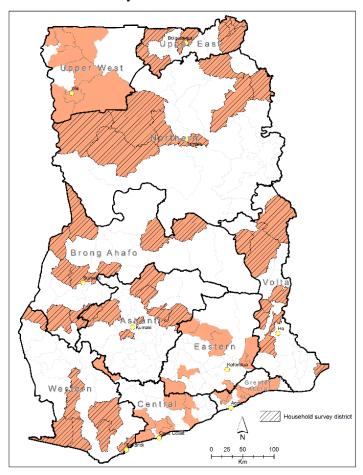
IGS -

⁶ Some of these mismatches may be addressed in the near future. For example, the 2016 Local Governance Bill stipulates that ultimately, the MMDAs will have the power to hire and fire their own staff (see GoG 2016).

4. DATA SOURCES

Aside from a comprehensive analysis of devolution from the perspective of the Regional Agricultural Departments (see Agyemang et al. 2014), there has been no detailed analysis of how the devolution process is affecting the agricultural sector at the MMDA level. Therefore, to determine how the institutional relationships in Figure 3.1 and within the MMDAs impact civil servants and citizens, this paper draws on four major sources of data. The first is an original survey with District Directors of Agriculture (DDA). The DDA survey focused on 80 of Ghana's 216 MMDAs that were randomly-selected, stratified by the 10 regions and proportional to the rural and urban populations for the region based on the 2010 National Housing and Population Census. Selected districts are shaded in Figure 4.1 below.

Figure Error! No text of specified style in document..2 Map of Selected Districts for DDA and Household Surveys



The second source of data is a survey of rural households in six regions: Ashanti, Brong-Ahafo, Northern, Upper East, Volta, and Western. Collectively, these regions span at least one of Ghana's six agro-ecological zones (Rain forest, Deciduous forest, Transition zone, Guinea savannah, Sudan savannah, Coastal savannah). Agro-ecological zones have implications for the types of crops that are grown, the nature of services that are required by farmers, and the expertise needed from the DDAs

and their staff. The same MMDAs that were selected for those six regions in the DDA sample were retained for the household surveys, resulting in 48 districts that overlap for the two surveys. These are identified with the hatched shading in Figure.

For each MMDA in the sample, two enumeration areas were randomly selected from the main list of communities available from the District Census Reports created by Ghana Statistical Services in 2014.⁷ A total of 10 households were selected within each enumeration area using a random walk procedure. Either the head of household or the spouse was eligible to participate in the survey, if they were 18 years of age or older. The household survey included a total of 960 households. As seen in Appendix (Table A.1), the selected districts provide a significant range of variation on potentially important indicators, such as poverty rates, share of employment in agriculture, and district capacity.

A third source of data is the composite budgets for all 216 districts provided by the Fiscal Decentralization Unit of MoFEP. The composite budgets provide detailed expenditure and revenue data, by source, across sectors and, at the time of writing, were available from 2012-2016.⁸ Finally, interviews were conducted with a broad range of stakeholders whose institutional affiliations are listed in the Appendix (Table A.2).

⁷ These district census reports are available at: http://www.statsghana.gov.gh/DistrictReport.html (last accessed November 20, 2017).

⁸ This data is available at http://www.mofep.gov.gh/publications/composite-budget. At the time of writing, the 2017 data was not available for three regions and therefore was not included in the analysis.

5. HOW HAS DEVOLUTION AFFECTED CIVIL SERVANTS?

An oft-overlooked element of decentralization reforms is the impacts on subnational civil servants and the frontline service providers that they supervise. To this end, the DDA survey provides a unique perspective to garner how these individuals, who play an essential role between MoFA and local citizens, have adjusted to their new roles and assess the major bottlenecks that they face. As seen in Table 5.1 below, the DDAs are relatively well-educated with most obtaining their highest degree in the agricultural, natural resource, economic, or animal sciences. In addition, the sample has, on average, worked for MoFA for 28 years. The entire sample has worked for MoFA from 2008 or earlier. As such, they have a good understanding of the sector and are able to assess how policy formulation and implementation has varied before and after devolution.

Table Error! No text of specified style in document..2 Snapshot of DDA Sample

Variable	Mean/Frequency (%)
Female	24.0
Age	54.3
Highest qualification achieved	
Diploma/certificate	1.3
Bachelor's	52.5
Masters	41.3
PhD	5.0
Focus of highest qualification	
Agricultural Economics & Engineering	23.8
Agricultural Extension & Technology	25.0
Agricultural or Business Management and administration	6.3
Agronomy	11.3
Animal/Veterinary Science	3.8
Crop Science & plant pathology	8.8
Economics	2.0
Environmental Management & Engineering	7.5
Horticulture	6.3
Human resources	1.3
Other	4.0
Share working in region where they were born	35.0
Length of time working with MoFA (Months)	337.0
Length of tenure in present district (Months)	44.7

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey

_

⁹ A similar approach has been used with District Agricultural Development Officers (DADOs) in Nepal (see Kyle and Resnick 2016).

5.1 Mandate, Motivation, and Responsibilities

Most of the DDAs (55%) view serving farmers as the most enjoyable part of their jobs while a further 15 percent enjoy designing and implementing policies. Almost the entire sample had a strong understanding of the intended purpose of devolution in terms of increasing responsiveness and engagement with farmers and improving coordination within the sectors. An illustrative set of explanations include:

- "Devolution is intended to bring agricultural services to the door step of the people."
 (Upper West Region)
- "It [devolution] seeks to bring all the various sectors of the economy together to work as a team." (Western Region)
- "It means you have to get all the resources you need on your own as a district and be proactive in doing your own things. You think on your feet and not to wait for a higher level to decide for you. To go to the people, get to know their needs." (Greater Accra Region)

However, they predominantly view their mandate as fulfilling national agricultural goals (see Table 5.2). This response does though tend to be associated with age, as well as the length of time the DDA has worked for MoFA. This makes intuitive sense given that DDAs who are older have tended to work for MoFA longer and therefore would have spent much of their careers fulfilling MoFA's goals. There are important implications of this given that a large share of the DDAs are within five years of retirement, suggesting that the new generation of DDAs may have different views on their responsibilities to MoFA vis-à-vis the MMDA.

Table Error! No text of specified style in document..3 Perceptions of Primary Job Responsibility

Options	Full Sample	Sample of DDAs younger than 50	Sample of DDAs 50 or older
My primary job responsibility is to help farmers in this district solve problems.	16.3	36.4	13
My primary job responsibility is to work with the MMDA to improve development in the district.	27.5	45.5	24.6
My primary job responsibility is to implement the policies and programs of MoFA to fulfill national agricultural development goals.	52.5	9.1	59.4
Don't agree with any of these options	3.75	9.1	2.9
Total	100	100	100
N	80	11	69

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey

Encouragingly, the plurality of respondents noted that they felt equally an employee of the MMDA and MoFA, and this was neither associated with age nor tenure length with MoFA (see Table 5.3).

Thus, even though a majority still see MoFA's objectives as guiding their activities, the DDAs generally have accepted their dual identities as both sectoral and local government representatives.

Table Error! No text of specified style in document..4 Self-Identification as MMDA or MoFA Employees

Options	Percent who Agree (%)
I feel more like an employee of the District Assembly than of MoFA	23.8
I feel more like an employee of MoFA than of the District Assembly	32.5
I equally feel like an employee of MoFA and of the District Assembly	43.8
Total	100

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey. N = 80.

In terms of motivating DDAs, the devolution reforms seem to have been largely positive, especially through the creation of the LGS and the establishment of clear promotion criteria. As one DDA noted, "There is now sanity in the promotion system" while another one clearly stated that "Promotions are regular when you are due and that is a motivation." The new system enables DDAs to be promoted to the District Coordinating Director if and when eligible, which provides a sense of mobility into a higher and more complex management position. Notably, DDAs were well-informed of LGS procedures, with 81 percent of respondents claiming they understand the majority of the procedures and criteria for staff hiring, promotions, and dismissals.

However, in terms of how the devolution has personally affected the DDAs, a dual burden is observed. On the one hand, more than half of respondents (51.9%) claimed that they now have more responsibilities than before devolution. On the other hand, more than half (54.4%) also state that they have less decision-making autonomy than they previously enjoyed. This is notable given that, among other objectives, devolution is intended to enhance local autonomy. However, this substantiates what is visible in Figure 3.1 whereby the DDAs must report to a wide range of actors beyond MoFA and the RADs. In addition, under the previous deconcentrated system, agricultural officers may not have felt as much oversight as they do now since regional capitals and Accra may have been far away. Now, they are overseen by the DCD who can monitor their efforts on a much more frequent basis.

Table Error! No text of specified style in document..5 How often have you met with the following groups over the last three months?

Group	Never	1-2 times	3 or more times
Agricultural service users	8.8	25.0	65.8
Researchers with CSIR	50.0	38.8	11.3
Regional Agricultural Department (RAD)	5.0	31.3	63.8
District Coordinating Director (DCD)	1.3	7.5	90.3
District Chief Executive (DCE)	57.5	17.5	25.0
MPs for constituencies in this district	56.3	35.0	8.8

Traditional authorities	33.8	47.5	18.8
Non-governmental organizations	23.8	37.5	38.8
Foreign donors	63.8	25	11.2

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N=80

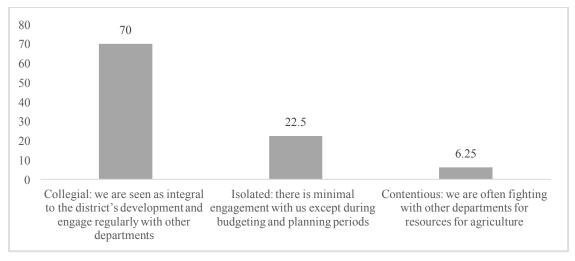
This is reflected in Table 5.4, which shows the distribution of meetings with various stakeholders over the last three months. Notably, the DCD is the individual with whom the DDAs interact with the most, followed by agricultural service users and the RADs. ¹⁰ Of concern is the relatively low level of engagement with researchers. In addition, they have a much lower level of contact with political actors, such as the presidentially appointed DCEs and elected MPs, as well as with traditional authorities.

5.2 Engagement with MMDA Colleagues

The incorporation of DDAs into the MMDAs has been a long process and inevitably has occurred more effectively in some locations than in others. In a basic sense, it is telling that only 25 percent of the district departments of agriculture are even located in the same building with the MMDA, which certainly cannot facilitate coordination. Yet, given the chance to characterize their relationship with the MMDA, 70 percent claimed it was collegial (see Figure 5.1 below).

Moreover, 79 percent of the sample claimed that their relationship with the MMDA has improved during their time as DDA in the district. Importantly, this pattern is not affected by the length of time the DDA has been in the district; i.e. both those who have been there for a few months and those who have been there for many years generally hold this positive view.

Figure Error! No text of specified style in document..3 How would you characterize the relationship between the District Department of Agriculture and the rest of the Metropolitan, Municipal, or District Assembly?



Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey

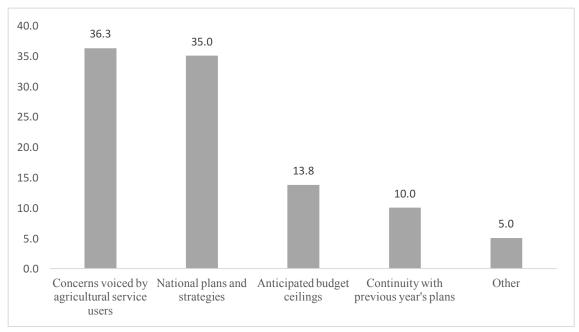
10 Interviewed DCDs confirm that they meet at least on a monthly basis with the heads of all departments in their Assembly

13

5.3 Agricultural Planning and Budgeting

In terms of agricultural planning and budgeting, the concerns of agricultural service users (e.g. farmers, fishermen/fisherwomen, cattle herders) constituted the major driver for planning. However, national goals still seem to matter a great deal as well. As seen in Figure 5.2, meeting national objectives as outlined in policies such as the Food and Agricultural Sector Development Policy, the Medium Term Agriculture Sector Investment Plan, or the Comprehensive Africa Agriculture Development Program were highlighted by 35 percent of the sample as being the main priority.

Figure Error! No text of specified style in document..4 Most important consideration guiding agricultural priorities in district development plan (%)



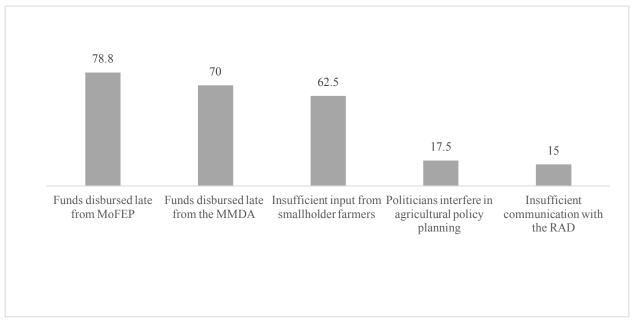
Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N= 80

However, when asked which stakeholders provided any feedback on district development plans in the previous year, only 32.5 and 48.7 percent noted that MoFA in Accra or their RAD, respectively, had provided minor or major feedback. The MMDA was noted as providing the most feedback by 55.8 percent of the sample. This may reflect that, unlike MoFA central or the RADs, the MMDAs only need to focus on their district when reviewing sectoral plans rather than multiple districts. At the same time, it suggests that MoFA at national level may be quite detached from knowing the agricultural activities planned by DDAs in many of the districts.

Figure 5.3 clearly identifies funding, both from MoFEP and then from the MMDA, as the major challenge for agricultural policy planning and implementation. These claims coincide with the views of interviewed DCDs who noted that departments of agriculture are unable to fund a majority of their activities and that while agriculture will always be in the budget to some extent, actual funding

shortfalls hinder implementation.¹¹ The third biggest challenge is the lack of input from smallholder farmers. Yet, this is also related to funding since many DDAs note that there is an insufficient budget for them to engage agricultural service users in the drafting of the district development plan, or to even communicate with them what is contained within the plan. This suggests a notable contradiction: while the DDAs believe the priorities of agricultural service users should be guiding policy planning, there is insufficient involvement of such users at the current time.

Figure Error! No text of specified style in document..5 Identifying challenges to agricultural policy planning and implementation within district (% who agree)



Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N= 80

An agricultural sub-committee within the MMDA can assist with the planning process and provide a forum for DDAs to discuss challenges with implementation. Encouragingly, 61.3 percent of the DDAs claimed their district had such a committee. However, there are some strong regional differences, with districts in the poorest and most rural regions, e.g. Northern, Upper East, and Upper West, disproportionately claiming that no such sub-committee had been established in their district.

Almost 90 percent of the sample noted that they would turn to the MMDA for funds from internally-generated revenue if there was a crisis in the district (e.g. avian flu, drought, flood). In other words, while giving the MMDAs control over disbursing resources may undermine the timeliness of distribution, it does provide some flexibility to the devolved sectors in extreme cases by giving the DDAs access to the Assembly's own generated revenue. In fact, 52 percent of the entire sample noted that during their time as DDA in the district, they have received some degree of internally generated funds (IGF), albeit a small amount, from the MMDA.¹²

-

¹¹ Interviews with DCDs in Akwuapim South and Gomoa West, May 2017.

¹² There is no statistically significant relationship with the length of time the DDA was in the district

As seen in Table 5.5 below, the composite budgeting process that was introduced as part of the devolution process is not viewed very favorably by the DDA sample. Two-thirds believe that it resulted in a decrease of disbursements for the sector, and 60 percent believe it worsened by the timeliness of disbursements.

Table Error! No text of specified style in document.. 6 Assessment of Composite Budgeting

Level of Disbursements	Percent who Agree (%)
Increased disbursements	7.9
No change	25.4
Decreased disbursements	66.7
Timeliness of Disbursements	Percent who Agree (%)
Improved timeliness	1.6
No change	22.2
Made it worse	76.2

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N = 63 because 17 DDAs were not serving in their current district in 2012 and therefore could not compare for the district.

When asked if the DDAs felt that they can effectively negotiate with other departments to obtain sufficient resources for agriculture during the composite budget planning process, 32.5 percent of respondents claimed they could (see Table 5.6 below). Of the remaining two-thirds who responded in the negative, the most commonly identified reason for this inability was that agriculture is viewed as less important than other sectors within the district. For instance, one respondent observed, "The District Assembly is usually concerned with physical structures and our department renders services" (Upper East) while another noted "They don't see us as a department that brings money to the district but rather that we take from them" (Greater Accra). One DCD from Central Region confirmed this challenge: "During composite budget preparation, much attention is given to physical projects. Politicians are interested in school blocks, CHPS compounds, things that are physical. Agriculture isn't tangible." A further 18.8% noted that negotiation is impossible in any case due to MoFEP-imposed budget ceilings.

¹³ Interview with DCD in Gomoa West, May 2017.

Table Error! No text of specified style in document..7 During the composite budget planning process, do you feel that you can effectively negotiate with other departments to obtain sufficient resources for agriculture?

Response	Share (%)
Yes	32.5
No, because agriculture is viewed as less important than other sectors for this district	25.0
No, because negotiating is impossible due to budget ceilings from MoFEP	18.8
No, because we lack sufficient budgeting experience	11.3
No, because non-devolved departments receive more direct support from their line ministries	5.0
No, because other departments receive even less funding than us	3.8
No, because we lack adequate data to justify our program costings	1.3
Don't know	2.5
Total	100

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N=80

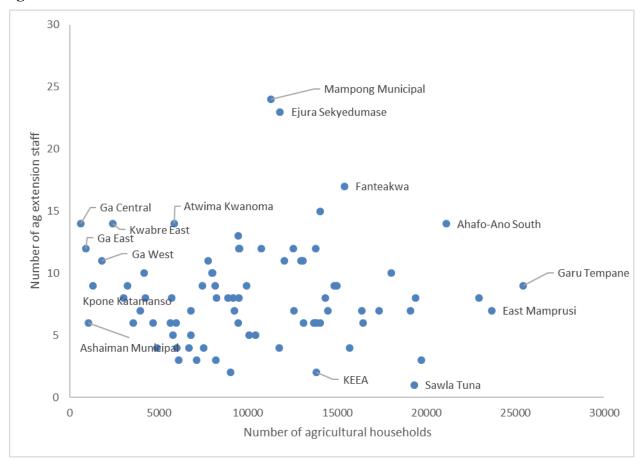
5.4 Staffing and Resources

A lack of resources obviously has an impact on staffing and resouces to service farmers. On average, DDAs are intended to manage a staff the size of 24 employees. However, with approximately 39 percent of staff positions vacant, few are actually managing full staffs. Moreover, the average number of agricultural extension agents that a DDA oversees is 8.3, ranging from just 1 in Sawla-Tuna Kalba district in Northern Region to 24 in Mampong Municipal district in Ashanti Region. Figure 5.4 indicates that there is not a positive relationship between the number of extension staff and the number of agricultural households. Instead, there are quite a number of districts, particularly in urban areas, where the number of extension staff is quite large given the comparatively small number of agricultural households. As a possible indication that resources continue to be centrally located, districts in the relatively more affluent regions of Greater Accra (Ga Central, Ga East, and Ga West) and Ashanti have the greatest share of fully staffed Departments of Agriculture.

A little more than half of the sample reported that the number of agricultural extension agents has decreased since they arrived in the district with 40 percent claiming there has been no change and the remainder (8.8 percent) observing an increase. The median ratio of agricultural extension staff to agricultural households in the sampled districts is 1,183 while the average is 1,780.

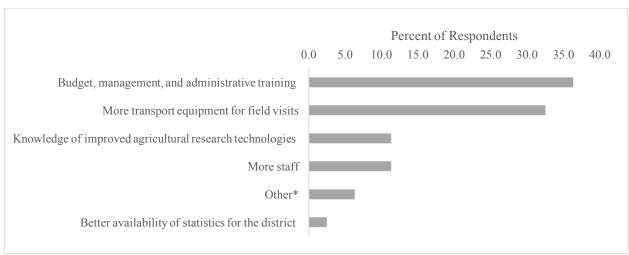
Aside from staff, most DDAs (more than 85 percent) claim that they lack a proper office telephone, internet access, or a photocopier. Yet, as seen in Figure 5.5, more transport equipment for field visits was identified by the most DDAs as the one area of investment that would make them more effective DDAs, followed by specialized budget, management, and agricultural administration training. A need for better data, either on improved technologies or economic statistics for the district, were deemed less important.

Figure Error! No text of specified style in document..6 Relationship between number of agricultural household and extension staff



Source: Calculated from GSS (2014) and IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey

Figure Error! No text of specified style in document.. 7 One area of investment that would improve your ability to be an effective DDA



Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N=80

Notes: *The "other" category included requests to know more about e-agriculture and more training on how local government functions.

Indeed, the DDAs are on average relatively committed to making field trips to see agricultural producers. In fact, almost 63 percent admit to having 3 or more field visits with farmers per month. Yet, the lack of sufficient funding means that they are often funding such trips to a large extent from their own personal resources. Table 5.7 shows that a majority believe that this trend has worsened since the devolution transition.

Table Error! No text of specified style in document..8 Do you feel that you personally fund more field visits now that you did prior to the 2012 devolution transition?

Response	Percentage (%)
Yes, I personally fund more visits now	72.7
No, I personally funded more visits before	10.4
There is no change for me	3.9
Don't know	1.3
Not in the district prior to 2012	11.7
Total	100

Source: IFPRI-CDD District Director of Agriculture Devolution of Agriculture Survey; N = 80

On balance then, the devolution transition has many benefits for these agricultural civil servants. The DDAs show a promising level of technical expertise relevant to the agricultural sector, and their integration into the MMDAs has exposed them to further opportunities to enhance their budgeting and management competencies. The DDAs express that they have greater social mobility than before and, in most districts, report that they have a collegial relationship with their broader MMDA colleagues. The significant danger is that the decline in financial resources, which diminish staff resources and supplies to serve and engage with agricultural producers, will demoralize these civil servants and discourage others from serving this important role, especially as more than half of the DDAs in these 80 sampled districts are within five years of retirement.

6. BUDGETED AND ACTUAL EXPENDITURES

Given the oft-repeated concerns by the DDAs about financing, the district composite budgets available from MoFEP were used to assess whether the subjective interpretations of the DDAs regarding the availability of financing corresponds with more objective data on budgeted and actual expenditures for agriculture. Table 6.1 below focuses on the subset of sectors that fall under the mandate of all MMDAs, rather than the more expansive set of sectors that are relevant to just the municipal and metropolitan assemblies. The data focuses on 2012, when devolution officially began for agriculture, until the year for which the most up to date data is available. On the one hand, it shows that in the budgeting process, agriculture does indeed receive fewer resources than some other key sectors. Moreover, central administration declined in the budget since 2012, perhaps reflecting corrections after the single spine wage adjustments that year, which had caused a ballooning fiscal deficit (Younger 2016). The resources for central administration though seemed to have gone into the devolved sector of works or into the non-devolved sectors of health while agriculture's share plateaued. These trends largely confirm the DDAs' sentiments that because they tend to focus more on services than physical structures, like schools or community-based health planning and services (CHPS) compounds, they receive less money to spend. On the other hand, if Ghana is interested in agricultural transformation, which requires investments beyond the narrow agricultural sector as well, then these trends look more favorable. Specifically, investments under "works" include increasing access to feeder roads and rehabilitating boreholes, both of which are important for farmers' market access. Moreover, some resources allocated under "central administration" are intended for rehabilitating trading markets in towns and villages, which play a key role in national agricultural supply chains.

Table Error! No text of specified style in document..9 Average MMDA budgeted expenditures by sector as share of total expenditures (%), across districts

Sector	2012	2013	2014	2015	2016
Agriculture*	7.9	9.2	7.9	6.3	7.4
Central Administration	52.3	47.8	47.9	45.5	41.2
Disaster Prevention	0.6	0.5	0.9	1.0	0.7
Education, Sports, & Youth	18.6	19.2	17.1	18.8	17.3
Health	8.3	9.1	9.2	10.4	13.7
Physical Planning	0.9	0.8	1.5	1.2	1.6
Social Welfare & Community Development*	0.9	2.0	2.6	3.0	3.2
Works*	10.5	11.4	13.0	13.7	14.9
Number of districts	112	126	152	116	171

Source: Calculated from district composite budgets from MoFEP.

Notes: The shares are based on sectoral totals that aggregate to the district level departments and exclude sectors that are only relevant to the municipal and metropolitan assemblies. The 2015 is only available until June of that year. The 2012 data captures the districts before they were split to create 46 new districts.

^{*} Symbolizes devolved rather than deconcentrated sector.

In terms of actual spending on agriculture, Table 6.2 shows that this value has also declined over time as a share of total actual expenditures. ¹⁴ Public works, which is another devolved sector, has increased a little more than threefold since 2012 while agriculture has fallen. Non-devolved sectors such as education also comprise a larger share of expenditures while health is beginning to catch up. In terms of actual amounts, Figure 6.1 shows that the distribution of agricultural spending across districts became more concentrated after 2012 with the median amount between GHS 155,000 in 2013 and 2014 to GHS150,000 in 2015. More problematic is the variability for the same district from year to year. The example of Gomoa West in Central Region is typical, with agricultural expenditures equal to GHS 364,148 in 2012, falling to GHS 131,403 in 2013, and rebounding only slightly to GHS 151,845 the subsequent year.

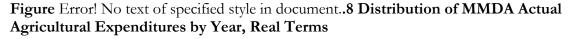
Table Error! No text of specified style in document..10 Average MMDA actual expenditures by sector as share of total expenditures (%)

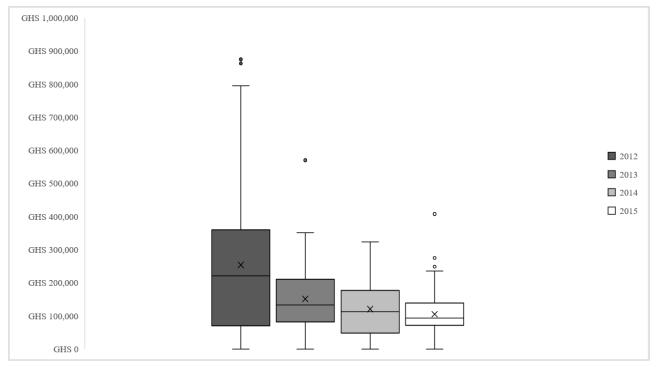
Sector	2012	2013	2014	2015
Agriculture*	11.5	11.8	8.8	6.6
Central Administration	59.7	56.7	56.9	57.0
Disaster Prevention	0.4	0.6	0.8	0.6
Education, Sports, and Youth	15.7	15.1	13.8	14.2
Health	4.9	5.2	5.4	7.8
Physical Planning	0.7	1.2	1.2	1.5
Social Welfare & Community Development*	2.6	3.4	3.5	3.2
Works*	4.4	6.7	9.4	11.6
Number of districts	112	126	152	116

Source: Calculated from district composite budgets.

Notes: The shares are based on sectoral totals that aggregate to the district level departments and exclude sectors that are only relevant to the municipal and metropolitan assemblies. The 2015 is only available until June of that year. The 2012 data captures the districts before they were split to create 46 new districts.

^{*} Symbolizes devolved rather than deconcentrated sector.



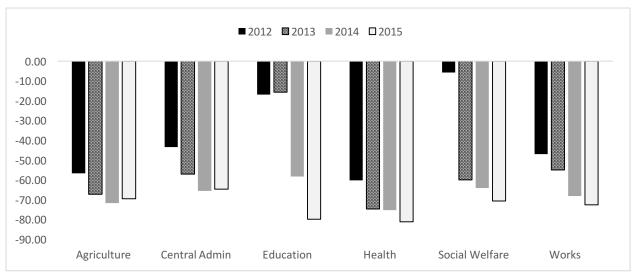


Source: Calculation from district composite budgets for 72 districts with actual expenditure data available for the same districts across all four years. The budgets are all in constant 2012 GHS.

Notes: The line in the middle of the box signifies the median while the X indicates the mean. The top of the boxes capture the third quartile and the bottom of the boxes refer to the first quartile. The bars extending downwards and upwards refer to the minimum and maximum values, respectively, while the circles indicate outliers.

Nonetheless, Figure 6.2 shows that while agriculture receives fewer resources in both budgeted and actual terms than some other sectors, all sectors are hurt by large gaps between the what they planned for and what is actually spent that is symptomatic of broader macroeconomic challenges that extend beyond devolution (Younger 2016).

Figure Error! No text of specified style in document..9 Deviation between Average Budgeted and Average Actual Expenditures, by Selected Sectors

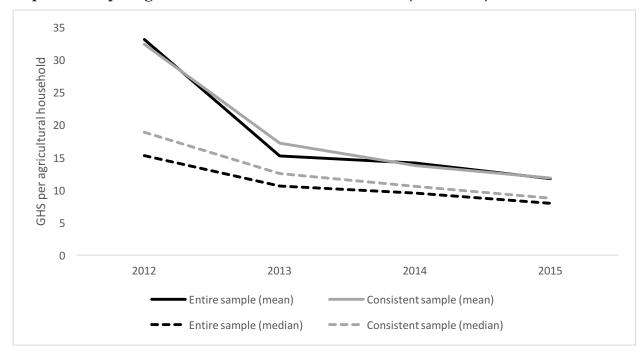


Source: Calculated from district composite budgets.

Notes: Deviations are matched so that, in each year, only the districts that had both budgeted and actual data are compared. The number of districts per year are reported in Tables 6.1 and 6.2.

Figure 6.3 below shows a time trend between 2012, when devolution began, until the most recent year for which data is available. This shows that indeed, the number of GHS spent per agricultural household by district declined substantially since 2012. Given that there is not full data available for all districts for all years, the time trend was also calculated for a consistent sample that includes only those districts that only had full time trend data. Regardless, the trend is almost entirely the same. In three of the four years, the highest ratio of agricultural expenditures to agricultural household occurred in urban areas and specifically Ga East and Ga West, which are municipal districts in the Greater Accra Region. For instance, in 2015, Ga East spent GHS 328 per agricultural household compared with an average of GHS 19 across all districts.

Figure Error! No text of specified style in document..10 Distribution of Actual Agricultural Expenditures per Agricultural Household across Districts (Real terms)



Source: Calculated from district composite budgets from MoFEP and the district census data. Notes: "Entire sample" refers to calculations conducted over the entire range of available data for that year; N= 126 in 2012, 149 in 2013, 157 in 2014 and 135 in 2015. "Consistent sample" uses the smaller set of districts where data is available for all years, resulting in N=72.

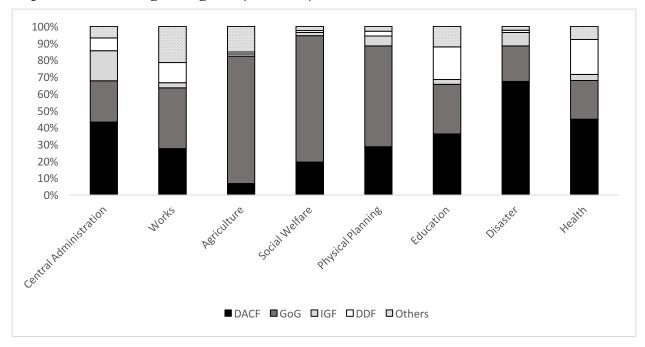
Figure 6.4 below shows that, overall, the MMDAs depend heavily on transfers from the central government, either directly or through the District Assemblies Common Fund (DACF). The agriculture sector depends more heavily than any other sector on money from the central government (GoG) in the budgeting process. In the districts that allocated money for agriculture, they were depending on the GoG for about 75 percent of their budget expenditures. Contributions to the "Other" category, which comprise about 15 percent of the MMDA agricultural budgets, include donor funding as well as national programs that have since ended, such as the Agriculture Sector Support Investment Program (AgSSIP) and Canadian support to MoFA. Notably, the sector depends less on the DACF, the main form of intergovernmental transfers, than others, including the other devolved sectors of public works and social welfare. The DACF is often undermined by its diversion to central government expenditures and statutory programs, such as the National Health Insurance Scheme or the youth employment program. Moreover, it is heavily earmarked for development expenditures, especially infrastructure (Gilbert et al. 2013; World Bank 2016). In the agricultural sector, the DACF often tends to be used to fund the Farmers' Day Celebration at the cost of between GHS 15,000-45,000 to recognize the contribution of farmers to the development of

¹⁵ Following the way that revenues are characterized in the composite budgets, the "Other" category also includes the portion of the District Assemblies Common Fund that goes to MPs, known as the MPs' Common Fund. As such, the DACF in Figure 10 purely captures that which goes to the MMDA. Other also encompasses funding from the Urban Development Grant which is a donor-supported fund aimed at urban councils.

¹⁶ The 2016 Consolidated Local Government Bill aims to address some of the problems with the DACF

the country. In some districts, DACF funds are also used for the renovation of department offices, constructing warehouses, and constructing housing quarters for agricultural sector employees.¹⁷

Figure Error! No text of specified style in document..11 Source of Funding for Agricultural Expenditures, Average Budgeted (2012-2016)



Source: Calculated from the MMDA composite budgets.

Notes: Number of districts (year): 167 (2012), 181 (2013), 204 (2014), 192 (2015), 171 (2016)

While expenditure autonomy is guaranteed under law in Ghana (Gilbert et al. 2013), this is not defacto possible given earmarks for transfers and how low internally generated funds (IGF) are in most of the MMDAs. Even so, among the IGF that is expected, Figure 6.4 indicates that the Assemblies decide to allocate less IGF on average to agriculture than to all other sectors. This again reinforces the impression that the Assemblies may see less benefit to financing this sector than to others. Finally, agriculture also benefits very little from distributions from the District Development Facility (DDF), which is supported by a set of donors who use the DDF to support capacity building and reward districts that meet specific performance criteria (Gilbert et al. 2013).

¹⁷ See detailed expenditure plans in the composite budgets

7. CITIZEN PERCEPTIONS OF DEVOLUTION

Do these financial constraints affect citizens' perceptions of decentralization in general and devolution more specifically? Devolution is ultimately about improving accountability between citizens and local governments while improving the matching of citizen preferences to the services that are delivered. The household survey data enables us to examine the extent to which these outcomes have materialized, with a specific focus on agricultural producers.

Table 7.1 provides an overview of the characteristics of those included in the sample. As noted earlier, the sample was disproportionately rural. One consequence of this is that more than 60 percent of the sample is engaged in agriculture, either as subsistence or commercial farmers. Notably, almost three-quarters of the sample only have a primary education or less. In addition, most respondents were born in the district, suggesting that they can assess local governance dynamics in the district over time. Even among those who migrated to their current district, 90 percent have lived in their current district for 10 years or more.

Table Error! No text of specified style in document..11 Summary Statistics of Household Survey Sample

Indicator	Mean/ Share (%)		
Age	46.0		
Rural	87.5		
Female	42.9		
Born in district	72.0		
Education levels			
No formal schooling	40.5		
Informal schooling (religious or language)	0.5		
Some primary	15.3		
Primary school completed	15.9		
Some secondary	11.7		
Secondary school completed	10.5		
Post-secondary qualification	4.3		
Some university	0.2		
University completed	1.0		

Table 7.1 Continued

Indicator	Mean/ Share (%)		
Primary occupation			
Subsistence agriculture	42.4		
Commercial agriculture	19.2		
Trader/hawker/vendor	15.0		
Skilled manual worker	4.8		
Professional (teacher, nurse, lawyer, doctor)	3.6		
Unskilled manual worker	3.3		
Not working but looking for work	3.3		
Not working and not looking for work	3.3		
Retail/shopkeeping	2.2		
Other	2.1		
Ethno-linguistic group			
Akan	46.1		
Mole-Daghani	27.4		
Ewe	12.7		
Grusi	4.0		
Guan	3.9		
Outside Ghana	2.0		
All other tribes	1.7		
Mande	1.4		
Ga-Dangme	0.9		

Source: IFPRI-CDD Ghana Decentralization and Agricultural Services Survey

7.1 Awareness, Accountability, and Engagement in Local Government

A sizable share of respondents in the sample (60 percent) admitted that they either did not know what the term "decentralization" signified or that the concept had no meaning for them. This is problematic since devolution is a form of decentralization and Ghana has, as mentioned earlier, pursued longstanding efforts to deepen decentralization in the country. A logistical analysis that examines who is most likely to understand the concept indicates that gender, wealth and education play an important role. Wealth is captured through an asset index of 8 items that a typical household might own (car, television, mobile phone, bicycle, refrigerator, electric fan, electric or gas stove, and computer). The findings in Table 7.2 indicate that women are significantly less likely to be able to explain what decentralization means, while those with more education and who are higher on the asset index are more likely to understand what the concept means. Those who have engaged in different forms of political participation, measured as an index that encompasses attending a community meeting, participating in a political rally, or engaging in a protest or demonstration, are also associated with a better understanding of the concept.

Table Error! No text of specified style in document..12 Logit analysis of who understands the concept of decentralization

Variable	Coef.	Std. Err.
Female	-0.862***	0.150
Age	0.007	0.005
Rural	-0.270	0.216
Education level	0.133***	0.037
Asset Index	0.779**	0.351
Political participation index	0.431*	0.261
Constant	-0.928**	0.371

Notes: N=921; ***p<0.00, **p<0.05, *p<0.10

Nonetheless, there is a significant degree of intuitive understanding that local government should ideally be responsive to citizens. This manifests in a number of ways. First, when asked which types of different entities they trusted the most, respondents showed a higher level of trust in elected local government representatives, including their member of parliament (MP) and their elected assembly person, rather than in non-elected members of local government (see Table 7.3). Secondly, while only one-third knew the names of their DCE, a full two-thirds knew the name of their elected assembly member. This suggests that the process of elections forces citizens to have a greater level of awareness of the individuals working on their behalf within local government. Thirdly, half of the sample expressed a preference for electing their DCE rather than have him/her appointed by the president, with the remainder either opposing this (17.6 percent) or not having an opinion (33 percent). Fourthly, a very high share (87 percent) noted that they would vote out their elected assembly person if s/he did not deliver on campaign promises, indicating that respondents view their vote as a tool to sanction local politicians. Finally, when faced with two service delivery scenarios, related to poor agricultural extension services and roads filled with potholes, respondents by far identified their elected assembly member as the first person they would contact to rectify these problems (see Figures 7.1 and 7.2).

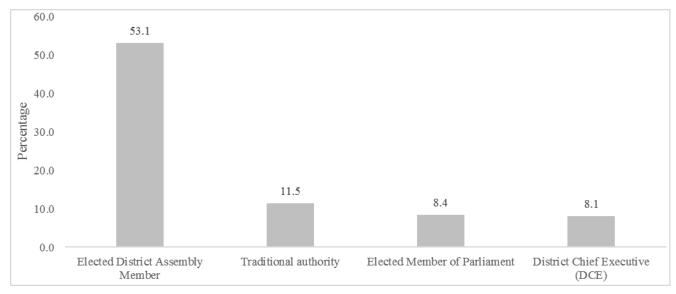
Table Error! No text of specified style in document..13 Share who trust somewhat or a lot

Trust in	Share (%)
Traditional authorities	75.9
Elected MP	74.2
Elected Assembly person	71.4
Political parties	55.0
District Chief Executive	53.0
MMDA civil servants	46.9

Source: IFPRI-CDD Ghana Decentralization and Agricultural Services Survey

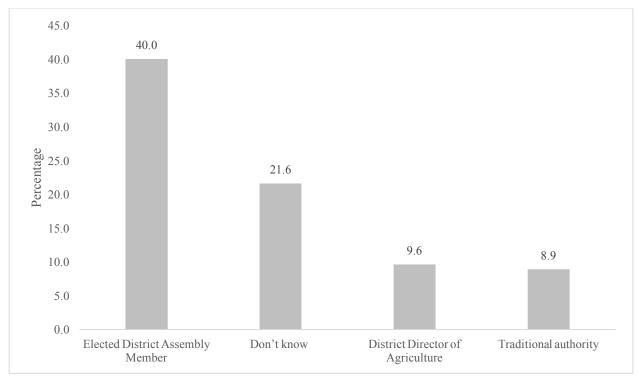
¹⁸ Approximately 81 and 88 percent of the sample's respondents claim to have voted in the September 2015 local elections and the December 2016 national elections, respectively

Figure Error! No text of specified style in document..12 If roads in your community were filled with potholes, who is the first person you would talk to in order to address the situation? (Top four responses)



Source: IFPRI-CDD Ghana Decentralization and Agricultural Services Survey, N=960

Figure Error! No text of specified style in document..13 If there were insufficient agricultural extension agents for farmers in this district, who would be the first person you would talk to in order to address the situation? (Top four responses)



Source: IFPRI-CDD Ghana Decentralization and Agricultural Services Survey, N=906 for overall sample since only those who owned land, identified their occupation as farmers, or planted crops in the previous agricultural season were exposed to this vignette.

In terms of other modalities of participating in local government beyond voting, the findings are more pessimistic. Less than 30 percent of the sample were aware that there was a development plan for their district, and far fewer have ever contributed suggestions to the plan. In addition, only five percent of the sample had ever attended a budget hearing in their district or region. These patterns largely reflect the conclusions of the DDAs and interviewed DCDs that participatory fora are not frequent due to resource constraints. However, one area of promise can be interpreted from comparing Figures 7.1 and 7.2 above. Both public works and agriculture are devolved sectors but, in the pothole vignette, hardly anyone (only 1.6%) noted they would approach the district works officer. By contrast, in the agricultural extension scenario, the district director of agriculture is identified as being the first person, after the elected assembly member, to be contacted. Although unfortunate that many still are unaware who to contact at all (21.6%), the higher level of recognition of the DDA suggests that if resource constraints for outreach and travel were addressed, there is potential to build this relationship even more in a beneficial way for farmers and thereby enhance accountability.

7.2 Preference matching

As noted earlier, one of the central aims of decentralization is to improve the correspondence between citizen priorities and service delivery, thereby allowing for preference matching (Oates 1972). Households were asked what area of investment they would prioritize in their district under two different scenarios: 1) the MMDA received an additional 2 million GHS from international donors and 2) the MMA raised an additional 2 million GHS from district residents' tax revenue. The difference in the prioritization between the two scenarios was negligible. However, given that preference matching assumes a fiscal contract between citizens and the local government, Table 7.4 shows the ranking of the priorities under the tax revenue scenario. Agricultural goods and services, particularly input subsidies, are given higher priority among farmers than non-farmers. Yet, among both groups, healthcare and public works receive the most support for investment of tax money.

Table Error! No text of specified style in document..14 Most preferred option for investment of an additional 2 million GHS in MMDA

Preferences	Full sample	Non- farmers	Farmers	Responsible MMDA Department
Improve healthcare	22.3	28.5	19.9	Health
Building and maintaining roads/bridges/dams	16.2	14.8	16.7	Works
Expanding access to clean drinking water	15.4	12.2	16.7	Works
Improve schooling	13.5	17	12.2	Education
Improving electricity infrastructure	8.0	5.9	8.8	Central administration
Provide seed/fertilizer subsidies	7.6	1.9	9.9	Agriculture
Sanitation (toilets, drainage, garbage collection)	4.4	4.4	4.4	Works

Table 7.4 Continued

Preferences	Full sample	Non- farmers	Farmers	Responsible MMDA Department
Expand agricultural extension services	4.1	2.2	4.8	Agriculture
Other	2.6	5.9	1.3	
Establish or improve marketplaces	2.1	1.9	2.2	Central administration
Loans and grants	2.0	3.3	1.5	Social Welfare
Job creation	1.3	1.1	1.3	
Factories	0.5	0.7	0.4	
Provide agricultural equipment (sprayers, tractors)	0.1	0.1	0.1	Agriculture
Total	100	100	100	
N	960	270	690	

Notes: "Other" typically refers to building sports stadiums, police stations, banks, sea defenses, or community centers.

When considered in tandem with the budgeted expenditures by sector presented in Table 7.5, there is some congruence between citizens' ranking of priorities and sectoral allocations within the 48 districts targeted in the household survey. Budgeted expenditures are used here since they reflect intention and are more directly influenced by negotiations during the composite budget process between the elected and bureaucratic branches that run the MMDAs.

Table Error! No text of specified style in document..15 Average Sectoral Budget Shares among Sub-Sample of 48 Districts

Sector	2012	2013	2014	2015	2016	Average
Agriculture*	9.1	10.8	10	6.6	8.7	9.0
Central administration	52	46.5	43.9	39.7	39.8	44.4
Disaster prevention	0.7	0.6	0.7	1.3	0.5	0.8
Education	17.5	18.2	17.5	20.5	17.7	18.3
Health	9.5	10.2	10.5	12.4	15.4	11.6
Physical planning	1	0.9	1.1	1.2	1.4	1.1
Social welfare*	0.9	2.1	2.5	2.9	3.2	2.3
Works*	9.3	13	15.6	13.7	13.3	13.0

Source: Calculated from composite budgets.

Notes: * Symbolizes devolved rather than deconcentrated sector.

Agriculture ranks just above social welfare, physical planning, and disaster management. This is largely reflective of where it ranks in citizen priorities within the full sample. Supporting the views of

the DDAs, a plurality of respondents prioritizes physical, visible investments, with more than 36 percent of the full sample preferring an investment that falls under the mandate of the Works department. Therefore, in the sectors that have been devolved, budgeting in this sub-sample does appear to follow citizen preferences.

7.3 Citizen perceptions of devolution

To gain a subjective understanding of how respondents assess the devolution of agricultural services, those who classified themselves as farmers for either their primary or secondary occupation were asked the following: "In 2012, some sectors were legally given more independence to deliver services at the MMDA level, including agriculture. In the last few years, have you observed any change in the provision of agricultural goods and services?" More than 68 percent of that sub-sample claimed that they did not notice any difference. While 11 percent claimed services had worsened, 20 percent claimed that they improved.

In order to examine why some farmers have a more positive assessment of devolution's impact on agricultural services, a logit analysis was conducted, with findings presented in Table 7.6 below. Two key relationships emerge. First, those who claimed in the survey that they know with certainty that an agricultural extension agent serves their area were significantly more likely to believe devolution had improved agricultural services. When the coefficient is converted to an odds ratio, the substantive impact is sizeable: those who have an extension agent serving their area are four times as likely to believe service delivery has improved than those who do not. Similarly, those who claimed to have received subsidized agricultural inputs, whether seeds, fertilizer, or pesticides/insecticides, over the previous agricultural season (see Appendix) expressed a positive view on devolution. This is not particularly surprising since citizens' main judgement of whether devolution is working depends on their experience with service delivery. Secondly, those who expressed general satisfaction with the performance in local government across the board had a more favorable impression of the impact on agricultural goods and services. This suggests that there are important externalities between the performance of the local government overall and the delivery of sectoral-specific services. Indeed, even the most dedicated DDAs may fail to have an impression on citizens if the broader institutional context in which they are operating is not sufficiently strong at communicating with households or delivering services in other sectors.

Table Error! No text of specified style in document..16 Satisfaction with Agricultural Services in Wake of Devolution

Variable	Coef.	Std. Err.	Odds
			ratio
Female	-0.205	0.231	0.815
Age	-0.005	0.007	0.995
Education level	0.004	0.052	1.005
Satisfied with performance of local government	0.393*	0.229	1.482
Extension worker present in community	1.447***	0.225	4.251
Received subsidized inputs	0.548**	0.229	1.730
Constant	-2.182	0.412	0.113

Notes: N=690 farmers in the sample. ***p<0.00, **p<0.05, *p<0.10

Collectively, the household survey suggests that while rural citizens may not fully understand the concept of decentralization, they have a strong intuitive perception of its intention. There is a bias towards elected leaders who are believed to offer greater accountability for their actions. Elected Assembly members are the main form of contact that most citizens have with their MMDAs. Some mechanisms of information sharing do need to be reinforced so that citizens better understand at other local government officials can be approached when service delivery challenges arise. Many are unaware of the major opportunities for citizen engagement at the local level, including the district development plans and budget hearings. The role and presence of DDAs is better recognized than those of directors of other devolved departments, such as Public Works. Expenditures for devolved sectors do tend to correspond to the rank that they are given in terms of citizen priorities in the sampled districts, with those from deconcentrated sectors corresponding less well. Finally, an appreciation of devolution's impact by citizens will most likely be assessed by the evidence of service delivery, such as the availability of extension workers, rather than by legislative and personnel transitions that are not well understood by most households. By implication, this suggests that if agricultural services do not improve, then citizens may become skeptical of the value of the entire process.

8. CONCLUSIONS

The ultimate challenge for the devolution of agriculture in Ghana and elsewhere is how to respect local governance priorities without forfeiting national agricultural policy objectives. High-level regional commitments, such as the African Union's Comprehensive African Agriculture Development Program (CAADP), may stimulate national governments to make commitments to agriculture goals and spending that materialize into agricultural investment plans. However, decentralization initiatives may cause agriculture to become sidelined if local politicians perceive that allocating too much money to agriculture may not be as electorally rewarding than if it is distributed to health, public works, or education. The budgeted expenditures for Ghana show that agriculture typically receives fewer resources as a share of the total budget than the other sectors and while other devolved sectors, such as public works, have seen their share increase since 2012, agriculture has plateaued. Actual agricultural expenditures have on average declined, even as other sectors have either stayed constant or increased over time. A broader vision of agricultural transformation does require investments in complementary sectors, including public works that improve feeder roads and boreholes.¹⁹ Nonetheless, as the DDAs convey, agricultural spending plays a critical role in delivering extension services, supporting visits to farmers, providing a fully staffed and qualified office, and pursuing a proactive agenda to improve the lives of farmers.

At the root of these trends are two related problems: scarce resources force Assembly members to prioritize across sectors during the composite budget process, and the lack of timely disbursements ultimately jeopardizes project implementation. In turn, this reveals that devolution remains an incomplete process in Ghana and the absence particularly of fiscal decentralization is the main hindrance to project implementation and service delivery. Due to insufficient internally generated revenue and therefore high levels of dependence on the central government for funding, there is a long time-lag before resources are disbursed to the MMDAs and DDAs from MoFEP to implement their budgets. Moreover, if the DACF was released on time each quarter and operated as an unconditional transfer, then one major funding constraint would be relieved, and the MMDAs would have the opportunity to consider whether agriculture should benefit more from DACF funding.

The lack of genuine fiscal decentralization is supported by the fact that the MMDAs collectively account for only 3.7 percent of the expenditures made within the agricultural sector (MoFEP 2017). Insufficient fiscal decentralization is not particular to agriculture and has also been observed for other devolved sectors, such as for social welfare and community development (World Bank 2016). It has though been exacerbated by other activities pursued by the national government in the past. For example, the practice of splitting districts under successive governments, which increased from 170 to 216 between 2000 and 2012, has been especially concentrated in rural areas where low IGF tends to be most problematic (Resnick 2017). There are fewer sources of taxation and fee levies for MMDAs as they become smaller. For example, Akuapim South became a new district in 2012 after splitting off from its parent district of Nsawam Adoagyiri. The DCD complains that they now have even fewer sources of IGF due to the lack of lorry parks or marketplaces in the smaller district where fees can be levied.²⁰

¹⁹ The debate over what to include in public agricultural expenditures is longstanding and has affected comparative assessments of countries' progress in meeting CAADP's Malabo goals. See AUC (2008).

²⁰ Interview with DCD in Akuapim South, Eastern Region, May 2017.

The government's new agriculture initiative, Planting for Food and Jobs (PFJ), seems likely to further undermine fiscal decentralization. As noted earlier, national programs for agriculture continue to be funded by MoFA, with resources transferred for implementation to the MMDAs. PFJ is estimated to cost approximately GHS 825 million per year on average. By way of comparison, the current national agricultural budget for MoFA is about GHC 450 million per year. PFJ intends to bolster agricultural growth through a focus on five pillars: subsidized improved seed, provision of subsidized fertilizer, free extension services, marketing, and e-agriculture platforms. Though starting with 200,000 beneficiaries in 2017, it aims to expand to 1.6 million beneficiaries by 2020 (MoFA 2017). However, such a massive national agricultural program is, in effect, a form of recentralization. While PFJ will provide DDAs with some guaranteed money for agriculture services, the use of earmarked funding for the sector stymies local government discretion and autonomy over expenditure priorities that devolution is ultimately intended to achieve.

At a broader level, Ghana's overall commitment to decentralization has been impressive and the country is considered one of the most decentralized in the African region (Riedl and Dickovick 2014). Political decentralization has been bolstered by regular subnational elections and, as shown, citizens view their elected Assembly member as their prime form of contact with their MMDAs. Administrative decentralization of functions commenced with L.I. 1961 and the designation of 25 functions to the agricultural departments within the MMDAs. A subnational civil service exists, and the 2016 Local Government Bill envisions that MMDAs ultimately will be able to hire and fire employees rather than rely on the LGS. If fiscal decentralization can be deepened and disbursement time-lags be addressed, then the goal of both attaining genuine devolution and achieving sectoral development goals would be more easily reconcilable.

-

²¹ Similar dynamics have been observed elsewhere. For instance, the creation of national conditional cash transfer programs in Latin America effectively undermined subnational governments' legislative mandate over social policy (Dickovick and Eaton 2013).

APPENDIX

Table A.1 Selected Districts for DDA Survey

Number	Region	District	Population (Source: District Censuses)	District League Score (Source: UNICEF & CDD)	Poverty rate (GSS Poverty Mapping)	Share of employment in agriculture (Source: District Censuses)	District is majority (>60%) rural, (1=yes, 2=no)
1	ASHANTI	Ahafo Ano North	94285	57.5	46.4	69.9	1
2	ASHANTI	Ahafo Ano South	121659	54.4	14.1	76.4	1
3	ASHANTI	Asante Akim North	69186	67.9	26.3	60.7	2
4	ASHANTI	Atwima Kwanwoma	90634	69.5	4.9	28.5	1
5	ASHANTI	Ejura Sekyeredumase Municipal	85446	69.3	47	60.8	2
6	ASHANTI	Kwabre East	115556	66.7	6.2	9.1	2
7	ASHANTI	Mampong Municipal	88051	62.2	29.5	56.4	2
8	ASHANTI	Sekyere South	94009	65.2	25.2	44.5	2
9	BRONG AHAFO	Asunafo North Municipal	124685	63.8	12	63.7	1
10	BRONG AHAFO	Asutifi South	52844	65.7	21.3	55.9	1
11	BRONG AHAFO	Banda	20282	51.6	78	70.4	1
12	BRONG AHAFO	Berekum Municipal	129628	69.3	28	44.4	2
13	BRONG AHAFO	Jaman North	83059	56.9	18.8	72.6	2
14	BRONG AHAFO	Pru	129248	57.4	43.1	67.2	1
15	BRONG AHAFO	Sunyani West	85272	56.4	29.5	48.8	2
16	BRONG AHAFO	Techiman Municipal	147788	65.2	14.2	37.3	2
17	CENTRAL	Abura Asebu Kwamankesse	117185	48.0	27.2	51.8	1
18	CENTRAL	Agona West Municipal	115358	38.6	4.4	34.9	2
19	CENTRAL	Asikuma Odoben Brakwa	112706	57.7	24	67.8	2
20	CENTRAL	Gomoa West	135189	36.8	22.6	45.1	2
21	CENTRAL	Komenda Edina Eguafo Abirem Municipal	144705	58.0	18.6	42.1	1
22	CENTRAL	Mfantseman Municipal	144332	55.8	29.8	27.0	2
23	CENTRAL	Twifo Hemang Lower Denkyira	55131	41.5	18.7	65.8	1
24	CENTRAL	Upper Denkyira West	60054	60.5	3.3	72.6	1
25	EASTERN	Akwapim South	37501	58.5	16.5	35.5	1
26	EASTERN	Asuogyaman	98046	59.8	19.9	35.9	1
27	EASTERN	Birim South	119767	51.1	27.6	60.2	2
28	EASTERN	Denkyembour	78487	69.2	4.6	33.4	2

Table A.1 Continued

Number	Region	District	Population (Source: District Censuses)	District League Score (Source: UNICEF & CDD)	Poverty rate (GSS Poverty Mapping)	Share of employment in agriculture (Source: District Censuses)	District is majority (>60%) rural, (1=yes, 2=no)
29	EASTERN	Fanteakwa	108614	51.0	18.1	62.5	1
30	EASTERN	Kwahu East	77125	48.4	36.6	54.0	1
31	EASTERN	Kwahu South	69757	58.9	48	47.0	1
32	EASTERN	Lower Manya Krobo Municipal	89246	55.6	14.8	20.5	2
33	GREATER ACCRA	Ga West	219,788	61.3	8.9	3.0	2
34	GREATER ACCRA	Ada West	59124	52.7	11.1	42.5	1
35	GREATER ACCRA	Ashaiman Municipal	190972	66.7	4.4	2.4	2
36	GREATER ACCRA	Ga Central Municipal	117220	59.0	10.1	2.3	2
37	GREATER ACCRA	Ga East Municipal	147742	56.8	4.8	2.7	2
38	GREATER ACCRA	Kpone Katamanso	109864	59.8	3.5	5.2	2
39	GREATER ACCRA	Ningo-Prampram	70719	59.5	31.2	29.0	2
40	GREATER ACCRA	Tema Metropolitan	292773	76.6	8.7	5.4	2
41	NORTHERN	Chereponi	53394	44.9	34.7	88.6	1
42	NORTHERN	East Mamprusi	121009	61.0	44.5	86.1	1
43	NORTHERN	Gushiegu	111259	38.7	35.7	90.9	1
44	NORTHERN	North Gonja	43547	49.7	53.8	82.6	1
45	NORTHERN	Sawla-Tuna-Kalba	99863	51.1	62.5	85.2	1
46	NORTHERN	Tamale Metropolitan	223252	61.2	24.6	18.2	2
47	NORTHERN	Tolon	73438	46.5	42.7	87.4	1
48	NORTHERN	West Gonja	41180	58.2	52.7	60.5	2
49	UPPER EAST	Bawku Municipal	98538	65.3	42	46.5	2
50	UPPER EAST	Binduri	61576	47.5	43.3	83.9	1
51	UPPER EAST	Bolgatanga Municipal	131550	67.1	27.9	40.3	2
52	UPPER EAST	Bongo	84545	61.4	67.4	73.2	1
53	UPPER EAST	Builsa South	36514	48.8	84.4	73.7	1
54	UPPER EAST	Garu-Tempane	130003	55.7	54.5	86.2	1
55	UPPER EAST	Kassena Nankana West	70667	60.6	13.1	80.7	1
56	UPPER EAST	Pusiga	57677	58.9	43.3	76.8	1
57	UPPER WEST	Daffiama-Bissie-Issa	32584	44.0	73.6	77.7	1
58	UPPER WEST	Lambussie Karni	51654	46.9	72.6	76.8	1
59	UPPER WEST	Jirapa	88402	53.6	71.4	70.0	1
60	UPPER WEST	Nandom	45296	58.1	73.7	78.2	1
61	UPPER WEST	Sissala West	49573	54.2	81.2	84.3	1

Table A.1 Continued

Number	Region	District	Population (Source: District Censuses)	District League Score (Source: UNICEF & CDD)	Poverty rate (GSS Poverty Mapping)	Share of employment in agriculture (Source: District Censuses)	District is majority (>60%) rural, (1=yes, 2=no)
62	UPPER WEST	Wa East	72074	37.6	83.8	87.5	1
63	UPPER WEST	Wa Municipal	107214	63.4	35.5	32.8	2
64	UPPER WEST	Wa West	81348	55.0	92.4	85.0	1
65	VOLTA	Ho West	94600	49.6	39.6	58.4	1
66	VOLTA	Hohoe Municipal	167016	53.7	31.6	39.2	2
67	VOLTA	Ketu South	160756	54.7	15.3	18.6	2
68	VOLTA	Kpando	53736	65.6	32.4	32.3	2
69	VOLTA	Krachi East	116804	44.0	50.6	73.2	1
70	VOLTA	Krachi West	49417	58.0	41.1	69.1	1
71	VOLTA	Nkwanta South	117878	48.2	31.7	71.4	1
72	VOLTA	North Dayi	39913	50.3	40.6	46.8	1
73	WESTERN	Bia East	26373	54.1	24.7	78.7	1
74	WESTERN	Ellembele	87501	68.5	19.9	35.8	1
75	WESTERN	Jomoro	150107	54.6	30.7	40.5	1
76	WESTERN	Prestea-Huni Valley	159304	51.2	17.4	45.5	1
77	WESTERN	Sekondi-Takoradi Metropolitan	559548	55.3	12.9	5.9	2
78	WESTERN	Shama	81966	59.5	21.7	32.1	2
79	WESTERN	Tarkwa- Nsuaem Municipal	90477	64.7	14.5	32.5	1
80	WESTERN	Wassa Amenfi West	92622	65.1	6.9	62.7	2

Table A.2 Affiliations of Interviewed Government Stakeholders

Institution	Department/Position	Number of Interviewees
Ministry of Food and Agriculture	Policy Planning and Budget	2
Local Government Services Secretariat	Policy Planning, Monitoring, and Evaluation Unit	4
Ministry of Finance and Economic Planning	Fiscal Decentralization Unit	2
MMDA for Accra Metro, Greater Accra Region	Department of Agriculture	1
MMDA for Akwuapim South, Eastern Region	District Coordinating Director, Budget Officer	2
MMDA for Gomoa West, Central Region	District Coordinating Director, Planning Officer, Department of Agriculture	3

Table A.3 Qualitative Responses of DDAs - "Please tell us what you see as one of the main opportunities that has resulted from devolving agriculture to the MMDA level" (Verbatim responses)

Responses

There are no opportunities

Now the agriculture in the district is basically owned by the district who report straight to Accra. Now the assembly has a say in what goes on in the agriculture in the district

It has now enabled us to speak freely and openly

The system of composite budgeting at the district level has strengthen the relationship between various departments. It has also enhanced joint monitoring of projects in the district

There are no opportunities

Linking up with other development partners is now easy. Plans are taken at the district level by the farmers in collaboration with the staff of agriculture

Has not seen any opportunity because working conditions are deteriorating all the time

I see that promotions and more job opportunities are greater in the district and you can now say your views

One thing that has improved is the promotion of staff. Unlike previously, where you will mark time at one position before you are promoted

Technical staff can enjoy annual leave and promotions, both by grade and by position. Now everyone can apply for the district coordinating director position

There are no opportunities

There is an opportunity to rise to the position of a district coordinating director

It has helped to plan well for the municipality specifically

There is flow of information

It has given the department opportunities to plan and budget activities in the district

There are no opportunities

Clear lines for staff promotions

I don't see anything since the resources are being controlled by someone

The main opportunity has been the interactive nature of all department

Now you can lobby for funds from the metropolitan, municipal and district assemblies (mmda)

It has given us the opportunity to be more locally focused.

Involvement of the grassroot people in decision making but when it comes to the implementation it becomes difficult to implement.

The opportunity is that the district director of agriculture is given the chance to advice the whole district

It has helped to plan and plan well for the district since we are with them and see what goes on grounds

Increased greater interaction between agricultural stakeholders

I don't see any opportunity because there are no funds to work with

At the assembly level, it has given room for all the departments to plan for the development of perculiar problem in the district

Letting metropolitan, municipal and district assemblies (mmda) know what agriculture does and the help agriculture needs from them

It makes decision making easier at the departmental level.

It also give the grassroot people the opportunity to participate in decision making process

Increased interaction between other departments and sharing of ideas

More income are derived from agriculture

Table A.3 Continued

Responses

There are no opportunities

We have been able to coordinate well with other decentralized departments. It has been cordial

There is little opportunity to the fact that various departmental heads get to know other departments agenda. Thus fostering collaboration

There is some level of freedom to have more planning

I can't think of any opportunities since the devolution

I can rise to become the district coordinating director.

Promotions are regular when you are due and that is a motivation

Establishment of the agriculture subcommittee brings knowledge concerning agriculture to the assembly better than before

Opportunity to collaborate with other departments in the district

There are no opportunities

There is an opportunity to listen to people at the district level because it gives us a bigger platform which is called the district planning and coordinating unit (dpcu) for people interested in agriculture to make input into our work plans

The district director of agriculture can now be promoted to a district coordinating director

Ability of actors of agriculture taken their own decisions on their own needs

It makes you plan for the specific needs of the district

There are no opportunities

In the absence of release of funds from mofa, the assembly may assist

Created more awareness about the function of mofa to the public

Promoting is now effective.

We can be promoted to a higher level now as compared to when devolving agriculture was non-existence

It has brought us closer together towards the achievement of goals in the district

There are no opportunities

More independence

Freedom to involve stakeholders is an advantage

There is more stakeholder participation

More agriculture related projects are coming in the district

The authority to decide at the local level on what to do

It has improved reporting system, speeding up transactions and has reduced transportation costs

Togetherness and nearness to them. They have indeph knowledge of our problem

Farmers participation in decision making that affect their own livelihood

There has been a composite budgeting which helps all sectors to get funds

The district assembly can help with resources to improve agriculture

It has helped in monitoring developmental projects within the district

The devolution system has brought about an opportunity for agricultural directors to become a district coordinating directors. However, this was not possible during the pre-2012 era

Most programs are now locally evolved

The metropolitan, municipal and district assemblies (mmda) has taking over the farmers day celebration and we have been actively involved in the mmda affairs

Table A.3 Continued

Responses

I can apply for the position of the district coordinating director when I am due or qualified. I can also undertake training courses at the institute of local government.

There is now sanity in the promotion system, unlike at first you find someone who is your junior in another region being ahead of you in terms of rank

It has help us to be able to plan for the specific needs for the district

To pull money together in all the district so that any district can fall on this fund if they are in need.

It gives district director of agriculture the opportunity to implement government policy to be developed

Now, it looks as if agriculture issues are not their priority as compared to education. We now expect to be improved

There is an opportunity to showcase your expertise in the district in terms of the implementation of projects.

It does reduce your position level because maybe you have your highest education than the district coordinating director

It has brought about broader consultation between stakeholders

Now, we are in close contact with them. In order to resolve all agricultural challenges. Our problems can now pass through during their district general assembly meetings

We received training from the district assembly

To be able to plan a program suitable for the district

We are so much in touch with our farmers. Thus, we are closer to our farmers more than before because before then, we go there once in a while when we were at the national level. Now we get to know their problems early

Having the opportunity to plan activities in the district

We now plan what we want to do

Table A.4 Qualitative Responses of DDAs – "Please tell us what you see as one of the main challenges that has resulted from devolving agriculture to the MMDA level" (Verbatim responses)

Responses

The main challenge is finance

It is the late release of funds. Also, the line of command is also a problem because Accra (main office) was supporting more effectively. But now, the district decides to provide us logistics

There is a problem of released of funds and also refusing to see agriculture as a back-bone for our human development

The only challenge is the late and irregular disbursement of funds from ministry of finance and economic planning as compared to the pre - 2012 period where ministry of food and agriculture used to send funds directly

Untimely disbursement of funds. This disbursement is woefully inadequate

Inadequate resources, timeliness and availability

There is a challenge of lack of operative funds

There is difficulty in getting funds

No supply of logistics to the field extension officers since the devolution, no motorbikes, no working gear, no fuel for movement, etc. Has been provided

Lack of resources and logistics for the work

I don't know

There is a big challenge of releasing of funds and logistics needed for field trips

As a result of the devolution funds are not coming

Table A.4 Continued

Responses

Lack of funds

The main challenge that has resulted from this is the late release of funds and lack of support in the agricultural sector

Now no funding, so we are incapacitated

Non-availability of funds

The growth and finance is a problem and for that matter, it is affecting agriculture

Funding is a challenge

Long bureaucratic procedures and reduce financial resources

Support is less in terms of resources

Inadequate resources for the department due to the attitudinal behavior from the assembly people. We are seen as staff in the periphery and not core staff. When we go there for any support, they don't mind us

Funding has been reduced or cutdown

The ministry does not listen to our problems on time because we are at the district level

Challenge of negotiating for funds from the assembly is very difficult and depends mostly on common fund without percentage allocation

I believe that our leaders are not agricultural inclined so they don't see the visions that the farmers see

Funding is very limited

Funding is a challenge

Funds are not released to the department on time which retards our progress

Negotiating for funds for agricultural activities because metropolitan, municipal and district assemblies might have different priorities

Releasing funds is difficult

Nonpayment of transportation for agricultural activities, as well as inadequate and irregular funding

Honestly, at times we don't know where we belong. Here, we have not been fully embraced. Formally, if we have a problem, the regional office solves them for us immediately. But now at the district level, they don't help us much. For me, not much education has been given. Example, in the case of the promotions, they promote their staff at the district level, whilst we are left alone

There is great bureaucratic process involved in accessing budgetary allocations which variably has influence the rise of corruption

Inadequate financial and staff resources

Limited planning activities for agriculture and this has affected total agricultural output

Most of the assemblies treat us as orphans. They don't make development of agriculture as priority

Funds don't come directly to the department of agriculture. But it had to pass through the metropolitan, municipal and district assemblies for us to take and that is a process

Non-availability of funds for planned implementation

We were brought here for them to help us work. But the help is not coming, instead, we are being frustrated

There is difficulty in accessing releases in terms of working funds

The decision making process is slow because you must involve the metropolitan, municipal and district assemblies

Partial integration of the agricultural sector to the district assembly, that is, the assembly does not fully see the agricultural sector as part of them and for that matter, are limited in approach

Funds are not coming as a result of the devolution

Table A.4 Continued

Responses

Most of the time, the priority of the metropolitan, municipal and district assemblies are different from our priorities. There are some years the mmdas decides to spend on education or other activities other than agricultural activities and so getting funds for agriculture based activities becomes difficult

Competition for limited resources by all decentralized departments

Increased bureaucracy and delays in program implementation

Resources and staffing are inadequate

Lack of funds to implement agricultural activities

Lack of resources. Agriculture should be left alone and not be put under local government. It should be autonomous as a result of its sensitivity to the nation

Lack of funds to carry out planned activities in the district

Funds are inadequate for operations

Lack of funds even though reporting responsibility has increased

Lack of funds

Funds are not readily available to carry out good activities on agriculture in the district

Unavailability of resources

Late disbursement of funds to metropolitan, municipal and district assemblies level

The area of finance. Thus, getting the funds from the district assembly is difficult

Late release of funds by the ministry of finance and economic planning

There is difficulty in getting requested funds for operations at the assembly

Funds are disbursed to the district assembly without awareness and inadequate resources

We are supposed to be seen as part of the assembly but it is not seen as such

There is a challenge of the other departments seeing

the agricultural department in isolation and this perhaps stems from the fact that they lack proper understanding of the decentralization system

Non- availability of funds to carry out planned activities

The implementation of our programs

Funding. It delays and most of the time is inadequate. Farmer to extension officer ratio is low because an embargo has been laid on employment.

The district assembly has not embraced us fully. They see us as outsiders and intruders since we were not initially part of them

Every organization is fighting for resources to develop since the resources are not enough

Assessing logistics to carry out agricultural activities seems difficult sometimes, because there are a lot of channels to pass through before getting to the top

Lack of funds and lack of the understanding of the whole concept

The district is one of the agriculture prone areas in the country. So they think there is no need to always put their focus more on us

There are no resources. The regional director of agriculture receives his money from the ministry of food and agriculture so you cannot discuss anything about resources with him. I receive funds from the district assembly and this do not make me feel as part of the ministry of food and agriculture anymore

Lobbying does not help our work at all

It made the district agricultural department so much dependent on the metropolitan, municipal and district assemblies

Inadequate funds form the district assembly. Not enough funds to support agriculture

Table A.4 Continued

Responses We have a challenge with assessing funds from the district assembly The assembly sees agriculture as not part of their set up Is with funding. It is extremely difficult getting funds from them Assessing funds from the assembly is the main challenge Late release and inadequacy of funds

Table A.5 Farmers' access to inputs during last agricultural season (%)

Category	New Seeds	Fertilizers
Did you use any [] during the past agricultural season?		
Yes	47.8	54.3
N	646	646
What was the main reason that you did you not use [] during the past agricultural season?	
I didn't need it	100	37.6
It was too expensive	0	48.1
None available when I needed it	0	7.8
Other	0	2
N	337	295
What was the main source from which you received [.]?	
District agriculture extension agent	21.0	23.1
Private company / dealer	36.6	72.1
Other farmers	24.3	0.9
NGO	0.7	0.6
Cooperative / community	0.3	0.9
Own reserves	15.9	0.0
Other	0.3	0.6
Don't know	1.0	2.0
N	309	351
Did you receive any subsidized [] during the past agricu	ultural season?	
Yes	15.2	27.1
N	309	351
What was the main source from which you received the	subsidized []?	
District agriculture extension agent	87.2	66.3
Private company / dealer	2.1	26.3
Other farmers	4.3	0
NGO	2.1	1.1
Cooperative/community	2.1	3.2
Other	2.1	3.2
N	47	95

Source: IFPRI-CDD Ghana Decentralization and Agricultural Services Survey

Notes: The sample starts with 646 farmers and then becomes smaller depending on the answers to previous questions.

REFERENCES

- African Union Commission (AUC). 2008. National Compliance with 2003 African Union-Maputo Declaration to Allocate at Least 10% of National Budget to Agricultural Development. Addis Ababa, Ethiopia: Department of Rural Economy and Agriculture.
- Agyemang, Kwaku, Femi Nzegwu, Cecilia Addae, and Festus Agoabasa. 2014. Strengthening Ghana's Regional Agricultural Department in the Context of the Ongoing Decentralization Process: An Assessment of Past and Current Capabilities, Volumes 1 and 2. Accra, Ghana: USAID and AfricaLead.
- Ahmad, E. and G. Brosio. 2009. "What do we know? Evidence on decentralization and local service provision. In E. Ahmad & G. Brosio (Eds.), Does decentralization enhance service delivery and poverty reduction? Cheltenham, UK: Elgar.
- Ayee, Joseph and J. Tyler Dickovick. 2010. "Comparative Assessment of Decentralization in Africa: Ghana Desk Study," Washington, DC: USAID.
- Bardhan, Pranab. 2002. "Decentralization of governance and development". The Journal of Economic Perspectives, 16(4), 185-205.
- Braun, Dietmar. 2000. "The Territorial Division of Power in Comparative Public Policy Research: An Assessment." In Braun D. (ed.), Public Policy and Federalism. Aldershot: Ashgate, 27–56.
- Brierly, Sarah. 2017. "Unprincipled Principals: Co-opted Bureaucrats and Corruption in Local Governments in Ghana," Working Paper.
- Brinkerhoff, Derek and Omar Azfar. 2010. "Decentralization and community empowerment," in Ed Connerly, Kent Eaton, and Paul Smoke (eds). Making decentralization work: Democracy, Development, and Security. Boulder, CO: Lynne Rienner Publishers.
- Channa, Anila and Jean-Paul Faguet. 2016. "Decentralization of Health and Education in Developing Countries: A Quality-adjusted Review of the Empirical Literature," World Bank Research Observer. Vol.31(2): 199-241.
- Cheema, G.S. and D. Rondinelli. 2007. "From Government Decentralization to Decentralized Governance," in G.S. Cheema and D. Rondinelli (eds), Decentralizing Governance: Emerging Concepts and Practices. Cambridge, MA and Washington, D.C.: Harvard University and Brookings Institution Press.
- Dickovick, J. Tyler and Kent Eaton. 2013. "Latin America's Resurgent Centre: National Government Strategies after Decentralization," The Journal of Development Studies. Vol.49 (11): 1453-1466.
- Faguet, Jean-Paul. 2012. Decentralization and Popular Democracy: Governance from Below in Bolivia. Ann Arbor: University of Michigan Press.
- Faguet, Jean-Paul. 2008. "Decentralization's Effects on Public Investment: Evidence and Policy Lessons from Bolivia and Columbia," Journal of Development Studies. Vol.44: 1100-1121.
- Ghana Statistical Services (GSS). 2014. District Analytical Reports: 2010 Population and Housing Census. Accra, Ghana: GSS. Available at: http://www.statsghana.gov.gh/DistrictReport.html

- Gilbert, Guy, Réjane Hugounenq, and François Vaillancourt. "Local Public Finances in Ghana," Chapter 3 in Bernard Dafflon and Thierry Madiès (eds.), The Political Economy of Decentralization in Sub-Saharan Africa; A New Implementation Model in Burkina Faso, Ghana, Kenya, and Senegal. Washington, DC: The World Bank.
- Government of Ghana (GoG). 2016. Local Governance At, 2016, Act 936. Accra, Ghana: Government of Ghana.
- Government of Ghana (GoG). 2009. Local Government Instrument, 2009. L.I. 1961. Accra, Ghana: Government of Ghana.
- Government of Republic of Zambia (GRZ). 2014. Cabinet Office Circular Number 10 of 2014. Lusaka, Zambia: Office of the President.
- Hecock, R.D. 2006. "Electoral Competition, Globalization, and Subnational Education Spending in Mexico, 1999-2004," American Journal of Political Science 50(4): 950-961.
- Kanyinga, Karuti. 2016. "Devolution and the New Politics of Development in Kenya," African Studies Review. Vol.59(3): 155-167.
- Kathyola, Janet and Oluwatoyin Job. (eds.). 2011. Decentralisation in Commonwealth Africa: Experiences from Botswana, Cameroon, Ghana, Mozambique, and Tanzania. London, UK: Commonwealth Secretariat.
- Khaleghian, Peyvand. 2004. "Decentralization and Public Services: The Case of Immunization," Social Science and Medicine 59(1): 163-183.
- Kyle, Jordan and Danielle Resnick. "Nepal's 2072 Federal Constitution: Implications for the Governance of the Agricultural Sector," IFPRI Discussion Paper 1589. Washington, DC: IFPRI.
- Ministry of Finance and Economic Planning (MoFEP). 2017. Agriculture Public Sector Expenditure Review Lite Tool (AgPER Lite) Ghana, Draft Final Report. Accra, Ghana: MoFEP.
- Ministry of Food and Agriculture (MoFA). 2017. Planting for Food and Jobs: Strategic Plan for Implementation (2017-2020). Accra, Ghana: MoFA.
- Mogues, Tewodaj and Kwaku Omusu-Baah. 2014. "Decentralizing Agricultural Public Expenditures: Findings from a Scoping Study at the Onset of a New State in Ghana's Decentralization Reform." Working Paper No. 37. Washington, DC: Ghana Strategy Support Program of the International Food Policy Research Institute.
- Oates, William. 1985. "Searing for Leviathan: An Empirical Study," American Economic Review. Vol.75:748-757.
- Oates, William. 1972. Fiscal Federalism. New York: Harcourt Brace Jovanovich.
- Resnick, Danielle. 2017. "Democracy, Decentralization, and District Proliferation," Political Geography. Vol. 59: 47-60.
- Resnick, Danielle and Abdul Wajid Rana. 2016. "Devolution in Pakistan: Implications for Agriculture and Rural Development," Chapter 9 in David Spielman, Sohail Malik, Paul Dorosh, and Nuzhat Ahmad (eds.), Agriculture and the Rural Economy in Pakistan: Issues, Outlooks, and Policy Priorities. Philadelphia, PA: University of Pennsylvania Press.
- Timmons, Jeffrey. 2005. "The Fiscal Contract: States, Taxes, and Public Services," World Politics. Vol. 57: 530-567.

- Treisman, Daniel. 2007. The Architecture of Government: Rethinking Political Decentralization. New York: Cambridge University Press.
- World Bank. 2016. Ghana: Social Protection Assessment and Public Expenditure Review. Washington, DC: World Bank.
- World Bank. 2015. "Practical Approaches for County Governments to Facilitate Public Participation in the Planning and Budget Process," Kenya Devolution Working Paper 6. Nairobi, Kenya: World Bank.
- World Bank. 2014. The Evolution of Kenya's Devolution: What's Working Well, What Could Work Better. Information Note for World Bank Staff. Washington, DC: World Bank.
- World Bank 2009. Local Government Discretion and Accountability: Application of a Local Governance Framework. Washington, DC: World Bank.
- Younger, Stephen. 2016. "Ghana's Macroeconomic Crisis: Causes, Consequences, and Policy Responses," IFPRI Discussion Paper 01497. Washington, DC: International Food Policy Research Institute.

