

- ● Adaption und Kreativität in
- ● Afrika – Technologien und Bedeutungen in der
- ● Produktion von Ordnung und Unordnung

Sara de Wit

CHANGING PATTERNS OF RAIN OR POWER?

HOW AN IDEA OF ADAPTATION TO
CLIMATE CHANGE TRAVELS UP AND DOWN
TO A VILLAGE IN SIMANJIRO, MAASAILAND
NORTHERN TANZANIA



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to a village in Simanjiro, Maasailand Northern Tanzania**

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Abstract

Moving beyond objectivist stances that are largely dominating the climate change research agenda and international policy making, this paper explores an alternative ontology of the Adaptation to Climate Change discourse. By tracing a travelling idea about 'Adaptation to Climate Change' (ACC) along a variety of places and multiple encounters the epistemological and political challenges that are entailed by this narrative in the making are laid bare. It focuses on the power dynamics that are revealed by and fostered through the discursive practices that characterize the emergence of this nascent discourse in Tanzania. It is argued that this travelling idea – which is continuously coproduced and reshaped by varying actors in its journey to the 'local' level – brings longstanding tensions to the fore that exist between Maasai agro-pastoralists and the Tanzanian government. Whereas the government portrays the pastoralists in the debate both as victims as well as perpetrators of a changing climate, the grassroots organizations representing the pastoral communities view the Maasai rather as masters of adaptation. It will be shown how the ACC paradigm is wholeheartedly embraced by several actors along its journey until it reaches the rural village of Terrat, where it is by and large rejected. By shining light on these translation practices it is argued that in face of this emerging discourse, adaptation should not solely be seen as a collective human response to (external) changing bio-physical stimuli, but rather as an integrated process that cannot be detached from adaptations to its discursive formations.

Key words: Adaptation to climate change, travelling idea, 'nodal' ethnography, competing knowledge orders, Maasai¹, Northern Tanzania.

1 The term Maasai is by no means a homogeneous or static category as it refers to a large and heterogeneous group of Maa speaking people that have followed distinct historical trajectories and adopted a diverse array of production systems. While the term pastoralist is also diffuse, I will use the terms (agro)pastoralists, herders and Maasai interchangeably throughout the text, at times referring to the group of Maasai in Tanzania at large, or depending on the context, referring to the Maasai from the village of Terrat. For a detailed discussion about postcolonial identity politics I refer to the work of anthropologist Dorothy Hodgson: *Being Maasai, Becoming Indigenous*, 2011.

Introduction

Research related to climate change adaptation in Sub-Saharan Africa has until now largely been guided by objectivist stances in which the bio-physical consequences of climate change, and its impacts upon human populations have been taken as a focal point of analysis (Low 2005; Crate & Nuttal 2009; Adger et al. 2003; Conway et al 2011; Yanda et al. 2011; Downing et al. 1997; IPCC 2007). Broadly speaking, a great deal of studies have thus focused on the questions how people in different socio-ecological systems adapt to climate change, or how they give meaning to these environmental changes (Roncoli et al. 2003; Cruikshank 2001). Only recently some scholars have challenged whether these adaptations to climate change in the Global South can be addressed without taking other vectors of social change into account, like exposure to climate change discourses (Rudiak-Gould 2011, 2012, 2013a, 2013b, 2013c), shifting power ideologies and discursive formations (Sheridan 2012; Arnall et al. 2014), or landscape and institutional changes (Goldman & Riosmena 2013). Yet, very little concern has been expressed for a critical assessment of the power dynamics within which the social construction of (adaptation to) climate change takes place in concrete places (Pettenger 2007; for notable exceptions see: Weisser et al. 2014; Eguavoen et al. 2013). This void in the research agenda becomes all the more striking if we take into consideration the widespread ‘apocalyptic’ appeal in climate change adaptation discourses pertaining particularly to Africa and the small island states that increasingly shape the ‘climate landscapes’ on the ground (cf. Farbotko & Lazrus 2012; Smucker et al. 2015). Departing from objectivist stances that are currently dominating the climate change research agenda and international politics, this paper proposes an alternative ontology of adaptation by exploring it as a travelling idea (cf. Weisser et al. 2014; Hulme 2008; de Wit 2011).

In 2001 adaptation became officially recognized as a key principle of the international climate change policy at the United Nations Framework Convention Climate Change (UNFCCC). Since its inception it has become one of the essential pillars for intervention in the Global South in the fight against climate change. Meanwhile the idea has mobilized an array of (inter)national and local actors, funds, and institutional reforms, to the extent that adaptation has become one of the major contemporary development issues (Tanner and Allouche 2011, in: Arnall et al. 2014). It can thus be said that this idea is currently ‘travelling’ to the Global South with pronounced force. The assumption that Africa is very likely to be at the dawn of facing an intense reshaping of how people (should) relate and adapt to a rapidly changing climate forms one of the most salient elements of this discourse. The adaptation paradigm is conveyed as a ‘new prophecy’ for the Global South, as it is strongly impregnated with the idea that adaptation to climate change is the *sine qua non* for survival. Within the current research agenda a tendency can be observed that envisions adaptation to climate change as a highly technical response to biophysical conditions, for which a toolbox of programmatic and ‘cookie-cutter’ solutions is needed that enables people to adapt in thoroughly planned and predictive ways to future climates.

This widespread assumption that underpin such approaches is a testimony to the influence and dominance of the natural sciences in climate change research – which has rightfully been criticized by Mike Hulme to be a form of climate determinism and reductionism (Hulme 2011a). This technocratic, model-based discourse with a ‘God’s eye’ on the climate finds expression in the way the Adaptation to Climate Change (ACC) paradigm currently is manifested both in international politics and in social sciences – at the expense of more contingent, interpretative and imaginative accounts of social life (Hulme 2009, 2010, 2011b; Crane et al. 2011; Rudiak-Gould 2011; Strauss & Orlove 2003). Without discarding the relevance and importance of developing

predictive instruments and forecasting models, it will be argued here that isolating ‘Nature’ from ‘Culture’ – being an inherent assumption of deterministic thinking – fails to understand (1) the socio-cultural embedded practices through which adaptation is locally valued and enacted; (2) as well as the political struggles that are enticed by the travelling ACC paradigm.

Moving beyond existing approaches that understand climate change adaptation solely as technocratic and ‘rational’ solutions that occur in reaction to bio-physical stimuli, this paper explores alternative perspectives in which contested orders of knowledge production, confusing ontological encounters, and political struggles take center stage that are entailed by the travelling idea of adaptation to climate change. Due to this ‘planetary emergence’ powerful actors in both the Global North and South are mobilized and assemble around this threat, who all assume to be indispensable in tackling this global problem. Hence, this paper takes as a basic premise that in this increasingly interconnected and mediated world people do not solely adapt to a changing climate, but first and foremost adapt to a changing discourse about the climate (cf. Gebauer & Doevenspeck 2014).

The following analysis will focus on how an internationally constructed discourse on climate change adaptation finds its way through different ‘translation zones’ (Apter 2006) in Tanzania; on how it takes off, sets foot again and along its itinerary is appropriated, embraced, accepted, reinvigorated, and at times also refuted. By analysing the translation chain the aim is to understand how these discursive practices possibly lead to a (re)production, or change of power hierarchies, and shape the policy prescriptions that emanate from them. A discourse, referring to the intertwining of knowledge and power (Foucault 1980) is here basically understood as the way we understand and talk about the world. Moreover, in this paper I employ a political ecology lens that traces the genealogy of narratives concerning the environment and the power relationships that are supported by them (Stott and Sullivan 2000, 2), which enables us to explore the ‘multi-level connection between global and local phenomena’ (Adger et al. 2001, 682).

This ontological shift from viewing adaptation as a reaction to a bio-physical process, to adaptation as (and to) a ‘travelling idea’, similarly calls for an epistemological turn in the climate change research agenda. Henceforth, this paper wishes to contribute to developing theoretical and methodological tools that show the power-laden processes of translating adaptation. It will do so by arguing for an ethnography of connectivity (see below), combined with a detailed ethnographic account of the ‘local’ context where the global idea ultimately is supposed to be implemented. Central questions to be addressed in this paper are: how is adaptation to climate change translated and negotiated in Tanzania, and what are the consequences for different social groups? Who can benefit from these emerging discourses and who cannot? What makes the ACC idea travel, or in the case of Maasailand, what are the conditions under which the idea does not travel or is by and large rejected? How do different ‘truth regimes’ fuse in their encounter? And, who holds power in translations of the epistemics of climate change and who does not?

Methodological reflections on how to trace a travelling idea

Vital for an ethnography of a travelling idea is to follow its trajectories along multiple sites. Yet, as is the case with most fashions and ideas that get replicated or imitated too frequently, over time they lose their appeal (Tarde 1890/1962, 210 in: Czarniawska 2005, 10), and moreover, they increasingly become beset with vagueness. This seems to be the current fate of the widely applied ‘multi-sited ethnography’ (Marcus 1995). Hence, a few methodological reflections and tangible steps that were necessary in following the idea’s trajectories are in need of sharing. First, the term ‘multi-sitedness’ is somewhat misleading here for it carries the notion that it is about clearly discernable geographical sites. Therefore, it seems that the term ‘nodal ethnography’ does more justice to my research ‘design’ (Hodgson 2011, 17), for I have focused on places and interactions where different ‘worlds’ meet. Whereas the basic principles are the same – that is “to follow” – the ‘nodal’ concept explicitly denotes being an ethnography of connectivity that illuminates how ties are established, and how encounters take place between multiple sites (cf. de Bruijn et al. 2012).

Secondly, a few notes on the direction of the travelling idea are worth sharing. Ideas travel up and down all the time and in order to follow the varied and multiple trajectories of adaptation one has to be continuously on the move. While analytically it is perhaps possible to identify the idea’s point of departure and intended direction, it might be superfluous to say that a researcher can never follow an idea’s full trajectory. Yet, besides a methodological condition ‘in motion’, the notion of a travelling idea is perhaps even more essential as an analytic concept that enables us to understand how processes of change in one place bring about, or are related to change in other places (cf. Behrends et al. 2014). This approach allows us to understand the travelling idea of ACC not as a unidirectional journey from the ‘global’ to the ‘local’ or from North to South, but rather as the fruit of a continuous coproduction – a narrative in the making – between highly-interdependent and multiple constituencies.

This brings me to third point that deserves methodological reflection: ideas themselves do not travel. They need to be transported and translated by goods or people, as Czarniawska and Sévon have put it: “ideas must materialize, at least in somebody’s head; symbols must be inscribed” (Czarniawska & Sévon 2005, 9). Thus in the fairly abstract pursuit of following a travelling idea one discovers that this is only possible by following their very tangible and material manifestations, hence the carriers and translators of ideas – be it “development brokers” (Bierschenk et al. 2002; Mosse and Lewis 2006), “transnational agents” (Acharya 2004), “translators” (Merry 2006), or “mediators” (Behrends et al. 2014) – have been at the heart of my ethnographic trajectory. By navigating between and bridging different worlds (i.e. donor and beneficiary) these mediators and their translation practices form a vital role in the translation chain (Rottenburg 2009), for they need to appropriate or ‘make ideas their own’. More concretely, I followed ‘mobile’ epistemic communities to negotiation sites where adaptation discourses are debated and given further impetus into policy documents. Part of the methodology involved attending international and regional expert meetings, climate change conferences; national public hearings and policy workshops, local sensitization meetings etc. It is during these moments of encounter where friction (Tsing 2005) occurs, and practices of struggle are silenced or played out before they temporarily congeal, gain hegemonic momentum and travel further to live life anew.

Yet, while getting there (Clifford 1997) formed a vital part of my analytical gaze, within this research I have similarly attempted to be faithful to committed localism (Marcus 1995). Cherishing anthropology's longstanding tradition and most vital theoretical tenet of capturing the intricacies of daily life in a Maasai village, by 'simply' being there (Clifford 1997, 99; Roncoli et al. 2003). So I walked, for many hours and many days, with the herders and their herds – trying to understand 'what the hell' adaptation is about. There, I found myself – to a surprising degree – making sense of the absence of what I initially was looking for. It turned out that the ACC paradigm is wholeheartedly embraced and appropriated by several actors along the 'translation chain' until it reaches the rural village of Terrat, where it is by and large rejected. Navigating between sophisticated air-conditioned venues (where the threat of climate change is 'talked into existence'), and the mud-hut in which I resided in the drought-prone Simanjiro plains (where there is no widespread language yet to access this reality), enabled me to gain insight into the 'incompatible ontologies', discursive formations and diverging interests between what is drafted globally and experienced locally.

Translating adaptation

Much can be said about the comprehensive concept of translation for it has played an equivocal role within the history of anthropology, linguistics and philosophy, and it has reoccurred in a variety of shapes in the wake of the 'ontological turn' (Hanks & Severi 2014) and with the development of science and technology studies. Therefore, for the sake of this paper I will limit myself to two specific forms of translation that will briefly be contextualized in this paragraph. As political geographer Andrew Barry (2013) reminds us, translation has always been a literary as well as a political and geographical process. According to Barry, all these translations should be kept in mind if we want to understand the relation between actor-network theory and international relations. The author emphasizes that this recognition is important because it corrects an erroneous assumption of early formulations of actor-network theory, namely that the hybrid actor-networked world was understood as a world without boundaries or structural inequalities in resources in which all translations were in principle possible (Barry 2013, 4). Yet the world of international relations is marked by contestations, 'enduring blockages' and ambiguous translations. He therefore directs our attention to the politicised borders of translation, untranslatability and to the possibility of resistance of translation (ibid). He does so by making use of the notion of a space that literary theorist Emily Apter (2006) has termed a 'translation zone', where 'transmission failure is marked, and where not all translations are easy or possible' (Apter 2006; in Barry 2013, 4). By making use of the metaphor of international conflict and language wars in the aftermath of 9/11, with the term translation zone Apter envisaged 'a broad intellectual topography that is neither the property of a single nation, nor an amorphous condition associated with postnationalism, but rather a zone of critical engagement that connects the "l" and the "n" of transLation and transNation' (Apter 2006, 5).

In line with Barry and Apter, it will be illustrated in the following paragraph that one way of gaining insight into the translation practices which make ideas travel, is to focus on those contested spaces where translation turns out to be a challenging and problematic undertaking. Perhaps of little surprise to anthropologists, but the author furthermore insists that actor-network theory is not a theory that can be applied unmodified to international relations, nor

should empirical cases be merely used as a way to underpin ANT's theoretical relevance. He argues instead that international relations should generate problems and challenge the application of actor-network theory, and that the latter should be adjusted and reconfigured according to empirical situations. In this context and relevant to this paper, Barry points out that ANT poses a critical problem to the field of international relations, which is to attend to the ways in which specific claims to scientific knowledge acquire meaning and attain remarkable political salience. Thus the task is not just recognizing the importance of epistemic communities that produce scientific knowledge and the institutional forms within which it becomes enmeshed, but the content of the claims deserves particular attention (Barry 2013, 5). Conversely, it is argued that international relations also poses challenges to actor-network theory, and I deem particularly important here the role of history (*ibid*); for the current translation of the ACC paradigm can only be understood in its full complexity if we recognize the ways in which it builds upon older truth claims.

In the following analysis the notion of translation will be advanced in two ways. Firstly, as a general operation, a way of exercising power (Callon & Latour 1981) that always entails transformation of the translator and of that what is translated (see Serres 1982 in: Czarniawska & Sévon 2005, 7). And since there is no such thing as a perfect translation, it is a process that inevitably invites imitation and differentiation at the same time, an observation that lies at the heart of actor-network theory (*cf.* Barry 2013, 3). As Callon and Latour proposed, 'By translation we understand all the negotiations, intrigues, calculations, acts of persuasion and violence, thanks to which an actor or force takes, or causes to be conferred on itself, authority to speak or act on behalf of another act or force' (Callon & Latour 1981, 279). The next paragraph is concerned with the inherent challenges of translation, and explores the reasons for the perseverance of a specific 'truth claim', and for the possibilities of why it acquired such political salience. The final paragraph will deal with the second notion of translation that will be advanced here, and concerns linguistic translation. This will be employed in order to illustrate the eternal translator's dilemma and its ontological politics that is part of every translation operation, namely the offset between fidelity to the original text on the one hand and the transparency of meaning on the other.

In the following analysis, which is grounded upon fourteen months of fieldwork², ethnographic accounts of adaptation 'horizons' and practices from the village of Terrat (Simanjoro district, Northern Tanzania, see figure 1) are juxtaposed with observations of encounters between government officials, policymakers, CSOs, scientists, and village representatives. I will take the reader on a journey through the eyes of herder Leboi, starting from a public hearing in Dar es Salaam, where I will unravel and contextualize the different layers of competing knowledge orders, before finally tracing the translation of the idea of climate change adaptation to the village of Terrat.

2 Two fieldwork periods have been carried out between October 2011 and January 2012; and August 2012 and July 2013.

Fragments from a public hearing



Two Maasai herders from Terrat attending a public hearing in Dar es Salaam, November 2011. Traditional leader Lesira Ole Samburi (left) and Leboi Ole Ngoira (right).

Pictures taken by author.

It was an extraordinary rainy day when approximately one hundred people, including the national and international press, from all over Tanzania and abroad found their way to the UNDP building in Dar es Salaam to talk about climate change. By unpacking the following encounters between the government of Tanzania, two Maasai herdsmen and an NGO representative, I will show how the travelling idea of ACC entangles different lifeworlds and is continuously shaped by its borderless discursive journey³. Leboi Ole Ngoira and traditional leader Lesira Ole Samburi, two Maasai pastoralists from Simanjiro were summoned to this high-profile meeting as one of the climate change witnesses, which enabled them to visit Dar es Salaam for the first time in their life. Yet, the idea of climate change was not new to them. Namely, what we see on the picture is that these two herders are staring at a picture of themselves; a situation that comprises an interesting layer of encounters and travelling ideas that deserve a brief contextualization. Prior to their journey to Dar es Salaam, an NGO had already travelled to Terrat to inform these two men about what climate change is all about. Consequently, the herdsmen were asked to explain to the international community how climate change has been negatively affecting their lives. This is not to say that the herdsman's explanation about climate change is less valid, but rather to show how NGOs actively shape the worldviews, perceptions or epistemological frames of the people they want to engage with.

This picture was taken during the public hearing that was organized by Tanzania's civil society⁴. It was held in preparation of the upcoming international climate change conference (the UNFCCC, COP17) that would take place ten days later in Durban. The aim of this meeting

3 The following account should not be considered as an ethnographic 'evidence' in the traditional sense of the word, but this event should be understood as an entry for storytelling, and for reflecting upon a comprehensive set of entangled issues that came to the fore during this meeting (cf. Ferguson 2006, 168). I chose this way of storytelling because this encounter between different stakeholders at this particular conference forms largely a solid representation of the contours of different positions in the debate.

4 Climate Change Hearings II: Have you heard us? November 18th 2011, UNDP, Dar es Salaam. Organized by Tanzania National Resource Forum (TNRF) and ForumCC. The event received considerable media attention as it was covered in at least three newspapers, and was also broadcasted on national TV. See link to the program: www.youtube.com/watch?v=EYsA70EV-4U&feature=player_embedded#.

was to “provide a space for Tanzanian citizens to share their experiences and concerns about a changing climate (..)”. In addition to the engagement of several stakeholders that represented the international community and the national and regional government of Tanzania, this platform was intended to give room for ordinary Tanzanian citizens to share their ‘climate testimonies’, and to learn from experts. The floor was given to fishermen from the coastal zones; farmers from the mountainous areas of Moshi and Kilimanjaro; a seaweed farmer from Zanzibar, and subsistence farmers from Pemba, Kigoma and other parts of Tanzania. Among the testifiers was also Maasai pastoralist Leboi from Terrat – the rural village in Northern Tanzania where I carried out the largest part of my fieldwork. He gave the final testimony about how climate change impacts the livelihood security in his village.

Leboi

“My name is Leboi Ole Ngoira from Simanjiro district. I come from Terrat village. When we used to talk with our fellows in the village about climate change we realized that it started to occur in 1987, when drought hit the zone of Simanjiro. We are pastoralists, we tried to cultivate but we failed due to the climate change, then variation in season and no rainfall. (..) So we tried to cultivate but a few of us got maize, we tried more but we did not succeed (..) and we realized that we are in an area that does not support agriculture. So we decided to continue livestock keeping (...)”

According to Leboi, 1987 marked the beginning of the ‘arrival’ of climate change, for it was a period of severe drought, which hindered the first attempts of the pastoralists to raise crops. The link appears to be made that due to the drought, the cultivation of crops was needed in order to complement their common practices of cattle herding, and to diversify their livelihood strategies. While speaking about the changing rainfall patterns, Leboi also talked about the increasing population pressure and the complicated relation that existed between keeping livestock on the one hand and cultivating crops on the other. According to Terrence McCabe (2003): “The adoption of cultivation by pastoral Maasai living in Northern Tanzania was the first and most significant step in the process of livelihood diversification that is continuing today” (McCabe 2003, 100). Moreover, he states that “ (..) this attempt to craft new sustainable livelihoods was in response to increasing population pressure, a fluctuating livestock population, reductions in grazing areas, and modernization that places an increased emphasis on a monetary economy” (ibid).

Put differently, the changes in rainfall patterns that Leboi was talking about form part of a broad and complex picture that can similarly be characterized as a time of rapid social, economic and ecological change, which are here synthesized and given meaning through a ‘climate change lens’. Population pressure, and irregularity of rainfall as expressed in Leboi’s statement, being among the factors that can be brought in relation with the increasing stress on grazing areas and the decreasing availability of water. Yet, the importance of rainfall and access to water sources for the survival of the pastoralists’ cattle was repeatedly emphasized in his further talk by mentioning the persistent lack of rainfall as the primary reason for change. Nevertheless, his statement deserves a broader historical understanding of political processes

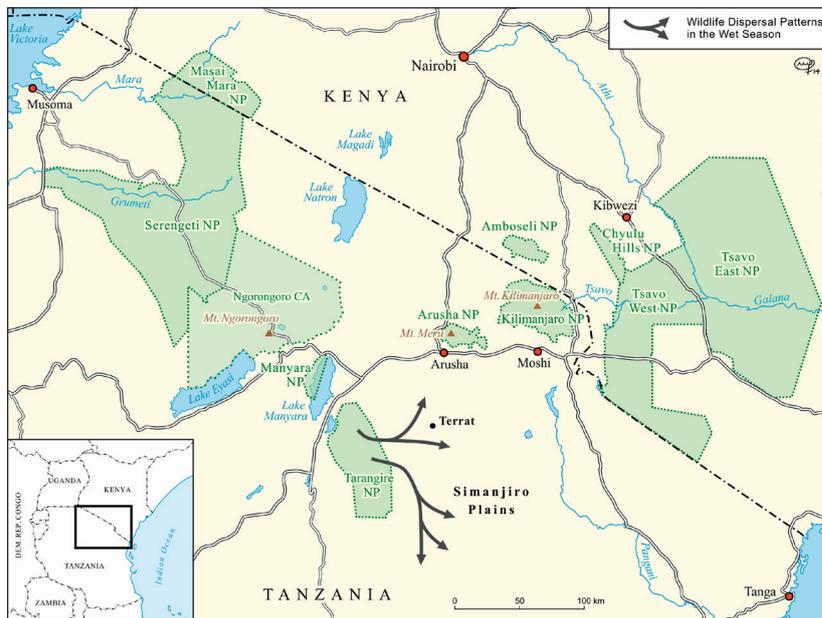


Figure 1.
Wildlife dispersal in
the wet season.

Cartography:
Monika Feinen,
University of Cologne.

that have shaped the socio-cultural and environmental landscape of which the Maasai pastoralists form part. He and his village members are not sure yet what causes this situation:

“Looking at history you say that the destruction of the environment causes this situation, but we are trying to find out how the destruction of the environment has caused it. It cannot be demonstrated clearly! (..) We are trying to protect our environment so that it can rain, because we don’t know either if it is the destruction of the environment itself or is it because of lack of rainfall. We don’t know yet! We are trying more and more, but we fail. In recent years you can find there is no rainfall even for five years continuously. Nowadays there are some important pastures disappearing because of lack of rainfall.

In this fragment, we are left with the impression that the emphasis is placed on showing that the pastoralists are trying to protect the environment, and not destruct it. He appears to find the idea that the source of change lies in the destruction of the environment itself rather odd, and instead seeks it in a natural (or non-anthropogenic) cause, namely: rain. One of the possible reasons why Leboi feels the need to portray his way of living as non-destructive for the environment, might be due to the longstanding and predominant view that has perceived the pastoral mode of living as “irrational”. Over time this idea has provided a theoretical foundation for rangeland management systems that advocated either the reduction of livestock numbers, total abandonment of pastoralism, raising livestock in sedentary settings, commercial ranging or the privatization of rangeland resources (McCabe 2003; Igoe 2002; Sachedina 2008). It can be said that Maasai pastoralists like Leboi have been subjected to a wide variety of changing paradigms and political processes, generally motivated by Western conceptions of pastoral inefficiency, but scientific considerations on grazing capacity are perpetuated by the Tanzanian government (Sachedina 2008; cf. Bollig & de Wit 2014). This continued to have a considerable influence on the patterns and trajectories of their modes of living, which – as we shall see below – continue to persist until today.

Producing nature – how earlier green paradigms travelled to Northern Tanzania

Then something unexpected happened and Leboi seized the opportunity to ask the honourable member of parliament a question of a different nature:

“What is another issue? Let me ask the people from the government something: why is it that the animals from wildlife, I mean from Tarangire [National Park], they come and eat our grass, but our cattle is not allowed to go to Tarangire to eat their grass there?”

The question stems from disagreements over productive modes of livestock keeping, and touches upon another crucial and sensitive issue, namely the conservation of nature (including wildlife) versus development. It is worth to contextualize this particular area in which Terrat is located, as it forms part of the vast plains of Northern Tanzania that have a long history of being managed under some sort of conservation management.

The Tanzanian government’s attempt to relocate pastoralists and ‘promote’ agriculture and the sedentary life style, dates back to the days of British colonial rule (Hodgson 2011). And, even though envisioning a different aim, this was later repeated in the 1960s when the first president Julius Nyerere installed an African version of socialism. With a nationwide villagisation program people were forcefully relocated into so-called Ujamaa (Swahili: family hood) villages. In Northern Tanzania this resettlement was known as Operation Embarnat (Maa: permanent settlement), and many Maasai herders saw this operation as another attempt by the state to appropriate pastoral rangelands. In other words, conservation was thus not the only force behind state led resettlement (Sachedina 2008, 110).

This larger region that is internationally renowned for its ‘natural wonders’ and scenic beauty like the Serengeti plains and the Ngorongoro crater forms part of a longstanding institutional legacy of the creation of national parks. What is important to bear in mind, is that this region has a particular history of being subjected to globally constructed ideas of what nature is, and how humans can “fit” – or rather not fit – this (idea of) nature in order to conserve the world’s remaining wild places and the wildlife that live in them. One such place that is based on the ideology of the separation of ‘Nature’ and ‘Culture’ is the Tarangire National park (see figure 1 below).

The village of Terrat (6000 inhabitants) is located in the northwestern outskirts of Tarangire National Park, which became a game reserve in 1957 and was ‘upgraded’ as a national park in 1970. The gazettement of Tarangire as a national park remains a painful memory for people who were evicted (Igoe and Brockington 1999, in: Sachedina 2008, 110). For the Maasai of Simanjiro the area that is now Tarangire was central to their system of trans-humant pastoralism, since the most important and reliable dry-season water point in the entire ecosystem, the Tarangire river, is located inside the park. Moreover, the park contains the so-called Silalo Swamp that was the primary drought reserve area for the herders of the Simanjiro/Tarangire ecosystem, and a number of seasonal water resources. Local herders have claimed that the national park has disrupted their traditional herding systems, and played an important part in the decline of Simanjiro’s pastoral economy (Igoe 2002, 80–82). Against this background, it is therefore not surprising that herders like Leboi, whose parents used to dwell in this area and traditionally

followed the same migratory routes as the wildlife, complain about the increasing lack of water and of green pastures for his cattle.

Thus even though the borders of the national park are from the outside strictly closed for both pastoralists and their cattle, conversely during the rainy season the wildlife disperses into the wider area. Due to the central location of Terrat amidst one of the important migratory routes of the wild ungulates, at the onset of the dry season when the wildlife returns to the park the cattle are often left with insufficient grasses to survive the dry season. The majority of people I spoke with in Terrat complained about the lack of land and pasture. This is aggravated by the fact that wildebeest give birth in this area (Terrat is nicknamed by the people as “birth clinic”), which makes the land inaccessible for cows as the grass becomes poisonous for them, leading to blindness and to their death⁵.

Retrofitting scientific truth claims

Let us now turn back to the public hearing and look at the government’s response in reaction to Leboi’s final question. The commentary came from Joseph⁶, who is one of the leading negotiators in the international climate change negotiations, representing The United Republic of Tanzania:

“(...) I can say that the pastoralists society, who depend on livestock for their livelihood, they can be affected more than those who depend on cultivation. Like I said, due to the current condition we should have a collective desire for change. These people may not change without educating them. These trainings are so important to them, they should get the education so that they can do the productive livestock keeping. Keeping the livestock depending on the availability of pastures. I don’t think that these people could move from one place to another if they could have been given education.”

The ubiquitous view about the Maasai in Tanzania is that with their large herds they exceed the carrying capacity of their lands. The term “carrying capacity” has become the governments’ mantra, to the extent that it almost coincides with what it means to be Maasai. This concept feeds into the highly controversial and longstanding discussion about equilibrium vis-à-vis non-equilibrium ecosystems that is beyond the scope of this paper. What is important here though, is that the term carrying capacity has been prone to ideological hijacking, both to advocate for as well as against pastoralism as a non-sustainable livelihood system. For a long time this scientific claim has been used to reduce herd sizes at the expense of pastoralists’ wellbeing. In a similar vein, the rejection that rangelands have a carrying capacity served to legitimize pastoralism by arguing that environmental destruction cannot be caused by a maximization of herd sizes (cf. Vetter 2005).

Even though the focus of this paper is not to argue whether Terrat form part of an ‘equilibrium’ or ‘nonequilibrium’ ecosystem, it is worth to mention that according to a currently widely

5 Wildebeest transmit the malignant catarrhal fever (MCF), which causes blindness and is fatal to the cattle.

6 The name of the informants presented in this paper may or may not have been changed.

accepted view among ecologists, semi-arid rangelands like the Simanjiro plains are “nonequilibrium ecosystems”, meaning that precipitation patterns are highly variable and droughts frequent. This entails that external factors – e.g. variability in the precipitation patterns, not herbivore numbers – exert a strong influence on the structure and condition of the rangelands (McCabe 2003, 102; Sullivan 2002, 1595). Moreover, this means that a pronounced climate variability with unpredictable rain patterns is thus inherent to this ecosystem rather than something new. Nevertheless, there are studies that point towards more complex explanations and state that arid and semi-arid environments encompass both elements of equilibrium and non-equilibrium ecosystems as they are extremes along a continuum (Vetter 2005). But the question remains why then, is the scientific notion of the carrying capacity so perseverant amongst the Tanzanian government? To find the answer we have to trace the historical roots of this paradigm⁷.

Already in the 20th century it was assumed that pastoral people had an “irrational” attachment to their livestock, and that the livestock numbers were maximized regardless of the carrying capacity of the rangelands (Herskovits 1926). Also Hardin’s article on “The Tragedy of the Commons” was grounded in the assumption that traditional pastoral systems were fundamentally non-sustainable (Hardin 1968). This similarly continued to shape rangeland development policies that advocated the reduction of livestock, and moreover, the privatization of rangeland resources (McCabe 2003). It requires little effort to see the existing parallels between former narratives and misconceptions about human-nature interaction, and the statement above that was expressed by the head negotiator of the national climate change agenda. It is not something new that governments, generally, see the pastoralists’ way of life as backwards and incompatible with administrative goals such as tax collection, provision of health and education services, economic development and the promotion of national unity (Homewood & Rodgers 2004, 3; Hodgson 2011). What is new in this context however, is a revitalization of these scientific paradigms alongside the travelling ACC paradigm. Joseph continued to give Leboi a public reprimand, which silenced him for the rest of the meeting:

“(..) So when you migrate, the place where you went for must have constraints, because it is the place that is not familiar. Not only at the societal level, but also with the environmental issue. You can see then it comes to the point that the pastoralists who depend on livestock keep entering the national parks. (..) They should realize that there is no other way for the society to survive, except by accepting the experts from the private sector and the government’s effort.”

Joseph’s statement does not stand alone in Tanzania. It resonates with the National Adaptation Programme of Action (NAPA), which is the principle document for guiding adaptation in the country. The proposed solutions for the pastoralists include: the change of land use patterns, education of farmers and livestock keepers, sustainable range management, control the movement of livestock and advocate zero grazing (NAPA 2007, 22). Two things in this document deserve critical scrutiny. First, it is again stated that “the existing number of cattle in Tanzania has already surpassed the normal carrying capacity in most areas” (p. 7). And secondly, it is also expected that the pastoralists are among the most vulnerable groups in the country that will suffer from the consequences of climate change. Within the adaptation discourse the Maasai are thus on the

7 For an interesting discussion on climate change and the challenge of non-equilibrium thinking, see: Ian Scoones 2009.

one hand portrayed as perpetrators (in public and media discourse the irrationality argument is nowadays augmented with the notion that cattle emit excessive amounts of CO₂), and on the other hand as victims of climate change (cf. Smucker et al. 2015). Both statements are rooted in the assumption that the Maasai are backward, in need of education and have low adaptive capacities; a tendency that turns the pastoralists in a double sense into the environmental ‘other’.

NGOs strike back: the emergence of a counternarrative

It is against the background of this nascent climate change narrative, that we have to understand the counternarrative that recently came to dominate the NGO vocabulary (mainly organizations that represent the pastoralists) in Northern Tanzania. The last speaker, mediating between different worlds – as a development expert and as a representative of the Maasai community – intervened and turned the argument around by stating that it is not the herdsmen, but the people from the government who need to be educated instead:

“I suggest that there is a need for the peacemaker to identify, learn the whole science. The big strategy of the pastoralists is that, if it did not rain, Mr. Leboi should shift from the plain to another area. (...) And, if you said that Mr. Leboi should not move to another area, we did not even look at why he decided to move (...). The truth is that the government exchanged the area which was used by Mr. Leboi for livestock keeping to be a national park. So his land has been taken. And because there is a big knowledge gap among the dynamics of these drylands, promises that are made are not being very helpful for common citizens like Mr. Leboi. The tendency is that they were encouraged to do agriculture. They were encouraged to cultivate; and now the politics is to do agriculture in a dryland? It is a big problem within a dryland, we don’t do that within a dryland! The best use of those drylands is pastoralism, but livestock did not count in Tanzania for a large number of livestock is considered to be a sin!”

This statement is in line with the manifold accounts about agricultural practices in Terrat, that by most informants were characterized as random trial and error. For example, one pastoralist told me that: “farming is some sort of gambling game, sometimes you win but more often you loose”. Recently, among the NGOs and CSOs in Northern Tanzania a counternarrative has set forth the idea that the Maasai are not victims of climate change, but rather masters of adaptation. To put it in the words of an NGO worker: “We are used to adaptation since we can remember, movement is our way of life”. Since time immemorial they followed the rain and green pastures with their herds, which has always enabled them to adapt to the highly variable and unstable climates. In fact, they argue, pastoralism is a livelihood system that should be understood in its full complexity, within which livelihood diversification like crop production and wage labour (cf. Leslie & McCabe 2013), but also mobility and a large herd size are the key coping mechanism for cattle to survive during severe droughts (cf. Goldman & Riosmena 2013). Thus the adaptation measures as envisioned by the government (reduction of herd sizes, zero grazing, and a sedentary lifestyle only centered on growing crops) are for the Maasai rather the antithesis of adaptation.

The ‘common nonsense’ of climate change: On refuting the climate in Terrat and its ‘ontological politics’⁸

Leboi’s ‘performance’ during the public hearing made him a popular and frequently asked public figure, leading him to act in several educational movies and to take part in other NGO promotional activities. He became a sort of climate change ambassador; a role that he greatly seemed to enjoy as it enabled him to travel to different localities. I believe that he partly owed his remarkable eloquence to his experience as an ‘actor’, for which he needed to reiterate his testimony about changes in rainfall patterns a dozen of times. Yet, contrary to Leboi’s cognition and his playful reception of the climate change’s ‘metacode’ (Rottenburg 2005), I spoke with many villagers who had never heard about climate change or global warming before, and others who had come to know about it through the radio⁹ or via NGOs, and again others who were cognizant but to whom it remained a fairly unintelligible phenomenon. For many villagers in Terrat climate change was explained as a form of global change, a container notion within which the manifold changes that have been entailed by modernity and globalization are subsumed (see for a comparison with the Marshall islands: Rudiak-Gould 2013). These tales about environmental degradation were generally related to a loss of morals and values that once were so vital to holding Maasai society together. According to anthropologist Wouter van Beek, a glorification of the past, myths and legends about yesterday’s world convey a message of degradation, of entropy, of a diminished existence that is closely related to a vision on dwindling resources: “less game, less rain, less trees, less fertility, less wisdom, less power” (van Beek 2000, 38–39).

Talking about the climate can thus be seen as a commentary upon society’s past, present and projected future, a fertile ground for cultural stories to make sense of our place in this world (cf. de Wit 2011). It appeared to be difficult for most informants to detach changes in the weather and the climate from more general societal changes. This is nicely captured by the expression of an old lady: “Perhaps the weather has changed, but we have changed too. We used to follow the clouds, nowadays we have settled”. In other words, for the Maasai in Terrat the climate and the weather are not perceived to be something external to them, but are rather part and parcel of an integral weave of the world that binds society together. As also became clear from other accounts from the Maasai herders from Terrat, the weather and the climate cannot be detached from themselves, their way of life, and what they believe in. There is a strong moral bond between the weather and society. If they had suffered from a bad year without rainfall, they explained that something must be wrong in the moral conduct of the community, that needs to repent its sins by showing good behavior. The climate serves as a mirror between

8 These terms are borrowed from Pedersen 2012; Holbraad *et al.* 2013, and refers to their understanding of “alterity” as being one of the trademarks of the “ontological turn” in anthropology. They state that: “The anthropology of ontology is anthropology *as* ontology; not the comparison of ontologies, but comparison *as* ontology” (Pedersen, Holbraad & Viveiros de Castro, 2013). See: <http://culanth.org/fieldsights/462-the-politics-of-ontology-anthropological-positions>.

9 The only radiostation in Tanzania that broadcasts programs in the Maa language (in addition to Swahili) is “Orkonerei” radio service, and is located in Terrat. One of the weekly programs is fully dedicated to discuss environmental issues.

God and His people, a way to mediate morality and communicate both gratification as well as discontent. Rain is received as a blessing and drought as its cursing counterpart. This intrinsic transcendental connection is also revealed by the most significant word in the Maa language: Engai, which concurrently means God, rain and the sky¹⁰ (de Wit 2014).

Pastoralists Leboi and traditional ruler Lesira were thus among the few who could elaborate in more detail on what (anthropogenic) climate change is about. Nevertheless, after spending some months in Terrat, Leboi's climate change account took a remarkable turn as he suddenly 'dropped' the metacode. Namely, he revealed to me that he in fact does not 'believe' in climate change himself:

"Because we are aware that these changes are coming from God, and nobody knows the secret of God. And in our locality the climate knows a lot of fluctuations. One year you might expect rain and there will be no rain, in another year you expect drought but there is enough rainfall. And because of these fluctuations nobody knows the secret of God. And that is why also we cannot trust these men who are telling us about climate change".

Apart from Leboi, many of my informants demonstrated a great suspicion towards those people from Europe and America, who call themselves scientists and tell over the radio that they know how to predict rain. In the encounter between climate change discourses and the villagers of Terrat, a confusing 'ontological incompatibility' with the religious Maasai explanatory regime of the world (which is predominantly, but not exclusively, Christian) seems to occur. Around the 1990s a large conversion to Christianity took place in Maasailand, mainly among Maasai women (Hodgson 2005). Also in Terrat, the majority of women joined the manifold churches that have mushroomed over the last decade¹¹. With the 'arrival' of climate change discourses the message is now, "stop praying to God for He has nothing to do with it [lack of rain], but plant trees instead"¹². This nascent scientific story about climate change appeared to be for some a true attempt to disprove the existence of God, to deny His power – a disenchantment of their understanding of the world. While this religious argument forms perhaps the most fundamental reason why the idea of climate change evokes confusion, and is by and large even repudiated in Terrat, it is only part of the explanation.

Before concluding this paper, I will briefly touch upon two other explanations that make translating climate change in Terrat a challenging endeavor. The first, which has a material grounding, can also be found in Leboi's statement. Since the semi-arid Simanjiro plains have always known an inherent pronounced climate variability, irregular rainfall patterns and environmental hazards like severe droughts are rather part and parcel of normality. Put in the words of traditional leader Lesira: "when I heard about climate change for the first time I thought it was just a repetition of the past. We had many drought spells in our history". Notwithstanding the manifold statements about the increasing unpredictability within the already variable climate,

10 It should be noted that while the word Engai comprises these three elements it is by and large associated with the supreme being. The meaning is context dependent and it should thus become clear from the conversation when one is referring to either rain, god or the sky; yet often their signification coalesces. Another word that is more frequently used for rain is *engan*, and another word for sky is *olaimg'ang'a*.

11 In Terrat alone there are five churches: one Catholic, one Lutheran and three Pentecostal, which are currently the predominant denominations in Maasailand.

12 Fragment from an educational movie in which Leboi plays a prominent role as an actor (TNRF and AfricaResource UK).

climate change constructs an instable climate as a deviation from what is normal. Hence, the norm of a constant climate enters as an alien idea.

The second forms a translation challenge and finds expression in the linguistic struggles over meaning making. In order for climate change to be understood a double translation is needed from English, to Swahili into Maa. Only a part of the populations understands Swahili, yet the official term for climate change – *mabadiliko ya tabia ya nchi* – is a highly technical one that remains largely incomprehensible, also to native Swahili speakers (see also Wisner et al. 2012). A close translation would mean something like: changes (*mabadiliko*) in the habits (*ya tabia*) of the country/land (*ya nchi*). While according to my knowledge there is no official term for climate change in the Maa language yet, there has been a translation attempt by the radiostation. One term that was coined by a documentary maker was: *engibelekenyata* (change) *engijape* (air) *engop* (earth/ground). Yet, according to the traditional leader this translation in Maa is not appropriate, for it is a too literal translation from Swahili, which does not do justice to the intricacies of the Maa language and culture. Here we are at the heart of every translation dilemma, for there is no language or culture perfectly commensurable. In this context, anthropologist Rudiak-Gould argues that climate change communication is ultimately a matter of translation, even within the same language and culture (for example from experts to a lay audience). Drawing on translation theory, the author shows that the translation challenge consists essentially in the inevitable trade-off between fidelity (to the source text) on the one hand and transparency (to the target audience) on the other (Rudiak-Gould 2011). Adhering to either one of these strategies goes at the expense of the other, as became visible in the abovementioned example. The translated term for climate change in Maa is so close to the original text in Swahili, that it has become incomprehensible to the target audience. Interestingly enough, this term was contested by traditional leader Lesira after which he proposed a remarkable alternative: *engibelekenyata* (change) *engai* (of god, rain and the sky). According to Lesira, while explaining about the industries as the principle cause of climate change, the domain of the air and sky is, ultimately, in the hands of God.

Conclusion

In this paper an alternative ontology of adaptation to climate change has been proposed by approaching it as a travelling idea, which continuously shapes, is shaped by and entangles different lifeworlds. It has been demonstrated that following this narrative in the making reveals particular power dynamics that are brought about when the idea gets translated across a distance; how it connects as much as it disconnects and transforms the ‘global’ and the ‘local’ in rather unpredictable and contingent ways. What follows from this analysis is that epistemologies of climate change are highly brittle, fluid and are embedded within specific ontological horizons, which make the so-called global and universal forms of knowledge production of “rational adaptation” a problematic promise. I have demonstrated how the travelling idea of ACC forms an analytic lens to explore dimensions of Tanzania’s political and cultural landscapes; while conversely, the different cases in Tanzania as presented here have been employed as a way to scrutinize the circulation of global climate change science in general and the ACC idea in particular. Methodologically, by following the idea’s trajectories across different places and describing the translation practices, it is argued that this travelling idea creates, and at times

also reinforces, distinctiveness among different actors and zones of translation. The Maasai of Terrat experience climate change discourses as a Latourian ‘double separation’ of the world, a purification in which Nature and Culture are separated from each other, and God relegated to the margins (Latour 1993, 13).

Concretely, this tension also finds expression in the government’s irrefutable wisdom that the pastoralists are highly vulnerable to, and thus ‘victims’ of climate change, versus the NGOs’ counternarrative that holds instead that they are ‘masters’ of adaptation. Furthermore, it has been shown how both long outdated and misconceived scientific as well as conservationist paradigms are given new life by the travelling ACC idea. Finally, the emerging narrative about the iconic Maasai as ultimate victims and perpetrators of climate change and environmental degradation, as stipulated by the Tanzanian government, obscures the highly politicized nature of the ‘adaptation imperative’. Within the context of a neo-liberal political landscape, in which large scale land acquisitions by foreign investors continue to take place, evicting thousands of Maasai from their grazing lands and excluding them from their most vital resources, the vulnerability discourse is ‘repackaged’ as the need to adapt to an unpredictable climate. Hence, climatic change, claimed to be manifest as severe droughts, is neutralized and embraced as a welcoming scapegoat by the government to explain the marginalized position the Maasai find themselves in.

In light of adaptation’s highly politicized journey in Tanzania, it has been argued that adaptation to the idea of adaptation, rather than to the climate’s bio-physical conditions alone, deserves more critical scrutiny. The case of Terrat is telling as this nascent idea is met with great hesitation, pointing not only to the ‘incompatible ontologies’ between what is drafted globally and experienced locally; but it also reveals that along the translation chain a “clash of adaptations” occurs that reinforces the already existing power struggles between the government on the one hand and the pastoralists on the other. Therefore, perhaps, a more critical question to be asked in the adaptation debate is not so much how to adapt, but rather how can the ideological underpinnings of this question be brought to light.

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