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The Politics of Climate Change Adaptation in Development: Authority, Resource Control and State Intervention in Rural Zambia

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ABSTRACT *In this article, we call for more attention to the national and local politics of climate change in developing countries, and contribute to this through a study of climate change adaptation interventions in Zambia. We show how such interventions form part of central state efforts to extend authority and control over natural resources, and how competing institutional actors such as local governments and chiefs seek to counter this. The article thereby shows how climate change adaptation is emerging as a new arena for deep-seated political and institutional struggles over issues such as authority, land control and devolution in development.*

1. Introduction

While much has been written on the North-South divide in international climate change politics, less is known about how the global climate change agenda plays out in the domestic politics of developing countries. A better understanding of this is however important, not only from a climate policy perspective, but also in broader academic terms. As an omnipresent physical reality and a powerful global narrative, the climate change agenda is increasingly evident in international and national discourses of development and “green growth” (Death, 2015). It thereby provides an important field for exploring how global green agendas are incorporated into – and domesticated by – the wider politics of resource governance and development in developing countries.

In this respect, recent years have seen an emerging body of literature that critically explores how schemes to reduce carbon emissions in developing countries may lead to commodification and “green grabbing” of local natural resources (Fairhead, Leach, & Scoones, 2012; Leach, Fairhead, & Fraser, 2012; Pasgaard, 2015). In this work, there has been particular focus on the role of global actors such as the international development banks, the UN, private business, scientists and international NGOs in driving and shaping climate interventions in development. In this article we wish to complement this work by focusing on two aspects that have so far received less attention:

Firstly, while acknowledging the substantial influence of global actors on climate discourses and interventions in development, we wish to draw more attention to the role of domestic actors in shaping climate discourses and interventions. What are the interests of central state actors and local institutional players in climate change policies and interventions in developing countries, and how do they seek to further these interests in specific climate change interventions?

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Secondly, we wish to emphasise the particular politics of climate change *adaptation* in rural development. So far, most critical studies of climate change interventions in developing countries have focused on schemes that aim to mitigate carbon emissions. There has been less attention to the politics of the numerous policies and projects that aim to help farmers, pastoralists and other groups adapt to the already ongoing impacts of climate change such as intensified floods and droughts (exceptions include Dodman & Mitlin, 2015; Ojha et al., 2015; Smucker et al. 2015).

This article therefore echoes recent calls for more studies on the domestic politics of climate change in developing countries (Dodman & Mitlin, 2015; Eguavoen, Schulz, de Wit, Weisser, & Müller-Mahn, 2015; Lockwood, 2013), and focuses in particular on the emerging politics of climate change adaptation. In so doing, we suggest that a focus on institutional struggles over authority can help illuminate some of the key interests that drive state agencies and other institutional actors in climate change interventions. In extension of this, we argue that state policies and interventions on climate change adaptation in development can be understood as a form of governmentality through which state agencies seek to assert control over rural citizens and resources. Such efforts, however, may be contested by competing local institutions and are not necessarily successful.

We explore these dynamics through a study of climate politics in rural Zambia, showing how an initially externally driven climate change agenda has become an arena for struggles over institutional authority and resource control between central state agencies, local governments, chiefs and other actors. Through a brief review of Zambia's political and institutional history, we discuss first how climate change adaptation interventions serve as a means for the country's political elites to present themselves favorably to supporters and media in the politics of food, energy and rural development.

We then look beyond these immediate strategic interests to argue that, more fundamentally, government supported climate adaptation interventions also serve as a vehicle for central state agencies to assert and legitimise central state authority and natural resource control in a rural setting where state authority is otherwise fragmented. We show this by examining government-led climate adaptation interventions in two districts in southwestern Zambia, with a particular focus on Zambia's Disaster Management and Mitigation Unit and the establishment of a voluntary flood resettlement scheme that has been touted as a demonstration case for climate change adaptation in the area. We discuss how climate change adaptation has served as a means for the agency to legitimately assert its presence and authority in the area, and how the resettlement scheme – can be seen as a means to order and re-organise local production systems and transfer land rights from a customary to a statutory regime.

We show also how chiefs, local governments and other local actors seek to counter this and establish their own legitimacy through climate change adaptation. We conclude that climate change adaptation in rural areas of African countries should be understood as more than isolated donor interventions. Rather, they are emerging new arenas for political and institutional contestation over well-known themes such as land control, resettlement, decentralization and customary versus statutory authority.

2. Climate Change Interventions and Institutional Authority in Africa

A key feature of most policies and discourses on climate change adaptation is an emphasis on the need for intervention. While practices of so-called “autonomous” climate change adaptation are well documented (such as individual farmers responding to changing rainfall patterns on their own account), most policies and programs address “planned adaptation”, i.e. externally induced measures that implement, support and guide citizen's adaptation on the ground (Fussel, 2007). Adaptation interventions thereby touch on fundamental aspects of production, livelihoods and social organization, dealing as they do with how people should farm, use resources, generate income and organise themselves under changing environmental conditions. Hence although policies and project documents may serve to depoliticise adaptation interventions (Ferguson, 1990), they are at heart deeply political in nature. Analytically, we must therefore go beyond studying climate change interventions as an

isolated field of technical practices, and instead approach them as political arenas linked to broader ongoing struggles over power and resource control between the involved actors (Eguavoen et al., 2015).

A wide range of actors are engaged in implementing climate change interventions. In this article we focus in particular on the role of central state agencies, i.e. the technical line agencies under the central government that work on agriculture, water, land and disaster management at national and local levels. Typically such agencies have a national presence in a parent ministry or similar body, as well as subnational branches in the form of local extension offices or other forms of implementing bodies¹.

Such state agencies are diverse in nature and should not be seen as passive implementers of a singular state “vision” (Li, 2005). Nevertheless, as state agencies they share certain characteristics. This includes the need to be attentive to the prevailing interests and policies of ruling political elites, but also – more fundamentally – the need to make populations and resources governable in the first place. As Scott (1998) has famously showed, one aspect of this is the process whereby state actors seek to make people and natural resources “legible” and thus manageable through a repertoire of administrative mechanisms and technologies of knowledge production. Other related work has pointed to the territorializing strategies of state actors, such as assigning particular forms of land use and land rights to particular bounded spaces (Vandergeest & Peluso, 1995).

Yet such expressions of governmentality (Foucault, 2007) are not straightforward undertakings. Firstly, they are not exclusive to state agencies, and should be seen as dynamic process involving a range of actors (Li, 2005). Secondly and in extension of this, state agencies are rarely hegemonic in their reach and authority. This is especially so in the rural African context, which is our setting here. On the ground, state agencies in African countries often suffer from limited resources and overlapping mandates, which constrain and dilute their scope for action. At the same time they compete for authority with other actors – such as local governments or customary authorities who variously associate with or distance themselves from the central state, or NGOs who establish semi-autonomous modes of organization and act as state-like extension agents (Lund, 2006; Ribot, 2007). In this context of institutional multiplicity and fragmentation, the authority of state agencies to govern people and natural resources is not cast in stone. It needs continuous maintenance and expansion, and it is contested and claimed by a variety of other parties. In this process, legitimacy is important: With Weber (2009) we understand authority here as legitimate power, and we see it as the product of ongoing legitimizing practices by a range of actors (Sikor & Lund, 2009).

Climate interventions thus take place in a context where state agencies and other actors continuously seek to establish and legitimise their authority to govern resources and citizens. Such a perspective offers, we suggest, fruitful insights into the political and institutional dynamics of climate change adaptation efforts in development, and the following analysis of climate change adaptation in Zambia draws on such an approach.

3. Methods

Methodologically, the approach discussed above implies combining structural analysis and process analysis. Our research has applied a dual emphasis on understanding the broader political and institutional context within which climate adaptation interventions in Zambia take part, and examining the interests and agency of institutional actors in specific adaptation interventions on the ground.

Fieldwork for the current article was conducted in Zambia during the period 2012–2016, and involved the following main steps: (i) contextual literature study of the political and economic history of Zambia; (ii) national level interviews tracing the development of climate change and related policies and politics, (iii) group interviews and exercises with key actors in the study area to map adaptation interventions, (iv) interviews with local institutional actors and key informants, aimed at identifying institutional characteristics and interactions in the study area, (v) process interviews which traced the development of the climate change agenda and specific interventions in the study area over time, and (vi) archival study, including newspaper articles, government documents and project literature.

A total of 59 interviews were conducted for the purposes of this article. All were qualitative and used a semi-structured format. In the process interviews, the interviewees were asked to recount the unfolding of selected floods, droughts and adaptation interventions in detail, including their own and other people's actions and interactions. The actors interviewed were (i) staff in government departments at national and district level working in agriculture, water, disaster management, forestry, community development, and the district administration; (ii) local government councilors and executive and technical staff, (iii) members of the Chief-Headman structure and CBOs; (iv) NGO representatives at national and local levels; and (v) key informants and resource persons in the study area.

It should be noted that the current article focuses on the agency of institutional actors at national and district level. Our research also involved an in-depth study of how households respond to and negotiate adaptation interventions and institutions, including additional qualitative interviews and a survey of 200 households. This is the subject of a separate article (Mweemba, Funder, & Nyambe, in prep.) and will therefore not be discussed here.

4. The Political and Institutional Context of Climate Change

The physical manifestation of climate change in Zambia is typically described as an increase in the frequency of extreme events such as floods and droughts, and slow-onset change such as changing temperatures and rainfall patterns (GRZ, 2010a). The impacts from floods and drought include loss of life, crops and livestock, as well as displacement and damage to infrastructure. Meanwhile, rising temperatures and changing rainfall patterns threaten the maize economy, especially in the dry southern parts of the country. Climate change also threatens the country's hydropower sector, which supplies some 95 percent of Zambia's electricity supply, including the politically and economically vital copper industry (Yamba et al., 2011). Studies have suggested a correlation between floods, drought and Zambia's GDP, and predict major future losses to the economy on this account (Jain, 2007; Thurlow, Zhu, & Diao, 2009).

Zambia is currently in the process of developing an institutional framework aimed at addressing these impacts. So far, this has included a National Adaptation Plan of Action, a crosscutting National Climate Change Response Strategy, and most recently the so-called Intended Nationally Determined Contribution (INDC) which forms part of the global climate change agreement reached at the COP21 conference in Paris in 2015. Like many other African countries, Zambia's pledges under the agreement go beyond emissions reductions to also include a strong emphasis on adaptation. A main adaptation priority in the INDC is achievement of food security through diversification and "climate smart" approaches to crop, livestock and fisheries production. Other priorities include water management, land use planning, climate resilient infrastructure and improved climate information services.

For reasons of brevity, we will not discuss these strategies and plans in further detail here, except to point out one particular feature – namely that multilateral and bilateral donors have played a key role in their development. Indeed, since 1992 virtually all major policies, acts and plans related to disaster management and climate change adaptation in Zambia have been financially and technically supported by multilateral or bilateral donors. UN organizations and the World Bank have played a particularly prominent role, providing substantial financial support and technical assistance to the initiation, preparation and implementation of the institutional framework (Funder, 2016; Funder, Mweemba, & Nyambe, 2013).

However, it would be problematic to conclude that climate change is only a donor agenda in Zambia, isolated from domestic political interests. While it is well known that the general influence of donors on Zambia's policy environment was substantial during the 1980s and 1990s (Abrahamsen, 2000), subsequent research into donor-government interactions has highlighted that Zambia's political elites were a good deal more adept at manipulating and exploiting donor agendas than is sometimes assumed (Fraser, 2008; Rakner, 2012). This is also reflected in today's climate change agenda. While the issue is not a top priority for the central Zambian state and its political and bureaucratic elites, it

does afford certain strategic opportunities. To understand this, we must briefly consider the current political environment in which Zambia's state agencies operate.

Post-independence politics in Zambia were initially characterised by Kaunda's nationalist developmentalist paradigm of the 1970s and '80s, in which the central state was seen to play the key role in leading and steering economic development. Kaunda's philosophy of 'humanist development' initially found broad legitimacy among citizens, helped along by a well-established local presence of the ruling United National Independence Party (UNIP) in most rural areas (Nasong'o, 2005; Phiri, 2006). However, with rising debts and donor dependency UNIP were increasingly forced into a wavering ideological and political course, and in 1991 multiparty elections introduced a regime change and more neoliberal policies. The structural adjustment reforms of the International Monetary Fund (IMF) led to deregulation and withdrawal of the central state in a number of key sectors, including agriculture.

Since then, Zambia's changing governments have presided in a far more fragmented political landscape than was the case under Kaunda's developmental state. A variety of new actors has emerged within and around the central state, including new parties and political factions, chiefs and business interests (Gould, 2010). Ethnic politics persist, although their discursive articulation fluctuates (Posner, 2005). The influence of new foreign economic interests, especially from China and South Africa, add further complexities (Kragelund, 2014). In today's Zambia, a range of different forces thus compete for or restrain the power and legitimacy of the central state.

Moreover, public legitimacy of the central state and its ruling government does matter, not least in terms of election politics. Unlike some other countries in the region, Zambia has had relatively peaceful transitions between governments, and the country has largely avoided major civil conflict. However, in the late 1980s and early 1990s a number of food riots erupted, spurred on by price hikes on maize (essentially doubling in price) as subsidies were removed under structural adjustment. The riots are considered a contributing factor to Kaunda losing power in the elections soon after. At the same time, the booming economy during the 2000s raised expectations among voters – expectations that have recently turned to disappointment and a growing discontent as global copper prices have declined and the national economy has faltered. In other words, elections do matter in Zambia. Votes and followers do not come automatically and politicians must be seen to "do something" – whether through broad development efforts or factional patronage.

Finally and importantly, the central state has limited reach on the ground. With the fall of UNIP, the central hold of political elites over local politics diminished significantly (Gould, 2010). Moreover, the structural adjustment reforms significantly reduced the physical presence and capacity of state agencies on the ground. The civil service – which already suffered from the declining economy in the 1980s – was severely cut back during the 1990s. The result was a considerable setback in what limited capacity has been established to plan and implement national and rural development and provide public service delivery (Phiri, 2006). Central state capacity is therefore in many rural areas effectively more limited now than in the early 1980s, including agricultural extension and natural resource management sectors.

5. Government Interests in Climate Change Adaptation

This political context has implications for how Zambia's recent governments and state agencies have related to climate change. Firstly, the country's recurring floods and droughts cannot simply be ignored. Since the early 1990s, natural disasters have increasingly become publicised in national newspapers and reported on TV. Floods and droughts in even the most isolated areas are typically reported on by national media, and questions are asked of responsible ministers and their staff on how they will respond. In the past decade, floods have also become an annual problem in the capital itself, raising yet more attention to climate change in the media and bringing urban voters into play. Responding to natural disasters is therefore a matter of some priority for the political leadership, in order to ensure continued support from followers and voters, and as an opportunity for demonstrating

statesmanship. Visits by ministers to disaster-affected areas are thus a predictable part of the post-disaster process in Zambia.

Secondly, there are the politics of food. Zambia's colonial and post-colonial agricultural policies have been detrimental to the development of smallholder agriculture, and the agricultural sector remains overshadowed by the copper industry and the tendency for capital flows and government policies to favour the latter (Battera, 2016). While the current agricultural policy is in principle focused on developing smallholder agriculture, there has been a strong interest in Zambia's recent governments to promote large-scale commercial farming on the fairly extensive farming land that is still available in Zambia. Nevertheless, providing some form of support to smallholder farmers through input packages and other means is important to ensure continued political support. In a relatively peaceful country, the riots and dissatisfaction with escalating food prices in the late 1980s and 1990s are well remembered in the national memory and by national politicians. As Zambia's late President Michael Sata once remarked: "Kaunda's government was overthrown because of food riots and I don't want food riots." (Reuters, 2013).

Disaster relief and climate adaptation interventions typically address food security and smallholder agriculture on the ground, and are therefore a convenient means for the ruling government to display action on these issues (Whitfield et al., 2015). Zambia's current President Lungu has on several occasions – and especially in the run-up to the 2016 elections – publically linked agriculture and food security concerns to climate change, and called for his ministries to address the issue (e.g. Daily Nation, 2016; The Post, 2016; Times of Zambia, 2016a).

Thirdly and in extension of this, while donor funding to Zambia has declined markedly in recent years, it remains an opportune means to boost national budgets in some sectors. While total ODA fell from 24 per cent to 11 per cent of Zambia's Gross National Income from 2004–2012, the so-called "Green ODA" has increased and now constitutes 30 per cent of total ODA to the country (OECD, 2014). Climate change financing has particularly bright prospects. According to one assessment, USD 700 million have so far been pledged towards climate change activities in Zambia for the period 2012–2017 (GRZ, 2011), not including currently developing investments in energy diversification and other sectors. As the global mechanisms for public and private climate financing evolve in the coming years, this may increase further. Zambia's submission to the Paris Agreement goes so far as to estimate that some USD 20 billion are needed for climate change adaptation alone if the country is to address its needs by 2030, of which the bulk will be required to come from public international financing and private sector investments (GRZ, 2015b). Whether such large sums will materialise anytime soon is doubtful, and should be seen as part of the negotiation tactics in international climate financing. Nevertheless, they indicate that substantial financing is potentially in play.

Two areas of rural development that have so far benefitted from international climate financing is climate resilient road construction and – of particular relevance to us here – rural agricultural development. The latter includes support to programmes and projects that support central state extension activities in agricultural and natural resource management, which have been chronically underfunded since cutbacks in the civil service during the IMF Structural Adjustment Programs (Funder et al., 2013). Climate change funding to rural areas thereby helps finance operation of the rural civil service and technical sector agencies by "fuelling the motorbikes" of the civil service with development assistance, thereby freeing up government funds for other purposes. It is thus not unusual for state agencies with new donor-funded programs to have their annual government budgets cut accordingly.

Finally, a major energy crisis during 2015 and 2016 drew attention to possible links between climate change and the country's energy supply. Reduced water levels in the country's vital hydropower reservoirs significantly affected the electricity supply to the country's copper mines, and led to daily power outages in the major urban and industrial centers. The political opposition and some technical experts argued that the hydropower crisis was caused by the government's poor water and energy management, but the President and responsible Ministers blamed the crisis on climate change (e.g. Lusaka Times, 2016b; Times of Zambia, 2016b). In the run-up to the 2016 elections public critique of the situation intensified and the government fast-tracked national efforts to diversify the energy supply.

This included efforts to secure financing from the World Bank and private investors for large-scale solar plants, with one recently initiated scheme aspiring to attract foreign investments worth a total of USD 1.2 Billion.

These developments should not be taken to mean that climate change has become a defining or core element in the strategies and discourses of Zambia's political elites, or that it has so far altered the political landscape in fundamental ways. Rather, our point here is that the climate change adaptation agenda in Zambia serves the immediate interests of the central government well, by providing an opportunity for political discourse, a source of funding and an opportunity to show action on politically sensitive issues such as food security and energy supply.

6. The Local Institutional Landscape: Multiplicity and Competition

Apart from these immediate political interests in the climate change agenda, however, there is a further and less overt aspect of the politics of climate change adaptation – namely the opportunities it affords for asserting and legitimizing the authority and resource control of the central state in rural areas. In the remainder of the article, we focus on this feature, by examining how state agencies have addressed climate change adaptation in two adjoining districts in southwestern Zambia.

Kazungula and Sesheke are two highly rural and mainly semi-arid districts located along the Zambezi River. Infrastructure is limited and large parts of the districts are sparsely populated. Several ethnic groups inhabit the area, including Tonga, Toka-Leya and Lozi. Rain-fed maize is an important staple and cash crop, complemented in some areas by millet and sorghum. Cattle husbandry forms a key part of local production systems, especially among the Lozi. Poverty and food insecurity is high, with more than 60 per cent of the population categorised as food insecure in some areas. Maize yields have been declining in the past decades, and cattle diseases in the 1990s severely affected the livestock economy. The districts' substantial tracts of un-cultivated land are designated either as communal land under the authority of chiefs, or State Land in the form of Forest Reserves and other protected areas.

Like other rural districts in Zambia, the local institutional landscape in Kazungula and Sesheke is characterised by ongoing efforts by several institutional actors to establish and consolidate their authority in a context where no one actor has hegemonic control over resources and citizens (Sitko, 2010). The central state is present through the District Administration – headed by the centrally appointed and powerful District Commissioner – and a variety of deconcentrated state agencies within agriculture, water, fisheries, forestry etc. While typically anxious to “open up the area for development” as one District Commissioner put it, these agencies are nevertheless under-staffed and under-budgeted, especially in the more remote parts of the districts.

Operating alongside the state agencies is the local government structure, which consists of democratically elected District Councils with sub-district structures at Ward and Village level. The Councils are charged with the responsibility of delivering a variety of services including water development, feeder roads and various planning activities. In practice, they have a very limited revenue base and rely on technical assistance from state agencies. This is a source of ongoing frustration for the Councils, who are eager to justify their position and demonstrate action vis-à-vis their electorate.

Chiefs and the associated headman structure also play an important role. As elsewhere, the colonial British administration in the area governed through the principle of indirect rule, whereby local chiefs acted as a means of colonial control and revenue extraction. Following independence, the nationalist government sought to limit the powers of chiefs, who since then have been engaged in an ongoing struggle with the changing governments to restore their influence and authority in both local and national politics. A particular bone of contention has been the role of chiefs in land control. Statutory law recognises chiefs and affords them a key role in land allocation on Customary Lands, and in practice chiefs also play a major role in conflict resolution over e.g. water and grazing resources. However, this authority is threatened by current land laws, which facilitate conversion of Customary

Land to private leaseholds, thereby transferring control of Customary Land to the central state – a major concern for chiefs (Brown, 2005; Haller, 2012; Sitko, 2010).

Other institutional actors influencing local politics include local members of parliament (MPs), who tend to base their support on patronage ties and a critique of state agencies for not attending to local development problems. A range of international and domestic NGOs also operate in the districts, typically funded through international donors and with a focus on development projects and supporting establishment of community organizations to facilitate their implementation.

In sum, while the power and authority of the central state should not be glossed over, it is nevertheless a contested authority with imperfect reach in a rural setting where settlement, infrastructure and agricultural expansion is limited. While the District Councils, chiefs and other actors such as MPs can all claim some form of association with the state and its “public authority” (Lund, 2006), they are at the same time eager to carve out their own independent roles in local resource control, and as key institutional actors with legitimate authority of their own. This includes the climate change agenda, to which we now turn.

7. Emergence of a Rural Climate Change Agenda

Until the mid-2000s, the notion of climate change was not widespread among the institutional actors in Kazungula and Sesheke. However, in 2004–2005 a major drought affected both districts severely, and in the subsequent four rainy seasons from 2005–2009 the area experienced major disruptive floods that required emergency response. This included sudden and major floods on tributaries of the Zambezi in the 2005–2006 season, which affected some 4,000 people and displaced approximately 900 persons. Of these, several hundred camped outside the Kazungula District Council for up to 4 months. The floods of the 2006–2007 season damaged roads and other infrastructure in Sesheke district, and in 2007–2008 major flooding of the Zambezi affected some 10,000 people in the two districts through displacement and/or loss of crops and livestock. The following year, another major flooding of the Zambezi affected Sesheke district in particular.

While the Zambezi floods annually as part of its natural cycle, and occasional droughts have always occurred, the unusual intensity, impact and short succession of these events caught the attention of international NGOs, donors and media, who linked them to climate change in newspaper articles and interviews, on websites, and in project documents- and materials (Funder et al., 2013). Contemporary studies of climate change impacts on the Zambian economy compounded this link (Jain, 2007; Thurlow et al., 2009).

Kazungula and Sesheke, where the impacts had been particularly severe, soon became known as some of the most climate-affected districts in Zambia. This made them obvious targets for donor-led adaptation interventions, and led to the initiation of a number of climate change projects in the two districts. NGOs such as Care, Red Cross, Caritas and WWF were already established in the area and now commenced community based climate adaptation projects in addition to their existing activities. This included introduction of conservation agriculture techniques, efforts to promote goats (who are more drought tolerant) rather than cattle as livestock, food banks and alternative income generation activities such as fish ponds. Through the extension advice provided during these activities, and associated planning meetings and stakeholder workshops, the concept of climate change began to be applied by staff in the state agencies and District Councils. The term also became known and applied by headmen in the chiefly structure, who acted as community gatekeepers for NGO projects (Mweemba et al., *in prep*).

NGOs and donor agencies thus played a key role in introducing the discourse of climate change in Kazungula and Sesheke. However, rather than just an “external agenda” separate from and irrelevant to Zambian institutions in the area, the narrative of climate change and associated adaptation interventions have become part of the broader efforts of the central state to assert its presence at the local level. In the following, we illustrate this through the workings of one particular central state agency, namely the Disaster Management and Mitigation Unit.

8. Building Mechanisms for Intervention: the Case of the DMMU

Established under the Vice President's Office in 1994, the Disaster Management and Mitigation Unit (DMMU) is the central state's main agency for addressing disasters such as floods and droughts. It was originally an exclusively central level agency, operating out of Lusaka on an ad hoc basis in response to disasters around the country. However, in 2005 a new policy set down a more holistic approach towards prevention and mitigation of disasters, and linked it to broader development issues (GRZ, 2005). It emphasised the responsibility of the state – as represented by the DMMU – to protect its citizens, and to include them actively in disaster management. The main vehicle for this was an expansion of the institutional framework for disaster management from the national to the provincial, district and community level. This was to take place under the overall authority of the DMMU, with its strong convening powers as an agency under the Vice President's Office.

The policy thereby asserted the role of the central state in addressing disasters, and sought to engineer a nationwide infrastructure for responding to floods, droughts and other disasters under the overall control of the DMMU. Yet this was easier said than done. Apart from the formidable task of developing a new institutional framework across the country, the DMMU had so far only been a transient visitor in most districts and was looked upon skeptically by local governments, local MPs and chiefs, who criticised them for being inefficient and remote.

However, in Kazungula and Sesheke the drought of 2004–2005 and especially the floods of 2005–2009 helped the DMMU address this challenge. Firstly, the disasters facilitated the development of an institutional framework on the ground. With several serious events in short succession the DMMU established itself as a well-known actor in the area and played a pivotal role during and after the floods. It acted as intermediary between local agencies and international donor assistance; planned for the District Council to temporarily accommodate displaced people on nearby land; coordinated the food relief provided by NGOs; and facilitated support to reconstruction of roads and other infrastructure. Apart from these immediate responses, it also worked to invigorate and consolidate the so-called District Disaster Management Committees, an otherwise dormant and largely dysfunctional body consisting of relevant sector agencies, local government and selected NGOs. In extension of this, the DMMU worked with NGOs such as Red Cross to establish so-called Satellite Disaster Management Committees as a means of organizing community engagement in flood and drought management.

In addition to this development of the DMMU's institutional base, the 2005–2009 floods in Kazungula and Sesheke also allowed the DMMU to expand its local mandate from short term disaster management to long-term climate change adaptation. As the floods became linked to climate change, they were no longer articulated as occasional freak events, but as the result of an enduring, long-term climate shift, which required enduring, long-term state support. DMMU staff actively promoted this notion: They articulated it at district and sub district meetings, brought it up during local and national media interviews, and published material on climate change and its implications for rural development efforts (GRZ, 2010b). This allowed the DMMU to claim a different scope and timeframe for their interventions in the districts. During interviews, a district agriculture officer explained that because of climate change, the DMMU had become a “long-term stakeholder” in Kazungula, while a Council social worker reflected that “since the floods are here to stay, so is the DMMU”.

In the donor-funded climate change adaptation projects that emerged after the floods, the DMMU thereby became a “natural partner in adaptation work” as one NGO worker put it. This was supported by policy developments at the national level. In 2015, the Disaster Management Policy was revised, with a greater emphasis on climate change in the DMMU's role, including a specific mandate to build community “resilience” towards climate change and capacity building among local institutions (GRZ, 2015a).

The DMMU's interventions during and after the floods in Kazungula and Sesheke thus served to develop and expand the presence and mandate of a central state agency on the ground, including an institutional mechanism that organised local actors around DMMU-led interventions in a structure linked directly to the Vice President's Office. This has provided a new channel for legitimate central

state intervention in local production and resource governance in Kazungula and Sesheke. Nowhere is this more prominent than in the establishment of the Namapande Resettlement scheme.

9. Organizing People and Production: the Namapande Resettlement Scheme

During and after the floods of 2005–2009 the DMMU led several Vulnerability Assessments to determine the threats and impacts of floods on communities in the affected districts. The assessments recommended a variety of short-term relief responses, but also proposed that “in response to changing climatic factors” (GRZ, 2007, p. 7) state agencies should encourage local communities to diversify crop production and thereby reduce their vulnerability to natural hazards. Significantly, they also recommended that flood-impacted households should be resettled in the highlands, to avoid future flooding disasters – and thus move away from their permanent or seasonal homes, fields and grazing areas (GRZ, 2007, 2008).

This notion had strong political backing in Lusaka, including from the Vice President himself who had visited the area during the floods. The idea of resettlement was also supported by government staff in the local offices of the deconcentrated state agencies in e.g. agriculture and water management, who saw an opportunity to concentrate extension activities in a limited area, and use the scheme as a platform for disseminating adaptive agricultural practices such as crop diversification and conservation agriculture.

As a result, a proposal was put forward through the DMMU to establish a voluntary resettlement scheme for flood-prone households in a sparsely inhabited and little cultivated part of Kazungula district. Importantly, the resettlement scheme was voluntary. A forced scheme would have invoked considerable local protest and attention from the media. Instead, the DMMU and District Commissioner sought to coax flood-prone households to resettle. During public speeches, in local media, and in the district and sub district meetings of the Disaster Management Committees they announced that resettled areas households would be provided with land title deeds, which – it was argued – would provide better tenure security than in the communal lands. Moreover, the central state would assist resettled households in adapting to the changing climate through new techniques and seed variants. A key element in the scheme was an emphasis on sedentary production of new drought-tolerant cash crops, and substituting cattle with goats. Climate change adaptation was thus a main argument used by the DMMU and other government staff in promoting the resettlement scheme. It was also highlighted that those who did not resettle could not rely on central state support in the event of future floods or drought.

While these promises initially satisfied the District Councils, they met with opposition from the chiefly structures. As Ferguson (2013), has pointed out, land in rural Africa has value not only as a productive resource, but also as a symbolic and political asset. The land proposed for the resettlement scheme was little used for productive purposes, but – significantly – it was designated as customary land, and thereby fell under chiefly authority. Handing over land for resettlement would bring it out of chiefly control and transfer it to the statutory regime of private title deeds controlled by the central state. Resistance from the Chiefly structures stalled the scheme for some time, until the Vice President himself stepped in and took direct contact to the Chief in Kazungula district who controlled the land in question. Referring to the central state’s duty to protect its people and emphasizing that the floods were a national disaster, which would occur repeatedly under climate change, he urged the Chief to allocate land for the scheme. Having no real choice, the Chief agreed and an area of approximately 100 km² was allocated and dubbed the Namapande Resettlement Scheme.

Eventually, some 160 households from frequently flooded areas agreed to resettle. They were provided with 5 hectares of land each, leaving most of the area unallocated for potential future resettlement. A school, a clinic and a limited number of boreholes were provided, a land titling process was commenced and the district agricultural offices were enrolled to provide extension support. Funding was drawn from ongoing donor supported government programs in climate adaptation and rural development, and additional minor grants from UN agencies and NGOs. In subsequent

promotion material, the scheme was highlighted as a key example of the DMMU's role in climate change adaptation (GRZ, 2010b). The resettlement area has since become a common stop on the itinerary when dignitaries and consultant's missions visit southern Zambia to plan and evaluate climate change interventions. Similar schemes are being considered for other districts.

10. Adaptation Interventions as Legitimate Resource Control

The Namapande Resettlement Scheme illustrates two key aspects of the central state's approach to climate change adaptation in Kazungula and Sesheke. Firstly, it reflects an extension of past modes whereby changing Zambian governments and their colonial predecessors have sought to intervene in and shape local livelihoods and space. This includes a long history of agricultural (re-)settlement schemes. Introduced originally by the British South Africa Company in the 1920s, settlement schemes have since been employed in a number of sites around the country (Chenoweth, Knowles, & Ngenda, 1995; Sitko & Jayne, 2014; Smith, 2004). The purposes of these schemes have varied, sometimes aimed mainly at rewarding supporters in patronage structures, while at other times serving as a vehicle for modernizing and commercializing smallholder agricultural production. In the latter case, a dominant discourse has been that existing local production methods must be modernised, and that the central state is the legitimate facilitator of this (Sitko & Jayne, 2014).

This rationale is also expressed today by staff in the agricultural departments of the central state, who see existing cultivation practices in southern and western Zambia as an insufficient means of addressing local food security. Seasonal movements of cattle to and from rivers are a particular concern among technical staff in these agencies, who consider such semi-pastoral practices a source of cattle disease and environmental degradation, and a generally impractical and un-governable form of land use. As one district livestock officer put it: "In this day and age, you cannot have livestock moving around like that." As such, the resettlement scheme in Namapande can be seen as an effort by the central state to domesticate and modernise local land use practices, and to organise production, citizens and institutions in forms that are "legible" to and manageable by the state (Scott, 1998).

Secondly, the scheme provides a means for the central state to impose its authority vis-à-vis the chiefly structure. As the land for resettlement is transferred from customary land to titled land deeds, it is transferred from the control of chiefs to the domain of the central state. The resettlement scheme thereby connects directly to the ongoing struggle between the central state and chiefs in Zambia in relation to land control specifically, and local institutional authority more generally. In this struggle, a frequent argument by ruling political elites and – much more discretely – by civil servants in Kazungula and Sesheke is that the land allocation of chiefs is driven by personal rent seeking to the disadvantage of local communities, and that they are therefore illegitimate land managers. The counter argument by chiefs is that they represent the people better and more legitimately than the central state.

In this context, the central state cannot merely impose itself through sheer force. This is where the climate change agenda comes in. Through vulnerability assessments and reference to the urgency and human plight created by the recurring floods and climate change, the central state establishes itself as a land controlling authority on former customary land without losing public legitimacy. A narrative of the central state as guardian of the people is put forward, thereby nominally delivering on the social contract between the central state and citizens – provided that citizens follow its guidance and choose to resettle. Indeed, this can be seen as an attempt at consolidating and shaping the terms of the social contract in the first place: The central state assumes its duty of protecting the citizens, but the expectation in return is that the citizens acknowledge its legitimacy. The Namapande resettlement scheme thereby comes to take on a meaning greater than its modest size, illustrating how climate adaptation interventions offer a means for the central state to legitimise extension of its control over land and production, including over customary land and in remote areas where it otherwise has limited reach.

Other adaptation projects in the two districts exhibit the same features, albeit in more subtle ways. In Sesheke district, for example, the agricultural agency is responding to changing rainfall patterns and

declining maize yields by organizing communities around collective micro-irrigation schemes and introduction of new cash crops. Members of the chiefly structures have however been reluctant to allocate land for some of the schemes, seeing them as an imposition by state agencies on their control of valuable land and water resources. In another example, the Zambia Wildlife Authority and conservation NGOs are seeking to introduce “climate smart” agricultural practices among farmers. While the immediate aim of these activities is to support climate adaptation, they form part of a more overall objective: Through application of so-called conservation agriculture activities, it is hoped that smallholders will abandon extensive farming in favor of more intensive practices. The underlying aim of the project is thus to contain smallholder expansion into uncultivated areas, and thereby secure central state control of important wildlife migration corridors on customary land².

11. Competing Institutional Responses

These developments illustrate, then, how climate adaptation interventions can be seen as part of broader practices of legitimization (Sikor & Lund, 2009) and territorialization (Vandergest & Peluso, 1995) by the central state. However, such interventions do not happen in a vacuum, devoid of response or parallel agency from other institutional actors. In the following, we discuss examples of how chiefs, local governments and local politicians have responded to the adaptation activities of state agencies.

To do this we return to the floods of 2005–2009 and the Namapande resettlement scheme as a case in point. As discussed above, the Chief in Kazungula district eventually agreed – under pressure – to allocate land for the scheme. By contrast, the neighboring Chief in Sesheke district refused outright to have anything to do with it. Instead, he referred to the traditions of the Lozi people, who – both in practice and in the cultural lore of Zambia – are tied closely to fishing, cattle production and seasonal migration to and from the Zambezi floodplains. During meetings with the DMMU, he argued that his subjects knew more than anyone about adapting to floods. He welcomed assistance from state agencies, but not if it interfered with the Lozi way of life.

This forceful resistance drew heavily on the particular role of the chiefly structure of the Lozi people in Zambian politics, known as the Barotse Royal Establishment. Since independence, the former Lozi Kingdom in western Zambia has been the base of a secessionist discourse mediated through the Barotse Royal Establishment, which, although fluctuating, persists as an underlying discursive threat to national unity and cohesion. Imposition of the central state on Lozi chiefs is thus a particularly sensitive issue (Flint, 2003; Zeller, 2015). As a result, the DMMU abandoned the idea of resettlement in Sesheke. The political risks and potential loss of legitimacy was not worth it. This result had wide backing in Lozi communities in the area, who condoned the Chief’s resistance to the scheme and his defense of their land use practices.

A discursive emphasis on tradition is not an option to the local governments of the area, who have turned to other means of asserting their authority through the climate change agenda. After initially backing the Namapande resettlement scheme, the District Council in Kazungula lost interest. The executive staff felt dominated and sidelined by the DMMU, while the elected councilors experienced increasing pressure from their constituencies to address the impacts of floods and drought elsewhere in the district. This led to two overall responses. Firstly, the Council linked climate adaptation to the general debate on devolution in Zambia. During meetings with the District Commissioner, state agencies and donor consultancy teams, the Council argued that as elected devolved bodies they were the best placed authority to identify and address people’s needs in climate change adaptation. They argued that this should be recognised in the devolution process, and that the impacts of climate change amplified the need for decentralization. One outcome of this was that funding from a major World Bank program on climate change adaptation bypassed the DMMU activities in the Namapande Resettlement area, in favor of other sites proposed by the District Council.

Secondly, some councilors and candidates in local government elections have used climate adaptation as a platform for challenging central state control of land and revenues in the area. At public rallies and in meetings with state agencies they have demanded that – because of climate change – the

central government must de-gazette the extensive Forest Reserves in the two districts. This, they argue, will allow communities to overcome floods and droughts by expanding grazing and crop production, and provide alternative incomes through e.g. charcoal production. These calls play into a broader conflict on access to the Forest Reserves. The reserves are State Land and protected areas, and communities are prosecuted for clearing land for crops and charcoal production. Meanwhile, foreign timber companies are licensed to extract hardwood from the reserves, with revenues going directly to the national level and thus bypassing the District Councils. The demands for de-gazetement have gained popular support, and have contributed to the (re-)election of some councilors.

Like the resistance of the Chief in Sesheke to the resettlement scheme, these calls by local government actors thus play into broader political agendas. The issue at stake is partly one of resource control, but also one of manifesting their position as independent actors distinct from state agencies. This is also evident in the activities of other local actors. For example, following the 2006–2007 floods, MPs in the area organised their own independent “Vulnerability Assessment” in direct competition with that of the DMMU. Touring remote parts of the district, they held public meetings and met with local dignitaries to assess impacts of the floods and people’s needs. They subsequently criticised the DMMU assessment for being poorly informed, and called for a more locally anchored “bottom-up” approach to dealing with floods and droughts.

These actions by chiefs, District Councils and MPs reflect how such actors strategically negotiate their relationship to the state. On the one hand, they draw actively on recognised statutory roles, which contribute, to their authority to speak and act in the first place. Yet on the other hand, they exploit available opportunities to portray state agencies and interventions as centralistic constructs from which they themselves are distinct. Their maneuvering, then, should not be seen as a rejection of the idea of the state as such, but rather as an attempt to lay claim to a public authority of their own, and to position themselves in the opaque processes of local state formation in rural Africa (Lund, 2006).

Climate change adaptation provides a useful arena for such efforts. As the above events demonstrate, chiefs, local government and other actors actively engage in the climate discourse and practical activities in an effort to counter state impositions and assert their own authority. This includes (i) undertaking self-initiated state-like functions such as Vulnerability Assessments in direct competition with state agencies, (ii) staking claims to legitimate knowledge, such as indigenous adaptation knowledge, and (iii) claiming to represent the needs of the people through virtues of tradition or democracy. Notions of “the local” feature strongly in these claims, conveying an intimacy with the public and the lived experience of climate change which state agencies cannot claim to the same extent.

12. Conclusion

Our study emphasises that there is more to the politics of climate change in developing countries than global negotiations and donor discourses. It suggests a need to see national governments and rural institutional actors in developing countries as more than passive and disinterested witnesses of “foreign” climate change discourses. Rather than merely being acted-upon, they engage actively in such discourses where and when they consider it relevant.

This should not be taken to mean that adaptation to climate change is now a pivotal issue in national and local politics in developing countries. Rather, our findings from Zambia suggest that climate change adaptation may come to serve as an arena – alongside other arenas – in which broader struggles between the central state and competing institutional actors are played out. These struggles have a material dimension evolving around the control of land and other natural resources, and they have an immaterial dimension evolving around institutional authority and associated legitimizing practices, as evident in the dynamics between state agencies, chiefs, councilors and MPs in our study area.

Should we expect such struggles to play out in the same fashion everywhere? We suggest not. It is part of our point that climate interventions need to be understood in the context of particular political

and institutional settings (McGregor, Eilenberg, & Coutinho, 2015). The climate change agenda may therefore take on a multitude of forms, and is no doubt more articulated and politicised in some settings than others. In our Zambian study area, a series of floods and droughts from the mid-2000s onwards has provided a fertile ground for the emergence of a climate change agenda and associated institutional struggles.

Nevertheless, it would be wrong to see the case of Zambia as an isolated case. Floods and droughts are now commonly associated with climate change in many rural areas in developing countries, and the responses of the Zambian state agencies are not unique. In Mozambique, for example, the central state has also sought to resettle flood prone communities in the name of climate adaptation, with strong underlying interests in hydropower development (Arnall, 2014). In Zimbabwe, the state has responded to a recent major flooding by resettling households to work on a sugar cane scheme with vested government interests (HRW, 2015). In Tanzania, Smucker et al. (2015) found a depoliticizing discourse in the national adaptation plans, and interventions that include efforts to promote irrigation on pastoral lands. Meanwhile, developing research in Vietnam suggests that similar processes can be found there in a very different political context, as a means of reproducing an already strong state on the ground (Lindegaard, 2015).

Climate change adaptation thus affords a convenient means for state agencies to assert themselves and expand control of people and physical resources. From an overall perspective, this can be seen as variant of emerging forms of “climate opportunism” across the globe whereby governments exploit a climate change for strategic purposes (Bonds, 2016). In the particular African context, it can be seen as the latest expression of a historical process whereby colonial and post-colonial states have employed environmental narratives in an attempt to legitimately order people and space (Anderson, 2002; Death, 2016; Leach & Mearns, 1996).

From a normative point of view, this is problematic. It distracts attention from the deeply political nature of adaptation, and paves the way for autocratic rule over people’s livelihoods and resources. If the aim is to allow citizens to adapt effectively to the impacts of climate change, interventions must focus on supporting people’s own agency, needs and knowledges (Agrawal and Perrin, 2009), rather than being driven by strategic political interests such as establishing and reproducing institutional authority.

Significantly, however, state agencies do not necessarily succeed in their efforts, and local actors may seek to exploit, manipulate or counter legitimizing strategies to their own advantage. In our case, this includes efforts by local governments and chiefs to assert their role in climate adaptation as part of broader attempts to establish authority and resource control alongside or in competition with state agencies. This suggests that deterministic conclusions must be avoided. Just as climate change adaptation discourses can serve to legitimise central state impositions, they may also provide an arena for challenging centralised authority and resource control.

From a normative perspective, this emphasises that climate change discourses are not intrinsically linked to top-down interventions, and offers opportunities for supporting climate change adaptation in ways that are more locally driven and pluralistic. In this respect, a key approach must be to “denaturalise” climate change adaptation and openly recognise its deeply political nature (Eguavoen et al., 2015). This includes affording more attention in policies and practice to adaptation as a matter of governance and resource rights, rather than just an urgently needed technical process. While this is a well-known critique in other fields, it remains poorly articulated in the context of climate change adaptation.

We suggest that research can help elucidate this through critical analysis of the politics of climate change adaptation in development. This includes examining the role of global actors but also, as we have suggested here, the ways in which governments and other domestic actors shape adaptation interventions, and how this connects more broadly to resource struggles and processes of state formation.

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Notes

1. In the following, we use the term “state agencies” to describe these central state agencies and their local branches. This is done in the interest of clarity. It does not imply that other actors discussed here – such as local governments or customary authorities – are remote from the state apparatus.
2. See Whitfield et al. (2015) for a broader discussion of conservation agriculture narratives in Zambia.

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