

The Imperatives of Institutional Framework and Collaboration Mechanism in Agriculture Modernization-The Case of Abim District, Uganda

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농업현대화를 위한 제도적 공동협력 프레임워크구축에 대한 연구: 우간다 Abim지역의 사례를 중심으로

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Abstract : The paper shows that Uganda lacks an adequate institutional framework to achieve agriculture modernization. Based on constellation model, the paper proposes an effective way to promote agricultural development through policy and institutional partnerships at various levels of governance and action by various stakeholders in the sector. From this theoretical perspective, the paper raises salient research questions: Why is Abim District an important focus for Agricultural development? What is the effect of institutional arrangements and partnerships in agriculture development in Abim District? What forms of institutional partnerships and collaboration framework can effectively address the challenge in the District and Northern Uganda as a whole? These concerns are important obstacles to improved agricultural performance in Uganda as dysfunctional institutional arrangements and norms are major constraints to agricultural development. The findings demonstrate that institutional gaps, bureaucracy, institutional proliferation and overlapping roles have derailed agriculture modernization. Hence, the development strategy proposes creating and rejuvenating all essential players operating in the region, developing or deepening their inter-linkages through judicious and sustainable partnerships with all the principal players in Abim District.

Key Words : Constellation Model, Agricultural Development, Sustainable Partnership, Adim District, Uganda

요약 : 본 연구에서 우간다는 농업 현대화를 달성하기 위한 적절한 제도적 틀이 부족한 것을 알 수 있다. Constellation Model을 기반으로 본 논문에서는 다양한 이해 관계자에 의한 지배 구조와 행동의 다양한 수준에서 정책과 제도적 협력을 통해 농업 발전을 촉진하는 효과적인 방법을 제안한다. 먼저 이론적 관점에서 Abim 지역에서 농업발전이 가진 의미를 고찰하고, 이 지역 농업발전과 관련된 현행 제도적 장치와 협력 관계를 평가한 뒤, Abim 및 북부 우간다 지역의 농업 및 사회경제적 문제를 해결하기 위한 효과적인 제도적 협력 구조를 탐구한다. 본 논문에서의 중요한 결론은 제도적인 문제들이 우간다에 농업발전에서 중요한 역할을 하며 제도적 격차, 관료적 행태 등이 농업 현대화를 저해하는 요인이라는 것을 밝혀냈다. 따라서, Abim지역의 주요한 개발파트너들과 지속 가능한 협력을 통해 상호 연계를 강화할 것을 제안한다.

주요어 : 배치 모델, 농업 개발, 지속 가능한 파트너십, Adim 지역, 우간다

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1. Introduction

Many decades of study of underdevelopment have focused on the deficiency of factor endowments, such as lack of capital or foreign exchange, with little attention being paid to institutional arrangements and collaboration (Bardhan, 2001; Park and Kim, 2011). While the modernization of agriculture is a multi-dimensional task, institutional framework plays a pivotal role in agricultural development (Parsons, 1966; Kim, Chang and Lee, 2011). Institutions shape the incentive structure and affect decisions of key stakeholders in agriculture. Other factors such as infrastructure development and technological change are all affected by institutional arrangement in a given context (Kirsten *et al.*, 2009; Kim, Chang and Lee, 2011). In agrarian economies the definition of land rights affects agriculture and needs governmental mechanisms to supply and protect tenure. More importantly, they determine how factors of production are utilized and developed, and provide a viable vehicle by which to deliver resources for agriculture development. This also means, however, that institutional innovation must be in synchronizing with agricultural development.

In Uganda, agriculture is a key sector, as over 80 percent of the population lives in the rural areas (Uganda Bureau of Statistics, 2011), where agriculture is the main employer with 73 percent of the total employment. Of those employed in agriculture, 77 percent are women, while 63 percent are youth (ND-P II 2015/16-2019/20, 2015). Nevertheless, the sector has recorded dwindling performance for the last two decades. Consequently, the government has enacted numerous reforms in the agricultural sector. The culmination of the reforms is agriculture moderniza-

tion, which emphasizes the potential of agriculture in transforming Uganda from a peasant to a modern and prosperous country (MFPED, 2004).

Agriculture modernization itself consists of farmers adopting good agricultural practices, employing productivity enhancing farm inputs, making decisions about input use and choice of crops or livestock to maximize their profit and selling more of their output on the market (Tumusiime-Mutebile, 2013). Thus, Commercialization of agriculture requires concerted efforts of multiple stakeholders, with the active involvement of the state and heavy capital investment.

Despite the reforms, institutional challenges still persist in key areas that affect agriculture directly. One reason for the persistence of unproductive institution is because some people benefit from it (Bardhan, 2001). These concerns are crucial obstacles as dysfunctional institutional arrangements and norms are a major constraint to agricultural development. This paper attempts to address these challenges in answering the following salient questions: Why is Abim District an important focus Agricultural development and how can Institutional partnerships affect agriculture development and food security in the region? What is the effect of institutional arrangements in agriculture development in Northern Uganda? What forms of institutional partnerships and collaboration framework can effectively address the challenge in the District and Northern Uganda as a whole?

The objective is to elaborate that institutional failure is the bane of agricultural development and food insecurity in Northern Uganda. The paper views the institutional problems bedeviling Uganda's agriculture from two perspectives. One, there are still missing, but necessary institutional frameworks that present opportunities to be explored. Second, there is

a proliferation and overlapping of functions among various sectoral institutions and agencies working in the region to address food insecurity.

The paper examines the cases of institutional arrangements and partnerships—both as a set of rules and as Organizations with a role in developing the Agricultural sector. Based on a theoretical model, the paper proposes an effective way to promote agricultural production through policy and institutional partnerships at various levels of governance and action by various stakeholders, including the National government, local government, private corporate sector and civil society/ NGOs.

The rest of this paper is structured as follows; the second section points to the nature of food insecurity and agricultural underdevelopment in Northern Uganda, including Abim District. The third section demonstrates the effects of the current institutional arrangements in agriculture development in Northern Uganda. Principally, we show that significant institutional gaps are prevalent in the current arrangement. In the fourth section, we navigate institutional theme further to point out how it has led to protracted interventions due to poor institutional coordination mechanism. The fifth section theoretically recommends how to resolve the institutional coordination problem by the aid of constellation model of partnership and highlight how it impact agricultural development.

2. Why Agriculture Development is Necessary in Northern Uganda (NU)

Northern Uganda suffered many decades of conflicts that led to population displacement, Socio-

economic losses, breakdown of social infrastructure (PRDP, 2011). The Karamoja Integrated Disarmament and Development Program (KIDDP) is one result of efforts to address these issues. The aim is to promote Peace through development (OPM, KIDDP, 2007). But due to the remoteness of Karamoja region, low education attainment, and poor infrastructure development, there are very limited livelihood options. Thus, commercial agriculture is seen as a viable source of livelihood to the armed youths who are being reintegrated into a community whose economy was ravaged by decades of war.

Agriculture development is also vital to Karamoja region due chronic food insecurity. The region marked with cyclical droughts, and sporadic rainfall, which affects both crop and livestock production. Periods of extended dry spells exert a great deal of pressure on water availability in most parts of the region. There is also severe environmental degradation as the inhabitants seek alternative sources of livelihoods from environmental endowments, such as charcoal burning (UNDP, 2014). The level of disease outbreak in the region is unfathomable, with the prevalence of malaria, diarrhea and poor sanitation making child mortality rate astoundingly high. Accompanied with extreme poverty, this situation has deteriorated the residents' survival capacity, leaving them precariously vulnerable (OPM, 2009). This makes intervention in agriculture and other livelihood improvement measures a matter of urgency.

The level of suffering is devastating in Abim District; prior to 2013, over 5,000 households headed by women and Orphans and Vulnerable Children (OVC) in the District continued to rely on relief food and nutritional support, 300 other households were in dire need of farm inputs, while another 400 got economic strengthening support (Abim District

Table 1. An overview of the Situation: Comparing National Average and Karamoja (Northern Uganda).

Indicator	National Average	Karamoja
Population living below the poverty line(UNDP,2007)	31 %	82 %
Maternal maternity Rate (per 100, 000 live births) (UDHS, 2006)	435	750
Infant Mortality rate, (per 1000 live births) (UNICEF/WHO, 2008)	76	105
Global Acute Malnutrition(GAM) (UNICEF/WFP, 2008)	6 %	9.5%
Access to Sanitation facilities (UNICEF, 2008)	62 %	9 %
Access to safe water (UNICEF, 2008)	63%	30%
Literacy rate (UDHS, 2006)	67%	11%

Source: OCHA/UN(2009)

statistics, 2013). The District also has a high number of malaria related deaths at 81 percent. Moreover, the District is classified by UNDP as a high risk region, with drought, floods, crop and animal disease, and land conflicts ranked closely as the most dangerous and high-risk hazards (UNDP, 2014). In periods of acute food shortage, the cereal prices can rise by as much as 65 percent (Ellen, 2010).

However, the region has agricultural potential. Among the Districts in the Karamoja sub-region, Abim District has the highest amount of rainfall of up to 1350 mm per annum (Abim District statistics, 2013). There is also an abundance of other resources such as soils, forest, wild animals, wetlands, livestock, water, human Resources, minerals, sun and wind. Nevertheless, this bounty has not been adequately utilized because of poor functioning of institutions. The land tenure system is the vital source of the tragedy of commons the land is undergoing in the region (UNDP, 2014). The region is divided into two livelihood zones, the agro- pastoral zones and wet agricultural zones; with the latter having the most fertile soils that can support various crop activities. Out of the 233, 700 ha of agricultural land, only 3600 ha is currently being used productively. Furthermore, women in Abim District are key stake-

holders in agriculture, meaning that the underperformance of this sector impacts women and children most.

3. The Effects of current institutional arrangements on Agriculture Development in Uganda.

From 2010, the government reviewed many policies to enhance agriculture modernization. These include policies for the allocation and use of water resources, Investment planning and decision making, facilitation and regulation of commercial investments in agriculture and the provision of effective irrigation services (Avery, 2014). The latest National Agricultural Policy (NAP) was a great leap in the planned modernization. Its major thrust were plans to ensure food security, increase income for farming households, support demand-led profitable value chains, promote trade in agriculture at regional and international levels and finally of enhanced sustainable use of agricultural land (MAIIF, 2010). However, the reforms have been beset with institutional gaps at District or local government level, thereby

slowing down the planned modernization. In small producer dominated situations like Uganda's agriculture, the role of institutions become even more salient considering that structural and enterprise limitations inhibit performance of the sector, including high transaction cost, heavy investment involved, lack of market integration and interlocking of factor and output markets which only institutions can address effectively (Singh and Ahmedabad, 2012).

The institution of land management is very important in agricultural modernization. In Northern Uganda, the government faces serious hurdles in its efforts to efficient reallocation of land due to vested interests (Kobusingye, 2014). The lack of secure tenures results in conflicts, displacement and increased vulnerability of Communities (Baumgartner, 2014). These conflicts lower agricultural productivity by up to 17 percent (Mwesigye and Matsumoto, 2013). As a result of this ineffective land governance and overlapping land rights, peasant farmers continue to till the land they don't own, which is a disincentive to proper land management. The other problem is that even though customary land ownership is legal, the law failed to recognize customary land dispute resolution mechanisms, despite that it offers a speedy solution to land held under the customary system (Baumgartner, 2014). The institution of patriarchy also adversely affects land in the region. With regard to land, patriarchy means male domination in land ownership. This norm contravenes the realities of agriculture production in Northern Uganda and means a mismatch between land ownership and production. The implication of this stereotype is that women who are major stakeholders in Agriculture are not allowed to own land. The males who own land emphasize cash crop production, which means only limited land is available for food production.

This in turn results in lower food production and persistent food insecurity (Bategeka, Kiiza and Kasirye, 2013).

Similarly, access to extension services is vital to agriculture production. Nonetheless, adequate institutional measures to strengthen agricultural extension services have been lacking. In this regard public policy should promote an effective agricultural extension system which can reach smallholders in the countryside and with main objective to provide technical advice to farmers to promote the adoption of good agricultural practices and improved seed varieties (Tumusiime-Mutebile, 2013).

The agricultural extension services reforms that were spearheaded by National Agriculture Advisory Services (NAADS) were compromised by institutional rivalry, whereby a donor-led group advocated radical reforms and enhancing the role of the private actors in the provision of the services, while technical oriented group preferred the public sector to lead the provision of extension services. Consequently, the reforms that materialized allowing both the private and the public sector players to provide the extension services failed to meet the object of the reforms. The failure to reach a consensus between the stakeholders also led to lack of ownership and technical input in the design of the reforms (Rwamigisa, *et al.*, 2011).

Moreover, after the liberalization and decentralization, the government did not accompany reforms with feasible plans to increase its human resource capacity to reach rural areas. This resulted in shortages of qualified and experienced staff to deliver agricultural extension services and a lack of training opportunities to develop professional and technical expertise. Consequently, the poor smallholders who cannot pay private extension services cannot access the services. In addition, Abim District is a hardship

area and thus, most experts are reluctant to work in the region (OPM, 2009). Thus, the extension services are poor, delayed and inaccessible. Currently the majority of smallholders in Karamoja has not adopted the full suite of feasible good agricultural practices. Women who are the major players in agriculture have the lowest access to extension services (NDPII, 2015). The government must invest extensively in rural road networks, and increase capacity of agricultural training institutions to produce local experts and extension officers. There is also a need to provide better incentives to experts who accept to work in the region.

A related Institutional gap is prevalent in Research and Development (R&D). Despite being the focus on eradicating food insecurity in the entire Green belt region, Northern Uganda has only one underfunded Agricultural Research and Development Centre (OPM, 2009), while Abim District has none. Therefore, there is no bridge between research and the productive sector. It is not surprising, therefore, that even though integrated crop and livestock husbandry is being promoted in the region, no explicit studies has been conducted in that respect (Avery, 2014). But linking agriculture to institutions of research will be of foremost for Uganda before introducing new crops in its value chain. Currently, large scale land holders in Northern Uganda practice cash crop farming, while the government prefers food crop farming to tackle food insecurity. Adopting new crops requires researching on the new crop varieties, land quality and size and availability of the market for the surplus.

Furthermore, organic production identified as a core component of the PMA and a high value activity requires new processes, managing bio inputs and sometimes producing on farm. All this involves

new products and new processes, markets, new institutions, networks and new information (Sing and Ahmedabad, 2012). This means heavy investment in training for farmers and local officials, extension officers and agricultural cooperatives. Juma (2012) has solemnly recommended building training institutes close to demonstration farms and focusing on the entire value chain. In gender sensitive contexts like Uganda, it would be appropriate if the government trains and employ more female extension agents for effective coverage.

Due to the failure in R&D and extension services, farmers in Northern Uganda have demonstrated low participation in adopting new crops and technologies (OPM, 2009). They are only willing to adopt new innovations and raising their yields if they perceive them as more profitable (Tumusiime-Mutebile, 2013). But the 2008/09 Agricultural Census showed that only 40 percent of maize grown in Uganda is sold on the market, while millet and sorghum stood at 19 percent and 14 percent respectively (UBOS, 2012). Based on evidence from other contexts, the government may consider contract farming projects¹⁾ (Goldsmith, 1985). The system provides backward and forward market linkages and guarantees a profitable market for the output to smallholders. This assurance can create the incentive to participate in commercial agriculture. In a context dominated by smallholders who farm with rudimentary tools, this system can avail input and production services on credit, introduce new technology and aid the adoption and learning of the new skills (FAO, 2001). Another strategy recognizes the difficulty of adopting new technologies and institutional constraints in finance and marketing and recommends reorganizing agriculture development around low input crops such as cocoyam and potato (Mgbada,

2007).

The institutions of credit are the other vital players in agriculture development. Their role includes relaxing credit constraints among smallholders, thereby leading to higher input use, adoption of new technology and makes diversification possible (Iqbal, *et al.*, 2003). Evidence shows that where agriculture has expanded rapidly, it has been accompanied by the expansion of institutional credit (Mellor, 1995; Iqbal *et al.*, 2003). For example, new productivity-increasing technology requires capital availability, either as working capital for the purchase of fertilizer, or fixed capital for the use of high-tech farming techniques. Thus, external financing is needed for rapid adoption of new technologies (Desai, 1989). While both increasing rural financial services to farmers and agro-processing and marketing were pillars of the PMA, and MAAIF Development and Investment Strategy (DISP) little progress was made on their implementation (MAAIF, 2010).

Rural Financial Institutions (RFIs) can also play

this crucial role by providing both credit and deposit taking services (Mellor, 1995). But, in Uganda rural financing is very scarce and most farmers do not have information on how to access them (USAID, 2007). Furthermore, due to lack of secure land tenure, smallholder farmers do not have the collateral to access credit. Other challenges include weak institutional framework, policy inconsistencies on agricultural financing, high interest rates, and limited financial literacy (Munyambonera *et al.*, 2012). A household survey by AfDB revealed that women and less educated people are less likely to demand and apply for credit (AfDB, 2008). The magnitude of the problem is demonstrated by the fact that currently, the agricultural funding gets less than 10 percent of Uganda's national budget (Bategeka, Kiiza and Kasirye, 2013). This has created a funding vacuum, part of which is being filled by donors. But the challenge of giving donors such a huge leverage is that they may have more influence in the sector, while their priorities may not be aligned with that of the govern-

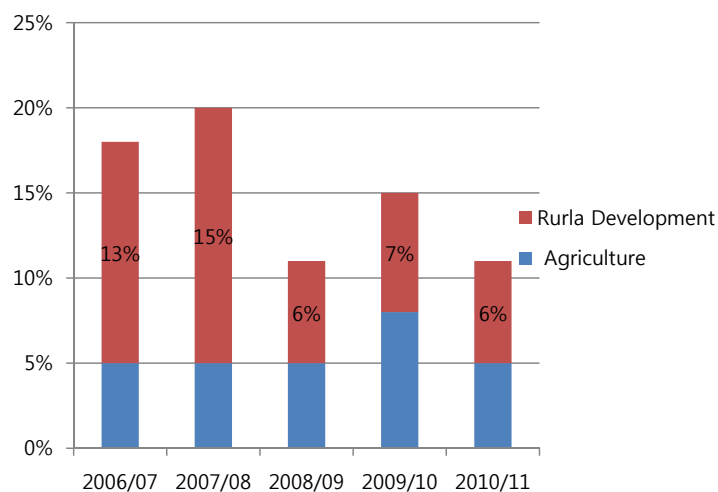


Figure 1. Public expenditure in Agriculture and Rural Development in Uganda.

Data source: MAFAP, 2013

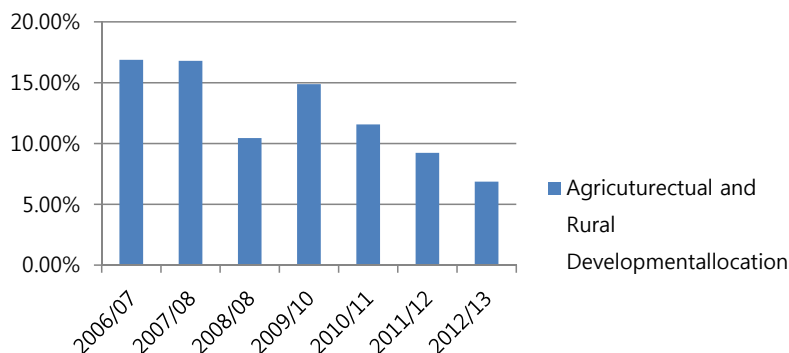


Figure 2. Actual Agriculture and Rural Development allocation as % of National Budget

Data source: MAFAP, 2014

ment. The state should thus play a catalytic role by pumping agricultural finance and underwriting risks (Bardhan, 2001). The government can also support the establishment of a rural Agricultural Development Bank to prioritize agricultural financing. Skills and vocational training policy should also be pursued along with the modernization of agriculture.

In light of producer cooperatives, the government facilitated the scaling up of the cooperative movements in tandem with agricultural modernization. It has also promoted the cooperatives in the privatization of agricultural services to provide extension services. However, institutional challenges exist that include financial and human resource limitations and weak linkage with the government (Nannyanjo, 2013). To compound this problem, Northern Uganda, which bears the brunt of poverty and inaccess to credit has the least number of cooperatives compared with the rest of the country at only 9 percent. Singh and Ahmedabad (2012) noted that the structure of traditional producer cooperatives organized makes them vulnerable to elite capture, which drives them to inefficiency and loss-making. This is mirrored in Northern Uganda, where the dysfunctional structures, including weak leadership, lack of internal

cohesion and inadequate technical support by the government has limited their functionality (Enzama, 2014).

A new approach would be to overhaul the structure of the old cooperatives to make them more oriented on market and resource mobilization. In the US and India, for example, the traditional producer cooperatives were transformed into New Generation Companies (NGCs), capable of using information efficiently throughout the vertical system. Unlike traditional cooperatives, NGCs have restricted membership, links product delivery rights to producer member equity, can raise capital by trading equity shares among members, distribute returns based on volume of business as well as venture in value addition and marketing (Nilsson, 1997). Furthermore, the tradability of delivery rights and individualized ownership means there is a consonance between business operations and ownership. In this way, NGCs can better serve commercial farming.

Finally, the institutions for Water resources management are the other vital players that underscore the success of modernizing agriculture. The region receives substantial downpour in the wet season, but due to inadequate harvesting, high evaporation,

unsuitable location for water sources accompanied by poor operation and lack of maintenance, surface water is scarce (IUCN, 2011). The limited and unreliable rainfall patterns that have been exacerbated by climate change, makes a lack of weather information a great impediment to agricultural production in Abim District (OPM, 2009). A joint stakeholder sector review agreed to prioritize Water Management Plan in water resources zones (Joint Sector Review, 2009). The MWE has developed guidelines for integrated water resources management. However, the development of Water resources in Abim or Karamoja region heavily depends on the availability of historical resource databases which are currently fragmented (Avery, 2014).

Furthermore, the region still lacks its own water resource management plan, which means that the current water resources intervention are not being done in conjunction with a well established framework whose sustainability is feasible (IUCN, 2011). It is also lamentable that climate data monitoring initiative has been lacking in the region for long (OPM, 2009). Similarly, while the government is promoting irrigation farming as the alternative to rain-fed agriculture, there is still no irrigation master plan for Abim District (Avery, 2014). These revelations be-

speaks profound institutional lag.

The government's policy also seems oblivious to the practicality of sustainable irrigation agriculture in the region. For example, even though it was estimated that the available water could support irrigation farming, new studies have shown that the irrigation need exceeds the available water resources (IUCN, 2011). The figure below shows water availability and demand in the region.

A further consequential setback on water and environmental management is the absence of wetland policy in the Karamoja region, especially at the District level (MWE sector report, 2013). The Wetland is a key livelihood area and a critical agricultural resource in Northern Uganda. It is the epicenter of crop production among the livelihood zones in the entire region. In Abim District alone, for example, the Wetland is the most fertile area ideal for production of crops such as sorghum, maize, millet, and wheat (Abim District statistics, 2013).

The existing National Wetland Management Policy, is however not in touch with the reality at the district level (Glass, 2007). The challenges of implementing the policy include shortage of funding, bureaucratic discord, politicization of the process and a lack of Wetlands knowledge. One objection to

Table 2. Water demand compared to water resources at Lokok sub- catchment (N.U)

Water Resources		Projected Water demand in the years 2007 and 2017		
Water sources	Availability water MCM /yr.	Type of Water Demand	2010 Demand MCM /yr.	2017 Demand MCM/yr.
Runoff water.	180	Domestic use	4.9	6.35
Ground water.	306	Livestock	8.12	9.99
-	-	Irrigation	506	665
-	-	Industrial use	0.0024	0.0048
TOTAL	486	Total	518	681

Source: IUCN, 2011

the policy is the lack of stakeholder input. It further failed to provide a feasible alternative to those whose livelihoods depend on Wetland resources, and who were directly affected by the policy. In this way, the policy failed to build the momentum to coherently mobilize action on agriculture development around the Wetlands. There is a need for a comprehensive policy and a legal and regulatory framework. More fundamentally, Institutions for wetlands management should be established at the District local government and primary stakeholder level. There is also need to establish collaboration among related sectors, build capacity of allied institutions and promote community participation (UN, World Water Report, 2006).

Besides being that the irrigation potential is higher than available water capacity as projected in the figure above, further studies show that irrigation development in the arid regions like Abim has many technical challenges that need to be addressed first (Avery, 2014). The government acknowledged that progress in irrigation agriculture is tethered with limited success due to the population's lack of experience in handling irrigation technologies and modern farming systems (OPM Assessment Report, 2013). In view of these assertions, livestock farming is seen as a better alternative because nomadic way of life is a source of resilience to drought and other calamities due to dynamic mobility in times of drought. Nomadism is also consistent with the availability of pastures within the semi arid lands in the region. It is also apparent that turning the dry land in the region to crop production will drastically interfere with the lifestyles and the resilience of the pastoralists, and require additional policy intervention. However, the government without any comprehensive study is stuck by exclusively promoting irrigated crop farm-

ing, in the misconception that cattle-keeping is unsustainable and that growing crops is the viable way to avert hunger and reduce poverty (IRIN News, 2014).

4. Institutional arrangements and impact on Collaboration in Agriculture development in Uganda

Due the multidimensional nature of poverty and food insecurity, there is a proliferation of NGOs and government institutions working in Northern Uganda. Especially after liberalization of agriculture and decentralization of core services, many autonomous agencies were set up to implement pro-market reforms. From the MAAIF evolved 12 departments under four directorates. In addition, the public agricultural system also has eight semi-autonomous sector agencies. This multiplicity of agencies has created a coordination problem as the parent ministry has no coordination mechanism. As a result, there are weak institutional linkages between the ministry and sector agencies on one hand, and amongst sector agencies on the other (Bategeka and Kisiry, 2013). This poses a challenge to the way of delivering key agricultural services to peasant farmers (Bategeka and Kisiry, 2013).

In response to the weak coordination mechanism by the MAAIF, donors created parallel institutions to deliver agricultural services. But this has only exacerbated the problem as the increased numbers of donors create stand alone projects. Additionally, departmentalization and short term projects to deliver public service have been the natural consequence of too many autonomous actors in the sector. This kind

of departmentalization and empire building indicates the absence of cross-functional teams within MAAIF and a lack of intra-agency, intradepartmental coordination framework.

The land management system in the region exhibits similar challenges resulting from legal pluralism in the land tenure, whereby citizens are governed by different sets of rights and obligations regarding access and use of land (Unruh, 2003). This is because state law and customary law were not merged and has given rise to conflicts stemming from administrative decisions, bureaucratic competition for responsibility and resources and a lack of clarity on which system governs the land rights (Carfield, 2011). The National Land Policy (NLP) attempted to integrate and harmonize the isolated pieces of legislation to resolve the overlapping and competing institutions operating in parallel (Ministry of Lands, Housing and Urban Development, 2013). Nonetheless, decentralization of land led to a proliferation of institutions and confusion over land conflict resolution (Kobusingye, 2014).

In the provision of extension services, the liberalization and decentralization of the agricultural extension system led to too many organizations, including public sector institutions, farmers' associations, private companies, NGOs, and CBOs providing the services. While private sector and NGOs' involvement in the agricultural extension system alongside the public sector could be beneficial to the people of Uganda, the management of the complex partnership created managerial confusion and inefficiencies that result from extension staff having two centers of power, one in the NGO and the other in local government.

The management of water and irrigation in the region has also experienced coordination failure and

overlapping of functions. For example, the Ministry of Karamoja Affairs, the MWE and the MAAIF are all responsible for promoting large water investment projects, but at different levels of intensity (Avery, 2014). Without a collaborative framework, these institutions cannot leverage their synergies.

The collaboration challenge is further exemplified in providing humanitarian assistance in Northern Uganda. For example, in the Peace Development Recovery Plan (PDRP), not all NGOs and INGOs were willing to submit information about their planned recovery activities to be integrated into District Development Plans by the district authorities (Ellen, 2010). This is a strong manifestation of self interest. Collaboration is further constrained by lack of proper procedures on how to manage and access resources. There are suspicions that resources channeled through the government hardly reach the beneficiaries (Devex, 2012; Basahaasha *et al.*, 2011). Similarly, local Organizations have demanded an enhanced role in agricultural development program. As a result, there is need to find a coordination framework where all actors are involved, maintain their autonomy and build mutual trust.

5. The Proposed Collaboration Framework

1) Overview of constellation Model

The need for networks and partnerships arises from the need to address complex issues that cannot be addressed by one partner, the need to improve efficiency and effectiveness of resources, and avoid duplication of effort (Anandajayaseke *et al.*, 2009). This

idea recognizes that when an organization environment becomes too complex for one organization to manage, an interorganizational approach can change the perspective from the single organizational level to a “domain” level (Trist, 1983). In Northern Uganda, a large web of actors is involved; MAAIF, MWE, Ministry of Local Government, Ministry of Gender, Labor and Social Development, Ministry of Tourism and Wildlife, UNDP, FAO, Uganda Red Cross Society (URCS), Ministry of Education and Sports, Adventist Relief Agency (ADRA), USAID / FEWSNET, Uganda Wildlife Authority, District Local Government (OPM, 2009). Hence, based on the discussion in section four, we propose a constellation model of partnership.

The most compelling aspects of the model are that it harmonizes multi sector agency collaboration, encompasses institutional perspective, strengthens

sharing of information and underscores the involvement of local stakeholders. More fundamentally, it helps partnering institutions to overcome power differences, to be pragmatic, and to quickly harness innovations. While successful interaction hinges on the careful management of differing organizational characteristics and philosophies during the interaction process (Reid, 2004), issues on how to maintain autonomy and preserve diversity, set collective goals or share responsibility can pose a challenge to collaboration (Surman and Surman, 2008). These challenges have been seen in Northern Uganda wherein NGOs/INGOs, and local organizations are reluctant to partner with the government for fear of domination by the government. On the other hand, the government agencies are keen to preserve their legitimacy and bureaucracies (Ellen, 2010; Kobusingye, 2014).

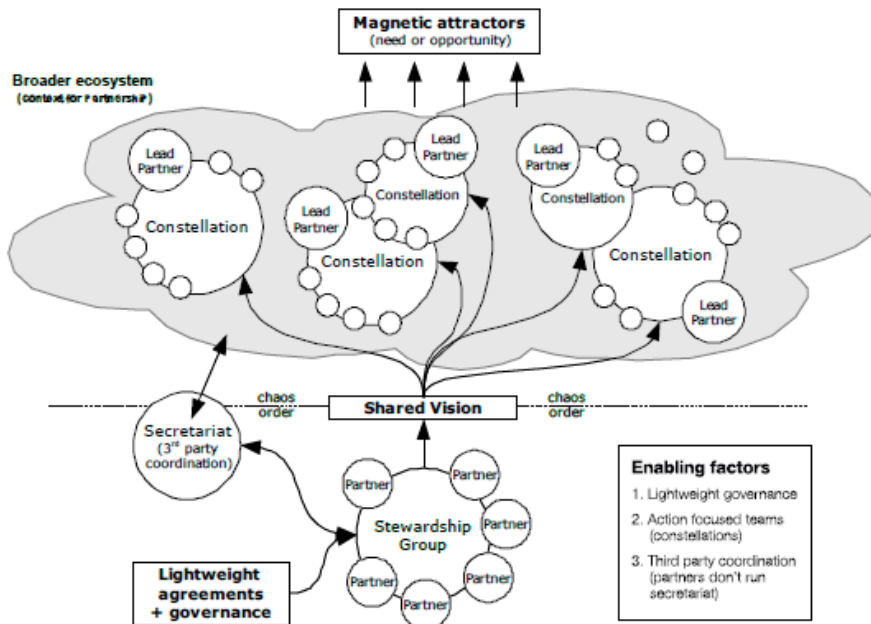


Figure 3. Constellation Model

Source: Surma 2006

By identifying institutional interdependence, such as common interests, shared resources and tasks and then developing common values and norms, the model can bridge inter-organizational relationships in Uganda. The diagram below depicts how action focused constellations form clusters.

2) Structural and institutional dimensions of the Model

The success of this collaboration strategy hinges on three elements which makes it suitable to Uganda's context:

(1) Light weight Governance

The constellation model works in an environment where there is an opportunity, called a magnetic attractor. This means that the model arises from the need to work collectively on a pressing development problem. In Northern Uganda, food insecurity is already a compelling magnetic attractor.

Upon converging around the magnetic attractor, the institutions need a stewardship group to drive the group's collective vision. The group ensures that the constellation and the partners coordinate their efforts, avoid duplication, and enhance work toward the greater goal (Surma, 2006). The stewardship or coordinating committee comprises representatives of the various actors converged around the magnetic attractor. This coordinating mechanism was successfully attempted in Northern Uganda in a cluster program in the post conflict period. The model was found to be an effective coordination platform for information-sharing, reducing duplication and filling gaps and a vehicle for strengthening accountability through the monitoring of funding flows (Ellen, 2010).

The stewardship group is also useful when there is a power imbalance between partners (Surma, 2006). For example, in Abim District, there are large international organizations, government agencies and CBOs, with the result that power is unevenly distributed. The committee can diffuse the power asymmetries. The main task of the steering committee would be to draw strategic plans which articulate the overarching goal of the constellation, such as enhancing sustainable food security and improved incomes, as well as supporting government sector policy initiatives that aim to improve smallholder agriculture. Actors easily dissolve once the problem is solved.

(2) Action focused work Teams

One of the core advantages of the constellation is its pragmatism. Participants in the alliance direct their actions around the domain that brought them together (Gray and Wood, 1991). Constellation usually takes the form of clusters in which the actors participate depending on their core competencies and self interest. These should be organizations working to address the same problem, hence projects or work groups. In Abim District, for example, all institutions dealing with issues of land resources management and disputes, including traditional and modern institutions can form one constellation. Similarly, all those dealing with water and sanitation, or education, humanitarian relief, or R&D and technology dissemination can each form different constellations. However, all these work teams must relate their work to the magnetic attractor, in this case, sustainable food security and improved farmer income.

The incentive for the model is that money flows through the agency that initiates the action and leadership is given to the constellation member that

steps up the initiative and moves it ahead. As a result the resources are spread around in a fairly even manner (Surma and Surma, 2008). This ultimately tackles the challenge managing the access and use of resources that is identified as a problem in Northern Uganda.

(3) Third Party Coordination

The secretariat is the other important element in the model. It acts like the collaborative convener that establishes, legitimizes and guides the collaborative alliance around the magnetic attractor (Wood & Gray, 1991). Even though this role can be assigned to one of the partners, traditional perspectives of interorganizational collaboration argue for a neutral mediator (Gray, 1989). This principle underlines organizational interdependence and the need for partners to exert mutual influence (Brown & Tandon, 1994, Surman, 2006). The secretariat is an organization or person with experience in the planning, facilitating meetings, supporting emerging work teams, fundraising for joint projects, handling conflict, disseminating information and capacity building for the entire group to work towards common outcome (Surma and Surma, 2008). One of its critical roles is the facilitation of information flow to all stakeholders. Besides enhancing transparency, it solves information asymmetry. Such a role cannot be overemphasized in a multi-stakeholder strategy like agriculture development.

Given its critical role, the secretariat works with the stewardship team to develop norms and rules and enforcement mechanisms for interaction among different sector institutions. These institutional norms reduce the complexity and confusion. Moreover, this mediated multi-sector collaboration nurtures social learning process with the potential to produce last-

ing institutional arrangements and promote future collaborations. Successful capacity building enables multiple organizations to understand and work together effectively in the future (Brown & Ashman, 1999). Having noted that Uganda's PMA is set back by lack of institutional norms of interaction among different institutions addressing food insecurity and poverty, this approach offers a new breath of life to the plan.

Currently, the department of disaster preparedness in the office of the Prime Minister plays a similar role (OPM, 2009). Even though the role of the government as a convener can be a vital source of legitimacy owing to the government's control of various resources (Wood and Gray, 1991), it has limitations. One bottleneck is that it alters the power dynamic in the collaboration, giving more power to government. This is a disincentive especially smaller partners. Furthermore, the convener need not have a formal authority like a government agency in order to oversee the problem domain (Gray, 1989). In the proposed arrangement, the function would be detached from the office of the Prime Minister. One of the central attributes of this type of convener is perceived fairness and trust. It is vital that stakeholders do not inhibit the fear that the convener's authority may be used arbitrarily. Enhancing participation of small actors in the collaboration can affect sustainable agriculture development in the region.

6. Implication and Conclusions

Institutional framework is should a major concern in agriculture development. Despite Uganda making significant reforms in agriculture, there are serious

institutional gaps that constrain goal of modernizing agriculture. The current arrangement does not offer adequate incentives for peasant farmers to adopt modern farming techniques or new crop varieties. Training and incentives for extension workers willing to work in NU is paramount for the program but has been lacking. This should include training of female extension officers owing to the gender sensitive context of Uganda. Further interventions are needed to strengthen land tenure rights for smallholders. Farmers will only have incentives to invest in land management and avoid rudimentary practices which damage the long term productivity of the soil when they have secure land tenure.

There also needs proper institutional arrangements in the provision of credit, including financial education, the government pumping more funds to the sector and creating awareness on how to access credit. In water resources and wetland management there is need to build a reliable database and improved technical skills in data management.

Further, institutional arrangements are a major constraint to collaboration. The issues of proliferation of institutions, the multiplicity of agencies with overlapping and uncoordinated functions creates confusion, competition for resources and preoccupation with preserving the institution's legitimacy that leads to poor service provision to smallholders. Agriculture modernization is a multifaceted task that takes a domain approach to institutional management. While the government's role is essential as a coordinator of the program, it is failing because other players perceive corruption, inefficiency and power imbalance. Hence the need for a third party coordination. By enabling multi-sector collaboration, the constellation model nurtures institutional social capital development. Since the approach emphasizes

the active involvement of local organizations it develops their own capacity through the learning process. In so doing, this model provides a road map for sustainable agriculture development and food security in the region, which are the thrust of PMA and the NDP.

Note

- 1) Contract farming is an agreement between farmers and processing or marketing firms for the production and supply of agricultural inputs. The system works well in small holder dominated situations, because access to agricultural services is limited to this category (FAO, 2001).

References

- 김재현·장주연·이효정, 2011, “농촌지역활성화를 위한 기업의 지역사회투자활동과 중간지원조직의 역할: 농촌사랑국민운동본부의 1사1촌 운동을 사례로”, 한국경제지리학회지 14(2), pp.211-224.
- 박창규·김혜영, 2011, “지역주민의 농촌마을종합개발 사업에 대한 인식이 농촌관광개발 인식과 태도에 미치는 영향”, 한국경제지리학회지 14(3), pp.419-436.
- Avery, S., 2014, *Water and Irrigation in Karamoja, Uganda. Review of Water Development and Irrigation, Uganda.*
- Abim District Local Government Statistical Abstract, 2012/2013
- Bardhan P., 2001, *Institutions, Reforms and Agriculture Performance.* FAO
- Bashasha, B., Mangheni, M. N. and Nkonya, E., 2011, *Decentralization and rural Service Delivery in Uganda.* International Food Policy Research Institute (IFPRI) Discussion Paper 01063. February 2011

- Bategeka, L., Kiiza, J. and Kasirye, I., 2013, *Institutional Constraints to Agricultural Development in Uganda*. EPRC Research series no.100.
- Baumgartner Lisa, 2014, *Uganda National Land Policy: What it means for Pastoral areas*.
- Brown, L.D. & Tandon, R., 1994, "Institutional development for strengthening civil society", *Institutional Development Research* 1(1), pp.1-36.
- Carfield, M., 2011, *Land Justice in Uganda: Preserving Peace, Promoting Integration*. International Development Law Organization (IDLO).
- Desai, B. M., 1989, *Objectives and the Role of Institutional Finance for Agricultural and Rural Development*.
- Eaton, C. and Shepherd A. W., 2001, *Contract Farming: Partnership for Growth*. A guide, FOA.
- Enzama, W., 2014, *Producer Cooperatives and Challenges of Vertical Coordination. Lessons from Angetta, Northern Uganda*.
- Glass, S., 2007, *Implementing Uganda's National Wetlands Policy: A case Study of Kabale District*.
- Goldsmith, A., 1985, "The Private Sector and Rural Development: Can agribusiness help the Small farmer?" *World Development* 13(10-11), pp.1125-1138.
- Gray, B., 1989, *Collaborating: Finding common ground for multiparty problems*, San Francisco: Jossey.
- Parsons, Kenneth H., 1966, "Institutional Aspects of Agricultural Development Policy", *Journal of Farm Economics* 48(5), Proceedings Number (Dec., 1966), pp.1185;
- IRIN News, Kapala, 2014, Alarm over Mandatory gardens in Karamoja. <http://www.irinnews.org/report/99523/alarm-over-mandatory-gardens-in-karamoja>
- International Union for Conservation of Nature, IUCN, 2011, *Water Availability, Demand, Quality, Data management in Lokok Sub-catchment, Karamoja*.
- Iqbal, M., Munir, A. and Abbas, K., 2003, *The Impact of Institutional Credit on Agricultural Production in Pakistan*. Pakistan Institute of Development Economics.
- Ivy Mungcal, 2012, Will the World Bank suspend Aid to Uganda? Devex Website. <https://www.devex.com/news/will-the-world-bank-suspend-aid-to-uganda-79747>.
- Juma, C., 2012, *Building New Agricultural Universities in Africa*. Faculty Research Working Paper Series. RWP 12.
- Manyambonera, E., Nampewo D., Adnong, A. and Muryanja, A., 2012, *Access and use of credit in Uganda. Unlocking Dilemma of financing smallholder farmers*. EPRC Policy brief.
- Mellor, J. W., Streeten, P. and Khan, M.H., 1995, "Some Issues in Institutional Finance for Agricultural Development: A Cross-National Review of Evidence", *The Pakistan Development Review* 34(4).
- Mgbada, J. U., 2007, "Socio-Cultural Factors Hindering Adoption of Technologies by Women- in-Agriculture Farmers in Enugu State, Nigeria", *International Journal of Agriculture and Rural Development* 9(1).
- Ministry of Lands, Housing and Urban Development-The National Land Policy, 2013.
- Ministry of Water and Environment, Water and Environment Sector Performance Report, 2013, October 2013.
- Ministry of Finance, Planning and Economic Development., 2004, *Plans for the Modernization of Agriculture; Eradicating Poverty in Uganda*.
- Ministry of Works, Housing and Communication., 2003, *National Information and Communication Technology policy*.
- Mpuga, M., 2008, *Constraints in Access to and Demand for Rural Credit: Evidence from Uganda*.
- Mwesigye, F. and Matsumoto, T., 2013, *Rural- Rural Migration and Land Conflicts: Implications on Agricultural Productivity in Uganda*.
- Nannyonjo, J., 2013, *Enabling Agriculture Cooperatives through Public Policy and State: The CASE of Uganda*, United Nations Research Institute for Social Development, UNRISD.
- National Water Development Report, Uganda, 2006, *Water, a shared Responsibility*, Prepared for the 2nd UN

- World Water Development Report.
- Nilsson, J., 1997, *Cooperative organizational Models as a Reflection of the Business Environment*.
- Rwamigisa, P. B., Mangheni M.N. and Bimer, R., 2011: *The challenge of Reforming National Agriculture Extension Systems in Africa: The Case of Uganda's Policy reform Process*, pp.1996- 2011.
- Second National Development Plan 2015/16-2019/20, 2015, Uganda Vision 2040 "A Transformed Ugandan Society from a Peasant to a Modern and Prosperous Country within 30 years"
- Surma, T., 2006, *Center for Social Innovation*.
- Surma, M. and Surma, T., 2008, *Listening to the Stars: The Constellation Model of Collaborative Social Change*.
- The Joint Sector Review, 2009, Water and Environment Sector, Agreed Minutes.
- Tumusiime-Mutebile, E., 2013, *The challenge of modernizing Smallholder Agriculture in East Africa*, The International Symposium on Agricultural Developments in the EAC Partner States, Kampala.
- Office of the Prime Minister (OPM), Uganda, 2007, *Karamoja Integrated Disarmament and Development Program (KIDDP)*, Creating Conditions for Promoting Human Security and Recovery in Karamoja, 2007/2008/2009/2010.
- Office of the Priminister, OPM, Uganda, 2009, *Karamoja Action Plan For Food Security*, 2009-2014 in Karamoja Agricultural Production Zones, Karamoja Region. Program Document.
- Office of the Prime Minister, OPM, Uganda, 2011, *Peace, Recovery and Development Plan for Northern Uganda*, Phase 2, July 2012-2015, Final.
- Office of the Prime Minister, 2013, *Assessment report on irrigation potential sites in Karamoja sub region, Uganda*.
- Uganda Bureau of Statistics, UBOS , 2011, *Statistical Abstract*.
- Uganda Bureau of Statistics, 2012, *Statistical Abstract*, pp.44.
- United Nations Development Program, 2014, *Karamoja Abim District Hazard, Risk and Vulnerability Profile, 2014*, UNDP.
- Unruh, J.D., 2004, "Post-Conflict Land Tenure and Legal Pluralism in Peace Process", *Peace and Change* 28(3), pp.352-377.
- USAID, Uganda, 2007, *Improving access to financial services in Rural Uganda*, Rurla SPEED Final Report.
- World Bank Indicators, 2014, *Uganda - Density & Urbanization*.
- Wood, D.J. & Gray, B., "1991, Toward a comprehensive theory of collaboration", *Journal of Applied Behavioral Science* 27 (2), pp.139-162.
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