# Implementing the Common Africa Agricultural Development Programme in Malawi: Conflicts and Communication among Stakeholders<sup>1</sup>

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#### Abstract

With the Common Africa Agricultural Development Programme (CAADP) the African Union responds to the growing awareness that the involvement of relevant stakeholders into the political communication process increases ownership and commitment to policy programmes. This big advantage of participatory processes is triggered by solving political conflicts of interests during the formulation process. Thus, we explore how far informal institutions, i.e. communication networks among actors engaged in the formulation of agricultural programmes in accordance with CAADP rules, are able to reduce political conflicts. Using data collected during a network study in Malawi in 2010, we compute an index of political conflicts for all stakeholders and apply a model of belief formation. Further, we analyze to what extend political conflict determines communication network structures. The analysis highlights that communication is able to reduce conflicts and that communication among actors is mainly determined by their reputation.

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## **1** Introduction

In the last few years, policy formulation in Africa has shifted from elite-dominated processes towards participatory policy making. Participatory policy processes seek to include non-state and state actors into the development of policy programmes that are of interest for them. Over time, the involvement of all stakeholders increases the probability of a successful implementation of policy programmes, because participation leads to a strong sense of ownership and commitment to the programme. Stakeholders preceive these programmes as more legitimate than top-down policy programmes. Moreover, political involvement of diverse groups of actors stimulates efficient policy learning. Information on how policy programmes turn into policy outcomes and on what problems specific sectors face become increasingly available through collaborative approaches.

But the advantage of broad based support and knowledge-based policy formulation is triggered by the possible disadvantage of increased costs for solving conflicts of interest during the bargaining process. Conflicts of interest might occur during participatory policy formulation because involved actors like legislators, NGOs or interest groups, respectively, disagree on the desired policy outcomes and true political technologies.

The conflicts of interest in policy formulation are determined by socio-economic and institutional structures that provoke divergent policy preferences and shape communication opportunities among actors. Especially the latter arises the opportunity to engender or to solve conflicts of interests among stakeholders, enables mutually acceptable policy outcomes and allows for policy learning.

While we observe advocating participatory policy approaches, we notice a knowledge gap regarding the evolution and resolution of conflicts of interest due to this new developments. The Comprehensive Africa Agricultural Development Programme (CAADP) of the African Union is good case in case point for the empirical analysis of the influence of participatory policy process on conflict evolution and resolution. Thus, this article explores how the communication among actors engaged in the formulation of agricultural programmes in accordance with CAADP rules has deepend or reduced conflicts of interest. We elaborate conflict lines among stakeholders and mediators of communication. Moreover we are interested how conflicts of interest about the state of the world relate to conflicts of interest about the true political technology. The state of the World relates to the fundamental values or policy outcomes pursued by actors with policy programmes. The true political technology describes the policy instruments in which actors believe to realize their desired state of the World.

To assess the relationship between communication and conflicts of interest, this paper proceeds in three sections. First, section 2 gives insights on the emergence of conflicts of interests within policy processes and on the relationship between communication and conflicts. Conflicts of interest are defined in that way that at least two parties (organized groups, donors, political actors) pursue incompatible policy goals or policy strategie, respectively, that require the same scare resource to be fulfilled (Axelrod, 1970; Dahrendorf.

1958; Mack and Snyder, 1957). Second, the empirical assessment of conflicts of interest is done in section 3. We calculate the index of conflict of interest as the difference in policy positions of actors weighted by their relative interest in this difference. Our work is based on empirical data from a network study held in Malawi in 2010 that has collected policy positions and communication networks among stakeholders and politicians concerning the "Agricultural Sector Wide Approach (ASWAp)". This sector investment programme in Malawi is built on the principles of CAADP. Further, we compute conflicts of interests based on the positions after actors have communicated with each other to assess the potential of communication to solve conflicts. We conclude with section 4.

## 2 Conflicts of interest while formulating policies

Conflicting interests are definded in that way that goals of two or more actors are incompatible, while the successful implementation of both goals depends on same scare resource (Axelrod, 1970; Dahrendorf, 1958). Conflicts of interests can trigger deadlocks of policies and engender costs of conflict resolution if two conditions are met. Actors engaged in the formulation are interdependent and in mixed motive (Quirk, 1989). Mixed motive is a situation in which actors have conflicting and complementary interests. For democracies these conditions hold and conflicts of interest are observable. The socio-economic framework determines societal conflicts that compete for the same scare resource budget. Legislators who represent the societal conflicts in parliament cannot act unilaterally but have to agree on mutually acceptable policies. Society is at least interested in continuation of the state. Thus the policy formulation responds to societal conflicts of interests and reaches mutually acceptable policy programmes . At the same time, autocracies show a different picture of conflicts of interest. Conflicts of interest producing resolution costs and deadlocks mainly arise within the elite while clashing interests between the unorganized poor and the elites with respect to the unilateral power of the latter largely remain costless and without impact on policies.

## 2.1 Conflict Evolution

Within the policy formulation process political actors play a bargaining game to reach a mutually acceptable agreement that is hampered by conflicting and common positions and interests of actors. In a democracy the conflicting positions and interest evolve from legislator's specific interactions with voters and interest groups. Interests groups emerge from the socio-economic framework conditions and support belief systems that benefit their members (Becker, 1983; Olson, 1965; Peltzman, 1976). Lobbying generates the opportunity to influence political actors if interest groups are able to overcome collective action problems (Olson, 1965). The electoral leverage also guarentees that societal conflicts are shifted to the policy arena. In contrast, the elites in autocratic regimes have predominantly access to the political circle and legislators are not held accountable to society by elections. In consequence political conditions do not confer societal conflicts upon

the policy arena in autocratic regimes. Within this paper we focus on the conflicts of interest in democratic societies.

Figure 1 describes the above outlined emergence and transmission of conflict of interests. First, the economic framework conditions influence preferences of actors. Here, actors often do not have perfect information on how policies translate into the state of the world about which they have confined preferences. Therefore, they form policy beliefs about how the political technology T(z) transform to policy outcome z. To understand the transmission of societal conflicts of interests within policy belief and state of the World systems we need to explain legislator's, voter's and interest group's preferences as relevant actors of the political system.

First, we argue how voters might form their beliefs. In political reality the relation between policies and outcomes z is rather complex for actors and especially for less informed voters. Voter are fundamentally uncertain regarding the true technological relations. We assume that voters have a specific perception of how an agricultural policy (x) (policy belief) translates into a specific state of the world. Of course, voters partly perceive the impact of policies on their individual welfare directly from their observed incomes or any other observable socio-economic welfare measure but cannot perfectly evaluate the results of the political technology due to imperfect information. In this case, voter apply simple heuristics to approximate the transformation of policies into their welfare.



#### Figure 1: Transmission of conflict of interest from society to legislature

A prominent example of individual desired state of the Worlds is the perception of policies on a right-left dimension which refers to a perception in terms of broader macro-political strategies. Voters have specific ideal point on the left-right scale, that is voters form believes which macro policies maximized their welfare. For example, employees prefer left to right policies, while the opposite holds for entrepreneurs. Beyond a left-right dimensions other relevant macro political dimensions are conceivable. In developing countries poverty reduction or food security strategies dominate fundamental value systems of actors.

Interest groups represent preferences of members of the society that were able to overcome the costs of organization for collective political action. Here, empirical and theoretical studies argue that mainly economic and demographic influence the emergence and success of interest (Becker, 1983; Olson, 1965; Peltzman, 1976). In consequence conflicts of interest among interest groups reflect societal conflicts of interest. Since larger groups like smallholder farmers in developing countries face higher costs of collective action, they engage less likely in rent-seeking than the well-organized small urban elites and large estate farmers (Birner and Resnick, 2010). Main factors that drive the incentive of smallholders to organize are the free-rider problematic, poverty and restricted access to the political circel living in the capital city. Thus, the beliefs of smallholders might underpresented in the policy arena. New engagement of international development agencies to promote pro-poor and pro-smallholder organizations focuses on overcoming the collecive action problem and increasing the political weight of smallholders in the policy process.

While the interaction among interest groups, voters and political actors can be seen as an interactive and dynamic process, interest groups are able to a change policy belief systems through knowledge or ideological based communication. Since they try to fill knowledge gaps of political actors and members, they can reduce the imperfect information about how policy translates to outcomes.

Finally, assuming legislators maximize their reelection probability it follows that legislator's belief systems are influenced by voter and interest groups beliefs. Their behaviour can formally be derived from maximizing political support function subject to available political technology (Magee and Brock, 1978; Tyers and Anderson,1992). While specific socio-economic conditions are spatially concentrated, electoral constituencies are heterogenous. Therefore, legislators in parliament represent different socio-economic groups and their preferences. Additonally the link among interest groups and individual legislators determines the political weights of socio-economic groups for different legislators. Van de Walle (2001) critizes interest groups approachs as hardly reflecting the ability of interest groups to influence political choices. These criticism relates to the concept of differencs within democratic and autocratic systems outlined above. Nevertheless, due to the new emergence of stakeholder organizations and the past period of democratization, we are interested in how communication resolves conflicts and if conflicts within society exists, that are not shifted to the legislators due to weak institutions.

Additionally, multi- and bilateral development agencies play an important role for policy design in developing countries that rely heavily on budget assistance and programme support. Due to this circumstance agencies have direct access to the political circle. Intuitively, they will not spend their money without monitoring and assisting the policy formulation which engenders tension between them and government. Having high knowledge and research capacity they are also able to fill knowledge gaps of uninformed voters and politicians which might lead to belief changes.

Overall, we are interested how far conflicting interests exist across the groups and how actors form their beliefs. In this regard we will focus on the belief formation subject to an interactive communication process among relevant agents. The next section turns to the question how communication influences belief formation and how policy positions after communication in networks can be derived empirically.

#### 2.2 The Role of Communication

Communication is structured and restricted, e.g. agents communicate directly only with a small subset of the total population. As moderators of a communication reputation of actors, the affiliation to the same socio-economic group and commom belief systems make intuitive sense. Conflicting beliefs between contacts engender costs of communication that actors try to circumvent and thus lower the probability of communication. Actors of high reputation are predominantly contacted to maximize the probability that the final policy agreement considers the beliefs of the sender. Increased welfare of members of the interest group or of the voter remain subject to the transformation of policy decisions to welfare and to the political power of the recipient. The same affiliation category increases the probability to interact due to commom communication platforms like regular meetings.

To analyze how conflicts of interest determine communication structures and how communication resolves or deepens conflicts, we define a binary network T, where  $T_{ij}=1$  indicates that agent i and agent j have an established communication tie.

Accordingly, we define the subset  $E_i = \{i \in E, T_{ij} = 1\}$  as the neighborhood of agent *i*, where it holds:

$$\sum_{j \in E_i} t_{ij} = 1, t_{ij} = \frac{T_{ij}}{\sum_{i \in E} T_{ij'}}$$
(1)

Accordingly,  $T = [t_{ij}]$  denotes the communication network, where  $t_{ij} > 0$  indicates that actor *i* pays attention to actor *j*. *T* is a stochastic matrix, i.e. for each actor the sum of total weights equals 1.

Within political communication actors update their political opinion Y<sub>i</sub><sup>0</sup> via taking weighted averages of their neighbours' beliefs Y<sub>j</sub><sup>0</sup> with t<sub>ij</sub> being the weight or trust that actor *i* places on the current belief of agent *j* and  $t_{ii}$  being the weight of actor's own opinion (see also Jackson, 2005):

$$Y_{i}^{*} = t_{ii}Y_{i}^{0} + \sum_{j \neq i} t_{ij}Y_{j}^{O}$$
<sup>(2)</sup>

Moreover, the initial belief  $Y_i^0$  of political actors just follows from the above outlined concept of support maximization subject to the political technology *A* :

$$Y_i^o = \underset{\alpha}{\operatorname{argmax}} S_i(z) \quad s.t. \quad z = \tilde{A}_i \alpha \tag{3}$$

The initial positions of voters and interests groups result from their heuristic evaluation of policy outcomes and technology and from their relatively stabel fundamental values. Rewriting equation 3 results:

$$Y_i^* = t_{ii}Y_i^0 + (1 - t_{ii}) \cdot \sum_j \hat{t}_{ij}Y_j^0 with : \hat{t}_{ij} = \frac{t_i j}{(1 - t_{ii})}$$
(4)

Actors form their initial opinion via Nerlove up-dating after they have received the private signals. As T is row normalized to one, (1-t<sub>ii</sub>) is the aggregated weight for all neighbors, i.e.~the influence or communication field of other agents.

Writing eq. (4) in matrix notation results after further rearrangements:

$$y^* = \left[I - \left(1 - t_{diag}\right)\hat{T}\right]^{-1} \cdot t_{diag} \cdot y^0$$
(5)

with  $M = \left[I - (1 - w_{diag})\hat{C}\right]^{-1} t_{diag}$  being the network multiplier which is similar to the Hubbell index (Hubbell, 1965).

How far communicaton is now able to reduce conflicts of interests after communication depends on the embededdness of actors with high conflicts of interests in the communication network and the openess of actors to other opinions, i.e. the level of own control. If policy conflicts, i.e. clashing belief systems, inhibit communication, communication is less likely to solve conflicts of interest in policy processes substantially. But if actors do not avoid communication across different belief system, communication is able to decrease political conflicts and to allow for policy learning. Conflicts of interests of actors will be solved subject to the weight of their opinion for other actors, i.e. their position in the influence field.

Please note that the belief up-dating in eq. 5 is similar, but still differs from the DeGroot model analyzed by Jackson (2005). In particular, note that for any row stochastic matrix  $\hat{T}$  belief formation converge to a well-defined limit y corresponding to the belief vector of actors reached after communication.

Accordingly, the limit opinion of each agent after communication results as a weighted average of the initial opinion of all agents before communication ( $Y^{0}$ ), where the weight of agent *j*'s initial opinion ( $Y_{i}^{0}$ ) for agent *i*'s opinion after communication ( $Y_{j}^{*}$ ) just equals the element  $M_{ij}$  of the multiplier matrix M.

Thus, the multiplier defines the field strength of agent j's initial opinion operating on agent i's final opinion.

Note that the multiplier includes all communication loops among actors, i.e. all direct and all indirect effects of *j*'s initial opinion on the opinion of agent *i* resulting from communication.

#### 2.3 An index of political conflicts of interest

To portray conflicts of interests existing between society and political actors, we construct an measure of conflict of interest as a weighted distance function *CI* which depends on the actor's policy positions and interests. Within the policy space actors form policy opinions and attach relative importance on policy issues of a set *P* with *P*=1,...,*p* policy issues. Thus, the index of conflict of interests can be calculated as the difference between policy position  $Y^{P}$  of two actors *i* and *j* weighted by the root of the product of their interests  $X^{P}$  on the specific policy dimension *p*:

$$CI_{ij}^{P} = \left|Y_{ij}^{P} - Y_{kj}^{P}\right| * \sqrt{X_{ij}^{P} \cdot X_{kj}^{P}}$$
(6)

But although the analysis of conflict of interest provides new insights into policy formulation processes, an index of conflict of interest will not be able to predict overt conflictful behaviour of factions engaged in policy formulation. Axelrod (1970) solely states that one can assume that the greater the conflict of interest the more likely is conflictful behaviour observable among actors. Understanding of the overt conflictual behaviour requires to include several other mechanisms like emotional factors on which this paper do not focus (see Axelrod, 1970).

#### 2.4 Conflict lines and conflict resolution

Hypotheses 1: Conflicts across belief systems

Due to imperfect information of actors about the true political technology, they could share policy beliefs but pursue clashing interests about the state of the World.

Hypotheses 2: Common belief systems within affiliation categories

Common belief systems are more likely to exists among same affiliation categories because members of these categories represent homogenous interests and their beliefs develop from the same information.

## Hypotheses 3: Policy brokers

Policy brokers are concerned about mediating interests of marginalized groups or about finding reasonable compromise to reach mutually acceptable policy decisions. Here, donor organizations might adopt this role, because they have recently promoted the organisation of pro-poor organisations and thus might favour the involvement of their preferences into the formulation process.

#### Hypotheses 4: Communication among actors

Conflicting interests in the state of the World lower the probability of communication among actors, because actors avoid controversial, ideological debates.

Hypotheses 5: Conflict resolution through communication

If communication is not determined by conflicts of interest about policy beliefs, conflicts decrease after communication.

## 3 Participatory Agricultural Policy-Making in Malawi

In April 2010, Malawi has launched the Agricultural Sector Wide Approach (ASWAp) and thereby signed the CAADP Compact. ASWAp aims at increasing agricultural productivity, improving food security and nutrition and developing agricultural markets (GOM, 2010). To reach these aims, the investment programme is structured into 3 Focus Areas, 1. Food security and Risk management, 2. Agri-business and market development and 3. Sustainable land and water management. The implementation of policy strategies will be enabled by promoting two key support services, 1. Technology generation and dissemination and 2. Institutional strengthening and capacity building. Civil society organisations critize that the state actors have mainly worked on the programme behind closed doors, although NEPAD attempts to include non-state actors into the formulation of policy programmes with CAADP (see CISAnet declaration).

In the next sections, we present an empirical application of our theoretical framework laid down before using data collected in Malawi after the CAADP compact has been signed. The goal of the empirical assessment is to understand the conflict potential of participatory processes and to assess the role of informal institutions, that are in place within a policy subsystem like agricultural policy, for conflict resolution.

#### 3.1 Defining of the policy subsystem agricultural policy

For the empirical assessment of conflicts of interest in participatory policy processes we need to identify all actors relevant for agricultural decision-making in Malawi and their political positions and interests. Moreover we are especially interested in their social network, because belief formation essentially takes places within social networks.

Social networks are defined as a specific set of linkages among a defined set of persons, while the linkages give information about the social behaviour of persons involved (Mitchell, 1969). In the case of Malawi's agricultural policy process, the defined set of persons corresponds to actors belonging to: a. the Executive, b. the Legislative, c. Donor organizations, d. Research organizations and e. Private sector organizations/Civil society organizations. We decided to focus on organizations and not on specific persons. The respondents are considered as corporative actors or experts of their organization if they reflect the linkages between their organization and others during the interviews in 2010 (for specification of the type of linkages see section 3.2).

The boundaries of the network must be consistently specified to identify valid social networks. We used two methods: the position and the reputation method. By exploring the institutional set-up of Malawi we collected information about formal influential players. Since these players possess decision-making power about agricultural policy due to their formal position within the system, they are of interest for assessing conflicts of interest in the subsystem. In order to add private sector organizations several documents were scanned that listed participants of agricultural policy workshops held during the last years. To extend and validate the collected information about the social network, we used results from

interviews with experts who are asked to mention the most influential players in Malawi. In the literature about social network analysis this method is called reputation method.

Combining the results from both methods, we finally compiled the complete list of actors being probably influential in the policy process. Within these list actors can be classified according to affiliation categories listed in Table 1.

Class	Affiliation category	Subgroup
Executive	Government	President
		Ministries
	Public Sector	Public Sector Agencies
		Local Government
Legislative	Legislative	Parties
-	-	Parliamentary committees
Donor	Donor	international
		national
Research	Research	College, University
Private sector organizations/	IC: Agricultural Industry and Trade	
Civil society organizations	IG: Agricultural Producer	
civil society organizations	Organisations and Cooperatives	
	IG: Economic Governance	
	IG: Trade Unions and Consumer	
	Organizations	
	Church	
	Media	
Legislative Donor Research Private sector organizations/ Civil society organizations	Legislative Donor Research IG: Agricultural Industry and Trade IG: Agricultural Producer Organisations and Cooperatives IG: Economic Governance IG: Trade Unions and Consumer Organizations Church Media	Local Government Parties Parliamentary committees international national College, University

#### Table 1: List of affiliation categories of stakeholders

#### 3.2 Communication Network

Members of the policy subsystem were asked to check on the list organizations with whom they have strong social relations. We use this network as indicator for communication among actors. Table 2 summarizes the network multipliers calculated according to eq. 5.

	GOV	PUB	LEG	DON	RES	AGIND	FARM	ECOGOV	CONSUM	CHURCH
GOV	0.822	0.076	0.130	0.160	0.086	0.068	0.181	0.135	0.158	0.063
PUB	0.041	0.732	0.119	0.098	0.102	0.076	0.066	0.121	0.077	0.101
LEG	0.005	0.009	0.627	0.002	0.025	0.003	0.002	0.011	0.005	0.006
DON	0.043	0.053	0.012	0.550	0.065	0.080	0.054	0.077	0.080	0.071
RES	0.011	0.019	0.050	0.022	0.518	0.042	0.018	0.043	0.048	0.072
AGIND	0.022	0.052	0.011	0.083	0.076	0.676	0.045	0.023	0.017	0.039
FARM	0.037	0.028	0.012	0.055	0.054	0.038	0.608	0.070	0.023	0.062
ECOGOV	0.010	0.017	0.028	0.019	0.027	0.007	0.019	0.447	0.072	0.053
CONSUM	0.004	0.005	0.003	0.004	0.012	0.002	0.002	0.032	0.509	0.005
CHURCH	0.005	0.010	0.006	0.007	0.033	0.008	0.007	0.041	0.012	0.528
Total	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000

Table 2: Network Multiplier

#### 3.3 Belief systems in Malawi

Within the subsystem actors form their position regarding the state of the world that is the final policy outcome. Additionally they form their beliefs regarding the political technology that has to be implemented to reach their desired state of the World. In this case we selected 8 different fundamental policy concerns that actors address with designing agricultural policy programmes. Table 3 summarizes these concerns. The political beliefs correspond to the three focus areas and key support services described in ASWAp. We developed a questionnaire for the interviews that encompasses questions about these 8 concerns and 4 pillars.

The usefulness of the interviews for a consistent analysis depends on how well the questionnaire reflects the beliefs systems actors face in Malawi. Thus, all questions were related to documents published during the formulation of the Agricultural Sector Wide Approach in Malawi and rely on information from official policy documents (GOM,2010). To ensure the comparability of answers interviewees were interviewed with standardized questionnaires.

With these standardized questionnaires, we are able to assign actors locations in the 8 policy concerns and 4 policy beliefs in that way that metric distances between them can be assessed empirically. Like other scholars we adopted the strategy to confront actors with 7-point ordinal scales of positions that have fixed and meaningful poles of scale anchor and meanings attached to scalar positions<sup>3</sup>. Besides the valid assessment of policy positions, it remains to identify the interviewee's interests in a specific policy dimension. Here, we used the distribution of 100 points across the 8 policy concerns and across the 4 pillars.

<u>State of the World.</u> The eight concerns in Table 3 are listed according the average interest organizations have revealed in the interviews. Since a major problem of the small-scale farm sector is the low productivity that has not improved substantially beyond the levels of 1970 and the high level of poor smallholders, the top level priority of welfare of smallholders makes intuituive sense for stakeholders in Malawi (Ø 21 %). Possible policy interventions to address especially smallholder constraints are the reorganisation of smallholder sector through promoting cooperatives and interlinking producers either with buyers or commercial estates. Similarly, facilitating and increasing access to improved inputs, new technologies and credits will contribute to productivity growth.

Poverty reduction partially coincides with the welfare of smallholders, although the first concern prioritizes food production (ø 18 %). Within the Malawi Growth and Development Strategy (MGDS 2006-2011) the government aims at reducing poverty from 52.4 % to a level of 30-35 %.

<sup>&</sup>lt;sup>3</sup> The questionnaires are based on a method that was used to identify policy preferences and interests of relevant actors of the Common Agricultural Policy of the European Union. See (Pappi and Henning , 1999) for more information.

Policy issue	Conflicting interests	Common interests
Welfare of smallholders	focus on maize productivity	reduce hunger and
	vs. diversification	malnutrition
Poverty reduction	strategies to reduce poverty	reduce poverty
Welfare of the agricultural	taxation vs. protection,	export earnings
export sector	structure of the sector	
Budget	agricultural budget share in	CAADP goal of 10% share in
	total budget	total budget
Environmental sustainability	budget allocation for	conservation of natural
,	environmental sustainability	resources for future
		generations
Gender issues	gender vs. no gender specific	lessen the vulnerability of
	nolicies	the noor
Welfare of pop-agricultural	promotion of agricultural	economic growth
inductry	industry	economic growth
muustry	industry	
	vs. agricultural industry	
Welfare of urban consumers	level of food prices	tood provision to urbans

The third concern (ø 14 %), welfare of the agricultural exports, relates to the potential of the sector to generate government revenue in agricultural based economies like Malawi. Moreover, agricultural export earnings account for 80 per cent of total export earnings. An highly discussed issue is the inclusion of small-scale farmers in the production of export crops as mentioned in the second pillar of ASWAp.

Due to the agreement of CADDP at least 10 % of the national budget should be allocated to the agricultural sector. In order to achieve the target of 6 per cent annual agricultural growth research studies note that the agricultural budget share has to increase to one third of total national budget. Within the budget 2009/2010 MK 33.54 billion are allocated to the Ministry of Agriculture and Food Security mainly for the purpose of increasing food security. This amounts to an agricultural budget share in total government spending of about 13 %. Actor's interests place this concern on the fourth positions in relation to the other concerns (**ø** 13 %). Major contributors to the recent increase in agricultural budget are the Farm Input Subsidy Programme and the rebuilding of extension services.

In view of the global discussion about environmental sustainability the relatively high interest of actors in this issue, even compared to the welfare of the non-agricultural industry sector, is not striking ( $\phi$  12 %). The conservation of the natural resource base is even mentioned as a sub-theme of the major theme "economic growth" within MGDS 2006-2011. The same arguments might hold for the next concern gender issues ( $\phi$  10 %), that are highly prioritized on the agendas of international agencies. Despite this potentially imposed interest gender specific policies might have the potential to lessen the vulnerability of the poor since female farmers are expected to gain higher crop yields than male farmers.

For the last two concerns organizations reveal a relatively low level of interest on average ( $\phi$  6 % and  $\phi$  5 % respectively).

Using a principal component analysis the desired states of the World can be divided into two main macro-policy strategies that focus both on food security (see figure 2). Conflicts of interest might arise about how far the political aims economic development and redistribution are achievable while budget is a scare resource.

<u>Policy Beliefs.</u> The first pillar addresses policies to achieve food security and to manage risks associated with food reserves at the national level. According to the document this will be achieved by increasing maize productivity, reducing post-harvest losses, diversifying food production and managing risks associated with food reserves at national level. Malnutrition will be reduced by agricultural diversification that for example includes promoting production of vegetables (see GOM, 2010).

The overall aim of policies summarized under the second pillars is to promote commercial agriculture, agro-processing and market development.

Within the third pillar policies will focus on the sustainable management of natural resources. Emphasis will be on conservation farming, afforestation, protection of fragile land and catchment areas, and rehabilitation of

degraded agricultural land. Activities on water will focus on water use efficiency and expanding the area under irrigation through the Greenbelt Initiative.

At least, policies under the fourth pillar or the key support services, respectively, will improve knowledge and information generation and dissemination to allow for efficient policy implementation under the above described three pillars.

Interestingly budget allocation within ASWAp do not match with revealed interests of organizations. While organizations would spend around one third of agricultural budget on Pillar 1, the ASWAp documents indicate a clear priority on the key support services (Pillar 4).

Policy issue	Conflicting interests	Common interests
Pillar 1: Food security &	Maize as main crop vs.	reach food security
risk Management	diversification of	
	production	
Pillar 2: Agribusiness &	exporting traditional	promote market oriented
market development	export crops vs. agri-	production
	industrialization	
Pillar 3: Land & water	Soil fertility vs. irrigation	improve agricultural
management	systems	production systems and
		save natural resources
Pillar 4: Institutional	restructure institutions	efficient and effective
capacity building	vs. increase budget for	institutions are needed
	current institutional	for programme
	framework	implementation

Table 4: Policy Beliefs

An explorative principal component analysis on the policy beliefs predicts that conflicts will predominantly occur within the formulation of pillar 4 (see figure 2). Here, organizations are clearly divided into two fractions: a. restructuring the current institutional set up and include the private sector and b. increase budget spent for the current institutions to enable them

working effectively. While the set of institutions a. consists of private sector organizations, donors and civil society organisations, the executive, legislative and public sector agencies constitute set b.

#### 3.4 Empirical Results

This section is organized into three parts. First, we describe conflict lines between groups of actors in both belief systems. Moreover, we present descriptive results about the correlation between conflicts and communication. This lays the basis to further investigate the relation between these two variables of interest. Finally, we respond to the question whether communication is able to reduce conflicts among actors.

<u>Conflict lines among affiliation categories.</u> For the analysis the conflicts of interest the individually calculated indizes of organizations were aggregated according to their affiliation to broader stakeholder categories that represent similiar interests or that are formal institutions (see Table 5). Descriptive results in Table 5 compared with the location of actors in the belief systems depict an image of conflict lines and their determinants. The following themes are discussed: the relation between desired states of the World and policy beliefs, conflicts among government and opposition, conflicts among the private and public sector and redistributive politics vs. economic development.

First, Table 5 indicates, that conflicts of interest in the policy belief system exceeds conflicts of interests about the state of the World. Thus organizations agree on the main macro-policy strategies: poverty reduction and food security. Organizations disagree on the relationsship between redistributive and general economic policies. In view of policy decisions the relation between the belief system might determine the ability to agree on mutually acceptable policies if actors share common policy beliefs but differ in their fundamental policy values. Here, we observe a positive correlation among conflicts of interest about the state of the World and policy beliefs. This leads to suggestions, that the effective formulation will be triggered by discussions about the future vision of Malawi and the adequate political technology. Policy deadlock and effective policy formulation depend on how far coalitions build on common desired states of the World and policy beliefs are able to cooperate and to find compromises. Compared to location of actors in the policy belief system (see figure 2), cluster of organizations are driven by the policy belief of restructuring the current instituional set-up or not, respectively. While actors from the broader categories executive, donor, agricultural industry and non-agricultural industry share the desired state of the World, as indicated by their relatively low conflicts of interest in row one, it is likely that they experience high conflicts of interests during the bargaining about agricultural policy. In terms of the theoretical model these actors believe in different political technologies, that transform political decisions into the same economic values. In this case they have clashing ideas about how the design of the institutional framework helps to develop the agricultural sector. The question about restructuring the institutional set-up of the agricultural sector is about the involvement of private sectors in the provision of key support services and the organization of agricultural extension services.

In a democracy there often arises the question how the opposition defines their politics compared to the government. Here, we observe the expected picture of clashing interests between the opposition and government, i.e. high indizes in row one and row 3 for the category legislative<sup>4</sup>. But note that the conflict of interest in the policy belief system among these actors vanishes, because both want to save the current institutional set-up.

Moreover we observe a conflict line that is driven by favoring redistributive politics more than general economic development. Consumer organizations and religous organizations have about 10 % higher conflicts of interest compared to the average conflict about the state of the World. These high conflict potential arises from their high preferences for specific socio-economic groups (compare position in figure 2). But it is remarkable that religiuos organisations have low conflicts of interests within the policy belief systems.

Additionally Table 5 demonstrates that conflicts of interests do not occur with national research organizations. Within both belief systems this organization has the lowest conflict of interest to all other organizations. This gives reason to hope, that beliefs are formed that reflect the knowledge based beliefs of research organizations.

To portray conflicts with the more powerful actors within the agricultural policy domain, rows 3-6 summarize the relative conflict of interest of stakeholder organisations with government and donors, respectively. For the policy belief system, the table predicts that interests and positions of government highly differ from positions and interests of interests groups while government is less likely to experience tensions with donors implementing their policy beliefs. In view of the conflict of interest among donors and government the results are in line with expectations, since government depends on budget support.

The following interpretation of the results is done according to the hypotheses that broader affiliation categories will share a common belief system, because they represent homogenous socio-economic interests.

Visually, we should observe highly negative figures in rows 7 and 8. Overall, conflicts of interest are lower among members of the same category than across categories (-3.61 % and -2.47 %, respectively). But, note that government and donors, compared with the average conflict of interest within groups, are likely to have controversial debates about agricultural policy decisions as indicated by their nearly even conflict of interest within and across groups. This might engender policy deadlocks, even if they share preferences about the state of the World, i.e. low conflicts of interest within their group for the state of the World.

<sup>&</sup>lt;sup>4</sup> Due to the concept of organizing actors in affiliation categories having in mind their formal positions, the conflict of interest of the legislative is the average across all parties in parliament, including the opposition. Note that the index is driven by the conflicts between the opposition and other actors.

	GOV	PUB	LEG	DON	RES	AGIND	FARM	ECOGOV	CONSUM	CHURCH
$\varnothing$ conflict Z	99.06	103.91	116	100.16	88.97	96.39	101.29	103.26	118.76	112.24
$\varnothing$ conflict A	170.23	152.99	134.12	165.24	127.92	178.92	148.96	175.25	175.44	136.76
CI(I,EXEC)-ØCI(J,EXEC)Z	-12.43%	-5.36%	21.31%	-6.87%	-18.02%	5.40%	11.35%	-13.43%	-8.72%	14.93%
CI(I,EXEC)-Ø CI(J,EXEC) A	-0.78%	-6.24%	-14.34%	-6.42%	-27.72%	14.97%	4.95%	3.19%	36.69%	-2.66%
$CI(I, DONOR) - \emptyset CI(J, DONOR) Z$	-7.89%	3.53%	22.88%	-6.98%	-9.10%	-3.05%	-2.65%	-1.35%	18.44%	9.79%
$CI(I, DONOR) - \emptyset CI(J, DONOR) A$	-3.58%	4.08%	5.10%	-1.54%	-26.59%	1.63%	-2.87%	0.15%	32.23%	-4.30%
CI(within)-CI(across) Z	-13.44%	6.84%	-9.78%	-8.32%		-8.31%	3.73%	29.37%		5.81%
CI(within)-CI(across) A	-0.85%	-16.92%	-30.29%	-1.78%		12.96%	-9.49%	63.47%		-15.35%
CI(TIE=1)-CI(TIE=0) Z	-1.98%	-4.39%	-11.14%	6.83%	-6.60%	9.36%	-11.45%	10.05%	7.54%	-8.18%
CI(TIE=1)-CI(TIE=0) A	7.81%	10.16%	29.01%	5.20%	16.75%	-11.70%	3.16%	-8.14%	-17.44%	-4.95%

Table 5: Conflicts of interest: state of the World and policy beliefs



Figure 2: Location of actors in a two-dimensional policy space

We continue with the relationship between communication and conflict of interest. The hypotheses predicts that conflicts of interests predominantly occur outside the communication network. Here, table 4 shows mixed results across belief systems and across categories. Communications is mostly determined by conflicts of interest about the state of the World. In contrast, conflicting interests about policy direction do not prohibit communication among actors as indicated by mostly positive figures in row 10. Thus, communication has the potential to solve policy conflicts about the direction of agricultural policy if the communication network is not substantially influenced by conflicts about the macro-political strategy.

The relationship between conflict and communication. Since high conflict of interests correspond to diverging belief systems, the hypotheses states, that conflict of interest lowers the probability of a communication tie between two actors. Table 6 reports the results of two probit models with the communication tie between two actors as dependent variable. To explain the variance in the dependent variable we use the both indizes of conflict of interest, the difference in reputation between the contacts and the reputation index of the contact with higher reputation. Conflicting beliefs between contacts engender costs of communication that actors try to circumvent and thus lower the probability of communication. The latter two variables reflect how power structures within the network determine interaction. We suggest, that the difference in reputation lowers the probability to interact, while every actor tries to establish communication ties with influential players. At the same time, conflicts of interest between the actors can moderate the probability to get in touch with elites. Thus, we include interaction effects between reputation and conflict of interest to consider distinguished political circles. Additionally, we control for existing ties between members of the same affiliation category. The same affiliation category increases the probability to interact due to commom communication platforms like regular meetings. The findings of the model without interaction effects are listed in table5 column one.

The coefficients of conflicts of interest show the exepcted signs when we take the results of the descriptive analysis into account. The higher the conflict between two actors about the state of the World, the lower gets the probability of communication. But the higher the

conflict of interest in the policy belief system, the more likely is an interaction between the actors. The effect of conflict about the state of the World makes even sense in terms of the hypotheses about communication and conflicts. Overall, communication is predominantly and positively determined by the affiliation category and the reputation index of the tie. In line with expectation the higher the difference in reputation between the actors, the lower is the probability to interact. A common affiliation category of actors increases the probability to communicate.

Since we suggests that conflicting interests moderate the probability to establish ties with elites, we now turn to the interpretation of model 2. The interaction effects show opposing signs compared to the coefficients of main effects of conflicts of interests. Thus, they reverse or lower, respectively, the effect of conflict of interest if the actors want to establish a communication tie with actors of high reputation. Combining the coefficients reveals that the elites of the network are less open to communication with actors of different policy beliefs. At the same time, communication with elites is to a lesser extent driven by conflicting preferences about the state of the World. This increases the perceived conflict line between government and interest groups described in the above part. Interest groups are not able to communicate their conflicting policy beliefs to the elites. But the model 2 again confirms that reputation influences communication among actors.

variable	Model I	Model II
conflict of interest Z	-0.0006	009*
	(0.001)	(0.005)
conflict of interest A	0.0001	0.0002
	(0.0008)	(0.003)
Reputation	0.859***	0.578***
	(0.156)	(0.196)
Difference in reputation	149	-0.494**
	(0.168)	(0.230)
same affiliation category	0.731***	0.747***
	(0.179)	(0.180)
rep*conflict of interest Z		0.006*
		(0.003)
rep*conflict of interest A		-0.0002
		(0.002)
constant	-1.559***	-1.037***
	(0.302)	(0.379)
pseudo R2	0.0736	0.0814
obs.	593	593

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Note: standard errors are given parantheses, \* indicates significance at the 10 percent level, \*\*\* indicates significance at the 5 percent level, \*\*\* indicates significance at the 1 percent level.

<u>Conflict resolution through communication.</u> We now turn to describe the effects of communication on conflicts of interest in the policy belief system. Figures in Table 7 base on calculations of conflicts of interests between two actors after they have discussed their opinions on agricultural policy direction. Policy beliefs after communication correspond to the influence model discussed in section 2.3. The interest of the actors in the specific policy dimension is not affected by communication.

Table 7 demonstrates strong support for the conflict reducing effect of communication among stakeholders. Combined with the results of the simple probit estimation the declined conflicts of interest for each organisation indicate that stakeholders overcome clashing intersts while formulating and discussing policies. Overall, we observe a decrease in conflicts of interest of about 34 % respectively. However the ability of communication to build consensus appears to depend on the type of organization. Obviously, stakeholder organisations are better able to reduce clashing interests than political actors.

To understand how communication structures influence conflict resolution, we compare the stakeholder organisations agricultural industry and agricultural producers. Table 2 summarizes the average network multiplier by organization. Both stakeholder organisation put relatively higher weights on their belief than other stakeholder organisations. First, this supports the idea that their potential to solve conflicts is lower, because they are not open to other beliefs. But table lend support that the potential to lower conflicts does not only depend on the own control, i.e. the own will to alter opinions, since agricultural industry organisations are on average better able to reduce their conflicts of interest than agricultural producer organizations. We argue that the network multipliers and the link between them and conflict of interest determine the ability of organisations to solve conflicts. In this case, the beliefs of the second and third most influential organisations, public sector agencies and donors, are driven to a lesser extent by the beliefs of agricultural producer organisations than by the beliefs of agricultural industry. Additionally, divergent beliefs have a negative effect on the network multipliers of agricultural producers. Clashing interests appear to determine the level of the weight which other organizations put on the beliefs of agricultural producers. They also put less weight on conflicting interests during the formation of their own beliefs. This suggests that their potential compared to the potential of the agricultural industry organizations to solve conflicts is strongly decreased by their position in the network and their communication structure.

		POL		DON	DON RES IG						
	GOV	PUB	LEG	DON	RES	AGIND	FARM	ECOGOV	CONSUM	CHURCH	Total
GOV	-0.185										
PUB	-0.241	-0.051									
LEG	-0.248	-0.182	-0.348								
DON	-0.275	-0.305	-0.275	-0.540							
RES	-0.294	-0.022	-0.325	-0.264							
AGIND	-0.341	-0.382	-0.380	-0.403	-0.478	-0.422					
FARM	-0.293	-0.244	-0.264	-0.294	-0.401	-0.395	-0.245				
ECOGOV	-0.286	-0.454	-0.416	-0.550	-0.591	-0.515	-0.407	-0.652			
CONSUM	-0.417	-0.458	-0.417	-0.417	-0.514	-0.475	-0.154	-0.559			
CHURCH	-0.321	-0.341	-0.141	-0.402	-0.508	-0.457	-0.387	-0.602	-0.473	-0.506	
Total	-0.281	-0.263	-0.274	-0.370	-0.328	-0.407	-0.307	-0.477	-0.410	-0.395	-0.341
Total Class		-0.271		-0.370	-0.328			-0.382	2		

# Table 7: Comparison of conflicts of interest before and after communcation

## 4 Conclusion

Inspired by the emergence of participatory policy processes this paper analyzes empirically conflicts of interest in agricultural policy processes and their resolution through communication in Malawi. Here, conflict resolution is especially influenced by how far conflict lines determine communication networks. The empirical analyses is based on the idea that electoral leverage and lobbying are able to transmit societal conflicts to the policy arena. Belief formation of actors, especially political actors, is modelled within restricted and structured communication networks.

To this end, influential actors within the agricultural policy domian seem to share preferences about the desired policy outcomes, but government dissent from stakeholder organizations about how fundamental policy goals like poverty reduction can be achieved. Here it is remarkable, that conflict is predominantly determined by clashing positions related to the institutional setup delivering key support services to the agricultural sector.

Further main findings of the empirical part are the dissent about fundamental values between government and opposition. On the one hand accountability of government to voters might determine this clashing interests, on the other hand the lack of responsibility tempts the opposition to show extreme positions and interests. Interestingly, the conflict between them vanishes within the policy belief system. This allows for political consensus between political actors while formulating policy programmes.

Since political communication networks are predominantly driven by reputation, positions of stakeholder organizations were partially neglected while political actors form their beliefs. In consequence conflicts of interest between government and interest groups decrease to a lesser extent than conflicts among interest groups. However, future research might focus on more advanced estimation techniques to explain communication structures, e.g. bayesian estimation techniques.

The descriptive results further depict the donors as brokers which connect interest groups with government.

## References

Axelrod, Robert . 1970. *Conflict of Interest - A Theory of Divergent Goals with Application to Politics.* Chicago: Markham Publishing Company.

Bates, Robert H. . 1981. *Markets and States in Tropical Africa - The Political Basis of Agricultural Politics.* Berkeley: University of California Press.

Becker, Gary S. 1983. 'A Theory of Competition Among Pressure Groups for Political Influence.' *The Quarterly Journal of Economics* 98(3): 371-400.

Birner, Regina and Danielle Resnick. 2010. 'The Political Economy of Policies for Smallholder Agriculture.' *World Development* 38(10): 1442 -1452.

Dahrendorf, Ralf. 1958. 'Toward a Theory of Social Conflict.' *The Journal of Conflict Resolution* 2(2):. 170-183.

Fink, Clinton F. 1968. 'Some Conceptual Difficulties in the Theory of Social Conflict.' *The Journal of Conflict Resolution* 12(4): 412-460.

GOM. 2010. The Ministry of Agriculture and Food Security, Republic of Malawi.' Agriculture Sector Wide Approach (ASWAp).' *Malawi's Prioritised and Harmonised Agricultural Development Agenda*.

Hubbell, Charles H. . 1965. 'An Input-output Approach to Clique Identification.' *Sociometry* 28(4): 377-399.

Jackson, Matthew O. . 2005. 'The Economics of Social Networks.' *Working Paper 1237*, California Institute of Technology. Division of the Humanities and Social Sciences.

Krueger, Anne O., Maurice Schiff, and Alberto Valdés , editors. 1991. *The Political Economy of Agricultural Pricing Policy*. Baltimore, MD: Johns Hopkins University Press.

Mack, R.W. and R.C. Snyder. 1957. 'The Analysis of Social Conflict - Toward an Overview and Synthesis.' *Journal of Conflict Resolution* 1(2): 212-248.

Magee, S. and W. Brock. 1978. 'The Economics of Special Interest Policies: The Case of the Tariff.' *American Economic Review* 68(2): 246-250.

Mitchell, James C. 1969. 'The Concept and Use of Social Networks.' *In Social Networks in Urban Situations: Analyses of Social Relationships in Central African Town*, ed. J. C. Mitchell. Manchester: 1-50.

Olson, Mancur. 1965. *The Logic of Collective Action*. Cambridge (Mass.): Harvard University Press.

Pappi, Franz U. and Christian H. C. A. Henning. 1999. 'The Organization of Influence on EC's Common Agricultural Policy: A Network Approach.' *European Journal of Political Research*,36 (2): 257-281.

Peltzman, Sam. 1976. 'Toward a More General Theory of Regulation.' *Journal of Law and Economic* 199: 211-240.

Quirk, Paul J. .1989. 'The Cooperative Resolution of Policy Conflict.' *The American Political Science Review* 83(3): 905-921.

Tyers, Rod and Kym Anderson. 1992. *Disarray in World Food Markets*. Cambridge, New York, Melbourne: Cambridge University Press.

van de Walle, Nicolas. 2001. *African Economics and the Politics of Permanent Crisis*. New York: Cambridge University Press.