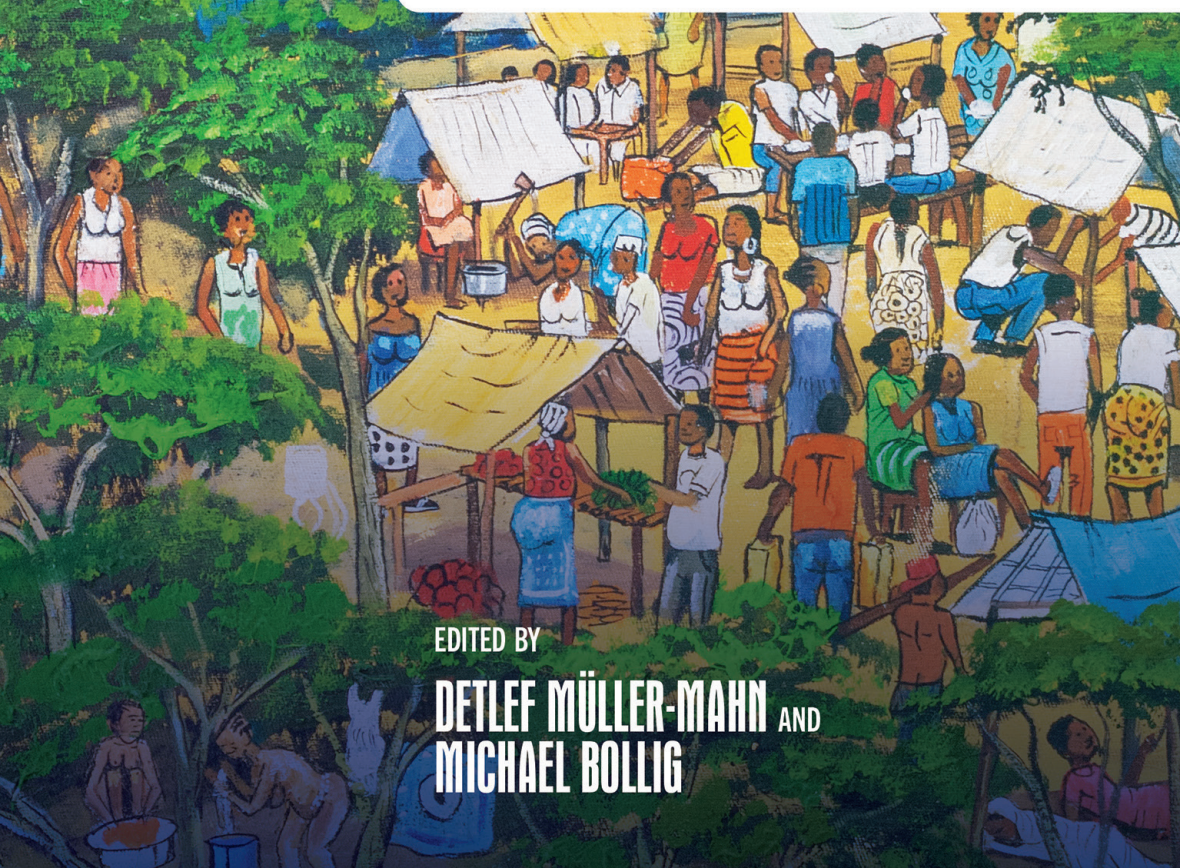




AFRICAN FUTURES IN THE MAKING



EDITED BY

DETLEF MÜLLER-MANN AND
MICHAEL BOLLIG

AFRICAN FUTURES IN THE MAKING

FUTURE RURAL AFRICA

Series Editors

Michael Bollig and Detlef Müller-Mahn

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African Futures in the Making

Edited by
Detlef Müller-Mahn and Michael Bollig

JAMES CURREY



Published in association with
Future Rural Africa

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Cover image: Painting by Tanzanian artist Lyombo, in collaboration with German postdoctoral researcher Theo Aalders, depicting the creation of a hydroelectric power construction site in Tanzania. © Collaborative Research Centre TRR 228 ‘Future Rural Africa: Future-making and social-ecological transformation’. This painting was produced during a workshop with local residents who were invited to visualise their ideas about the future. It highlights the contrast between the fenced-off machinery park and the bustling, impromptu village for aspiring labourers next to it. While young men line up in front of a Chinese engineer in the hope of finding a job, women in the village provide basic food and care work. The painting illustrates the link between ‘future-making’ and often precarious labour, and how infrastructure projects create both new connections and barriers.

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Introduction

Future-Making and Social-Ecological Transformation in Rural Africa

DETLEF MÜLLER-MAHN AND MICHAEL BOLLIG

Academic Approaches: African Rural Futures in the Context of Political Transitions¹

This book aims to present multifaceted approaches to African futures by combining different disciplinary perspectives, case studies, and interpretations. It addresses African futures ‘in the making’. The title highlights three key aspects of this topic: the agency and agents involved in shaping the future, the unfinished nature of these activities, and the existence of multiple possible futures.

The edited volume assembles a kaleidoscope of empirical examples and epistemological reflections to paint a colourful picture of rural Africa and its manifold ways of future-making: smallholder farmers experimenting with innovative digital techniques, pastoralists benefiting from market-based drought-insurance schemes, mobile money connecting rural and urban customers, renewable energies opening up new development potentials, growth corridors reaching out into peripheral regions, ‘green’ models of development serving as blueprints for national development plans, global visions of wildlife protection driving the establishment of large conservation areas as

¹ This edited volume is based on findings and conceptual reflections of the Collaborative Research Centre (CRC) ‘Future Rural Africa’, together with contributions by research partners and invited authors. The CRC is financed by DFG, the German Research Foundation. It focusses on social-ecological transformation and future-making in rural Africa, especially in areas of rapid land-use change following the establishment of development corridors, conservation areas, and large-scale infrastructures. Geographically, research activities concentrate on Southern and Eastern Africa, combining different disciplinary backgrounds, from ecology, agriculture, and economics to human geography and cultural anthropology (see: www.futureruralafrica.de).

well as the proliferation of community-based conservation schemes, religious communities providing hope for a better life to their followers, and university curricula and African intellectuals searching for genuinely African alternatives to Western models of development and modernization. The case studies and critical epistemological discussions in this book represent a great diversity of examples aiming to understand how the future of rural Africa is reflected in contemporary debates, how it is shaped by development initiatives, and how it unfolds in processes of social-ecological transformation. The key question is how futures are ‘made’, i.e., how Africans envision their own futures, how people reflect upon the perils and opportunities of the way ahead, what they do to achieve what they envision, and which external conditions play a role in this context. We also consider how social institutions, and formal state institutions as well as informal institutions, embellish, support, or hinder specific future-making imaginaries and practices.

Africa is the youngest continent in terms of the average age of its inhabitants; its population is the most rapidly growing in the world. Its ecology is severely affected by global environmental change. Resource extractivism in the face of rapid globalization is accelerating. These long-term trends are widely covered in scientific publications, depicted at length for example in *The Routledge Handbook of African Demography* (Odimegwu and Adewoyin 2022) and the IPCC-6 Report of 2022 (Trisos *et al.* 2022). They are summarized neatly by Bello-Schünemann *et al.* (2018) in a short paper titled ‘African Futures 2035: Key trends’, an edited volume on landscape change and future trajectories (Shackleton *et al.* 2019), and various blogs on African megatrends.² The contributions to this present book look at African futures from another angle, building upon the observation that the continent is full of initiatives to transform environments and human livelihoods, adopt new digital technologies, expand modern infrastructures, and shape future conditions according to visionary plans. The focus of the book is not on projections and forecasts, but on two interrelated dynamics that are already highlighted in the title of this introductory chapter. Social-ecological transformation refers to the changing human-environment relations, while future-making denotes the practices, processes, and actors that make the future an issue in the present. The book explores how imaginaries and practices of future-making impact social-ecological transformation, and vice versa.

In this introductory chapter, we want to discuss research on futures and future-making in a more general way. Therefore, we will sketch out what

² E.g.: <https://www.activatorhq.com/the-top-100-megatrends-that-are-shaping-business-and-life-in-africa-right-now/>; <https://www.megatrends-afrika.de/publikation/mta-joint-futures-28-envisioning-african-futures> [Accessed 18.12.2024]

futures and future-making entail in a broader sense and continue to outline different social-science- and humanities-based approaches to the topic. We then explore how the articles in this volume contribute to the overall topic in diverse ways. The title of the introductory chapter – social-ecological transformation and future-making – refers to two processes that are obviously related, because they both lead into the future, but do so in different ways and should therefore be conceptually clearly distinguished. Social-ecological transformation highlights the consequences of the interaction between humans and their environment, which shape the conditions of future livelihoods and ecosystems. The meaning of future-making, in contrast, highlights the ‘making’, i.e. the agency that is needed to act upon the future, putting the focus on the actors and their multiple efforts to influence future conditions in their own respective interests and according to their own imaginations. Understanding the duality of these two sides is important, because they influence each other insofar as humans act upon their environment, and the environment frames the potentials and risks with regard to future changes. This becomes particularly obvious vis-à-vis the effects of climate change, which strongly impact upon future living conditions, without completely determining them. Mike Hulme, himself a climatologist, therefore strongly argues against ‘reducing the future to climate’ (Hulme 2011).

Interest in African futures is nothing new. Notably, however, this interest has changed considerably over the years, reflecting the different phases of global historical development. There was a particular fascination with the future at the time of decolonization in the 1960s, when African nations gained independence and hoped to benefit from new opportunities for freedom and self-determination (Hunter 2018, Cooper 2002). It was an era of charismatic leaders such as Julius Nyerere, Kenneth Kaunda, and Léopold Senghor, who promoted visionary concepts for the future of Africa, including African socialism, humanism, Ujamaa, and Ubuntu. The Bandung Conference of 1955 and the Non-Aligned Movement offered alternative pathways for the newly independent states of the so-called Third World (Lee 2010). Following the ‘lost decades of development’ in the 1970s and 1980s, the end of the East-West confrontation around 1990 sparked new hopes for democratic reforms and societal transformation, which did not last long. A third wave of Afro-optimism emerged 20 years later when the high economic growth rates of the second decade of the new millennium fuelled the ‘Africa Rising’ discourse. This growth narrative was actively supported by international finance organizations. Christine Lagarde, the managing director of the IMF at the time, opened an IMF conference in Maputo, Mozambique, in May 2014 with a keynote address on ‘Africa Rising – building to the Future’. All this illustrates the ups and downs of imagined African futures, with discourses oscillating between

optimism and pessimism, which has been symptomatic of overall outlooks both within and beyond the African continent. In his book *The Postcolonial State in Africa* (2014), Crawford Young calls this phenomenon the ‘cycles of hope and disappointment’. More concretely, the ups and downs of imagined futures have also been reflected in national planning and contested ideas of development in African countries (Decker 2020).

This edited volume builds upon previous scholarship presented in similar publications on the future of the continent. To name just a few, the book titled ‘African futures’ edited by Goldstone and Obarrio (2017) addressed the question ‘Where is Africa heading?’, presenting contradictory visions and processes that illustrate the fundamental uncertainty and plurality of views on how the continent is going to develop; Abiodun Alao (2019) makes the claim for ‘A New Narrative for Africa’, calling for a shift from viewing the continent as a problem waiting for solutions to a new understanding of an Africa that has ‘voice and agency’; likewise, the collection ‘African Futures’ edited by Greiner, van Wolputte, and Bollig (2022) contains 30 articles that demonstrate the diversity and multiplicity of the field. These recent edited volumes indicate that the topic is currently at the forefront of scientific research.

While the prospects for Africa have long been subject to contestation, this book takes a distinctly different perspective. Previous debates about the development of the continent have meandered between the hopeful years after independence, followed by decades of pessimistic assessments depicting Africa as the ‘hopeless’ or ‘tragic continent’ (e.g. Leys 1994, Allen 1999, for a critique, Kappel 2014), and more recently the economic growth projections of the ‘Africa rising’ hype (Taylor 2014, Nachum *et al.* 2023 for a critique, Asche 2015) or the cultural-political optimism of an ‘African Renaissance’.³ The case studies in this book tell a different story by presenting examples of Africans actively engaging with the future, not as powerless victims in need of help, but as self-conscious and responsible future-makers embedded in an environment characterized by major global environmental challenges and substantial frictions within the global economy. This is an attempt to get beyond the notorious ‘Africa as a problem’ narrative, rightly criticized by Abiodun Alao (2019).

Future-making and futures of and in rural Africa are an emerging phenomenon, a field ‘under construction’, and as such it appears ambivalent, fluid, and difficult to grasp. It is constantly in the making, while the present and even past visions of the future turn into history. Vast stretches of land are currently being put to new uses, coming under new forms of governance,

³ See the *International Journal of African Renaissance Studies*, <https://www.tandfonline.com/journals/rars20>

with new ownership patterns and new forms of production. These processes unfold an enormous transformative power affecting millions of people and their natural environments. And yet it remains largely uncertain where these multiple changes will lead. The future of rural Africa is open – for transformation, surprise, hope, fear, visions, speculation, and contestation. These changes happen in an environment characterized by controversial visions of the current state and future prospects of the continent. On the one hand, optimistic outlooks such as the ‘African growth miracle’ (Young 2012, McMillan and Harttgen 2014), the ‘continent of opportunities’ (Hansen 2017), and ‘the conservation continent’ (Desalegn *et al.* 2020) are featured by international development banks and foreign donor organizations as well as African governments themselves. On the other hand, critical voices are sceptical about whether current developments are sustainable and beneficial, and they warn of a ‘new scramble for Africa’ (Carmody 2016). Amidst these controversies, the future is explicitly addressed as the bone of contention. The question arises as to whose future the different voices are referring to, who produces the various visions of the future, and how these alternative visions are put into practice. As the chapters of this book argue, along with empirical examples, the future is not simply emerging from the past but is manufactured in an interplay of numerous actors, interests, and institutional settings linked across manifold scales.

In the following, we discuss research on futures and future-making in a more general way, sketching out what futures and future-making entail in a broader sense, and how these topics can be approached in the social sciences and the humanities.

Studying futures and future-making

What is the future, and how can it be researched? The question may sound trivial, but it is not, as the large body of literature on the topic indicates (e.g. Urry 2016, Augé 2014.). Simply said, the future is any moment in time beyond the present. As such, it is not immediately accessible for empirical research, because it is not yet ‘here’. It can only be empirically captured in so far as it is made an issue in the present – in other words, through the practices of future-making. As John Urry puts it, ‘The future has most definitely arrived but what exactly it is remains a mystery...’ (Urry 2016: 1). What can be researched, however, is how the future gets ‘folded into the present’ (Anderson 2010), i.e. how it becomes an issue in contemporary politics, an object of hope or fear, and a mobilizing force of social change – which is happening in the present. All this is subsumed under the term future-making, which comprises all sorts of human activities that aim to shape the conditions under which we shall live in the time to come. When we talk of future-making, the ‘making’ highlights

the importance of human agency, in contrast to other conceptualizations that highlight emerging futures in terms of destiny, doom, or fate.

Conceptualizing the future in terms of human agency places the topic within the focus of the social sciences. As Marc Augé (2014: 1) points out: ‘The future, even when it concerns the individual, always has a social dimension: It depends on others’. This is an interesting argument, because it distinguishes between individual and societal futures, which have different durations and potentially also different objectives. Individual futures are usually confined to a lifetime, serving the specific needs and interests of an individual. Societal futures extend beyond one’s own life, reaching out at least into the next generation, and into collectively held imaginations and visions. Societal futures are therefore much broader, they are open for contestation, and they are typically the object of future studies.

In his book ‘The Future as Cultural Fact’, Arjun Appadurai (2013) presents some thoughts about ‘how humans construct their futures’ (ibid.: 286). He identifies three ‘notable human preoccupations that shape the future as a cultural fact’ (ibid.: 286), or cultural practices of future-making, namely anticipation, imagination, and aspiration (ibid.: 285ff.). These three practices make the future actionable, although in very diverse directions. In that sense, Appadurai distinguishes between two types of futures: a future of probabilities and a future of possibilities. Conceiving of the future in terms of probabilities relates it to calculated risks and opportunities, to forecasts and modelling, which is done through practices of anticipation. A future of possibilities, in contrast, is open to dreams, hopes, or grand visions, and it is therefore approached through the practices of imagination and aspiration. In Appadurai’s view, the future of probabilities stands for a rather narrow and deterministic understanding, whereas the future of possibilities indicates the manoeuvring space in which societies may operate.

The IPCC reports are examples of futures of probabilities (Niang *et al.* 2014, Trisos *et al.* 2022). They predict the extent and consequences of climate change based on past climate-observation data and model-based forecasting. Another example is the application of weather forecasts and scientific knowledge in smart-agriculture approaches. Software engineers and adherents of smart agriculture promote increases in agricultural productivity by transferring new digital technologies and agricultural extension to farmers in order to lay the basis for future productivity gains and well-being (Matejeck *et al.* this volume). In a similar vein, proponents of development corridors’ contribution to national economic growth anticipate high returns on investments into rural infrastructure (Revilla Diez *et al.* this volume). The second of these practices refers to the visions, shared ideas, and plans that drive a society. The practices of imagination are deeply embedded in social networks and the

building of ‘imagined communities’ (Anderson 1983), i.e. groups of people who share some common beliefs, for example in a common future. Such practices are inextricably linked to local cultural imaginaries as well as to global flows of ideas, designs, and ideologies. The vision of Africa as a conservation continent discussed by Vehrs and Bollig (this volume) and of a rapid transition towards a ‘green economy’ as detailed by Kioko *et al.* (this volume) resemble positive imaginaries rather than actual projections. Finally, there is aspiration, which comprises the hopes and dreams of people. The future may therefore be conceived of in many ways. While anticipation aims at a future that is narrowed down to probabilities, the other two practices – imagination and aspiration – conceive of the future more openly in terms of possibilities, visions, and desirable conditions. Schulz and Kovac (this volume) depict the faith-based aspirations of born-again Christians confronted with rapid economic and ecological change but endowed with a powerful ideology of personal improvement. Guma (this volume) analyses the aspirations of people handling digital phone-to-phone monetary transfers. Guma argues that the opportunities such digital transfers bring about impact kinship solidarity and intra-family transactions profoundly.

African futures are constantly evolving, which makes the topic of this book particularly relevant and scientifically challenging. Like everywhere else in the world, futures are always emerging, being reinvented and rejected, designed and destroyed. Of course, such future-making on the African continent and by African actors does not happen in an isolated space but is informed by global imaginaries, concepts, and models. African futures are the objects of dreams and fears, scientific forecasts and vernacular imagination, public debates and personal ambitions. What makes African futures so relevant and timely for scientific research is the fact that the way forward is extremely uncertain, contested, and conflict-ridden. In Africa, as in the rest of the world, people do not agree about desirable goals, but what makes the focus on African future-making so relevant is the gap between winners and losers, which seems to be bigger than in other parts of the world. The fact that the struggle for desirable futures is embedded in a problematic history of foreign domination and exploitation permeates future-making on the continent in all fields. But how can African futures and future-making be decolonialized? This is an essential question that Ndlovu-Gatsheni and Ajei follow up in two introductory chapters.

African futures emerge out of present conditions, but they are at the same time deeply embedded in historical developments. Emerging futures are therefore not completely coincidental, because they build upon what has been there before. They are influenced by the past, without being predetermined. At the same time, futures are open to surprise, to unexpected events and unprecedented conditions. African futures unfold along pathways, building

upon societal and spatial structures. These pathways are prepared by huge infrastructure projects, large-scale land-use change, and particular power coalitions. Infrastructuring is a global phenomenon, which in many cases has a particularly deep and rapid impact in rural Africa, where hyper-modern infrastructure meets with challenged livelihoods, immensely dynamic social systems, and complex forms of governance.

Debates about African Futures may become very concrete when they are translated into policy papers and development projects (see Matejcek *et al.*, Kioko *et al.*, Vehrs and Bollig all this volume). They are envisioned in national plans like Kenya's Vision 2030 or Tanzania's Vision 2025 and are subsequently supported by internal and external funding sources. Some of these plans are currently being revised to prepare for the coming decades and emerging challenges. The African Union agreed upon a continental 'Agenda 2063' with the programmatic subtitle 'The Africa We Want'. It is portrayed as 'Africa's blueprint and master plan for transforming Africa into the global powerhouse of the future'.⁴ African governments are using blueprints of desirable futures, like Kenya's ambition to become a middle-income country through the realization of the national development plan 'Vision 2030', or Ethiopia's vision of a green economy and a grand renaissance, expressed in the name of the biggest mega-dam of the continent.

What is special about 'African' futures – or to put it another way, what makes them 'African'? The question itself is not at all trivial, as the philosophical reflections in the contributions of Ndlovu-Gatsheni and Ajei in this book clearly show. African futures may be seen as global alternatives, as Felwine Sarr argues in 'Afrotopia' (Sarr 2016), but they are at the same time part of global futures. Quite obviously, there are many similarities with the practices and processes of future-making anywhere else in the world. The question of what constitutes a particular identity or 'Africanness' with respect to ideas is therefore not easy to answer. Ideas may travel and become universal, so that geographical branding becomes inappropriate. The criterion that may apply here is perhaps not so much the origin, but the ownership of ideas. What makes African futures 'African' is first and foremost the views and expectations of Africans themselves: academics, politicians, or 'ordinary' people. Understanding these views and expectations is essential, because African future-making will have to cope with the multiple overlapping challenges of climate change, demographic transition, poverty, and increasing vulnerability to natural hazards and food shortages.

Many of these expected challenges and transformative processes will unfold in rural spaces. It is of course self-evident that rural-urban dichotomies do

⁴ <https://au.int/en/agenda2063/overview>

not help to explain the complex relationships between different geographical regions and settlement patterns in Sub-Saharan Africa. This bias is addressed by several of the chapters of this book, because the dynamism of future-making is conventionally associated with urban centres, while the rural is often viewed as the backstage area, a waiting-room of development (as elaborated by Guma, this volume). Yet, much of what affects African futures plays out in rural environments as well and may even become visible there more clearly than in urban centres.

We view the rural not in a dualistic way as the opposite or the absence of the urban, but as a socio-spatial entity that is intertwined with ‘the urban’ and ‘the world’ through various connections, like commodity chains, agro-food systems, migration regimes, information and communication networks, or other global flows in the context of globalization. Boundaries between the rural and the urban are progressively blurred, with urban residential settlements mushrooming in rural areas, multi-local households, new technologies like mobile phones, and digital cash transfers. Woods (2007: 492–4) identifies several general characteristics of the ‘global rural’, including its function as an object for the attraction of foreign investment and large-scale land acquisitions, the changing discourses on ‘nature’ and land use (commercial exploitation vs. conservation), the inscription of marks of globalization (e.g. primary vs. commercial forests), and the impact of new political authorities (e.g. trade agreements). These characteristics overlap in rural areas and turn them into contested spaces of globalization.

The power of visions

One cross-cutting theme in the contributions to this book is the question of to what extent future-making practices are influenced by shared imaginations, ‘fictional expectations’ (Beckert 2016), and the power of visions and their impact on political action in the present. The relevance of this question becomes visible with a look at the national development plans most countries in Africa use as long-term guidelines for national policies. Kenya’s ‘Vision 2030’, for example, explicitly aims at transforming the country into a middle-income country, following a vision of modernist development (see contribution of Kioko *et al.* this volume). Kenya’s policies and investment in infrastructure are directly linked to this vision, as Greiner *et al.* (this volume) show for Kenya’s energy sector. Vehrs and Bollig argue that visions of future wildernesses in conservation landscapes prompt philanthropists and powerful international conservationist NGOs to invest in conservation activities and directly contribute to social-ecological transformation. The African Union (AU), as the overarching political organization of the continent, initiated its Agenda

2063 in 2013 as a strategic framework to achieve inclusive economic development over the coming 50 years (African Union 2014). Its goals explicitly refer to the sustainable development goals of the United Nations and combine them with the endeavour to improve human well-being and sustainable livelihoods. This includes the eradication of poverty, political integration, a strengthening of African cultures and identities through an ‘African Renaissance’, the establishment of justice, peace, and security in all parts of the continent, and liberation from foreign dominance. The goals of Agenda 2063 have been translated into 15 flagship projects, which are meant to give a big push to the economic and social development of the continent, including the construction of a high-speed train network, the establishment of a common free-trade zone, and several large infrastructure programs. To what extent the ambitious goals of the Agenda 2063 will realistically be achieved remains questionable, as the year 2063 is still far away.

As Revilla-Diez *et al.* (this volume) show, one of the tools of achieving the great visions expressed in the ambitious national development plans is the building of growth corridors linking rural peripheries to the growth poles of harbours and metropolitan areas. These infrastructure megaprojects are driven by modernist visions of economic growth and spatial development. The corridors may therefore be considered as perfect representations of what Jasanoff and Kim (2015) called ‘dreamscapes of modernity’ (Müller-Mahn 2020). However, as Revilla-Diez *et al.* (this volume) point out, the reality of these spatial development initiatives is often quite different from what had been envisioned. The concept of corridor-based development clearly has a colonial legacy, dating back to colonial times, when the colonial powers used roads and railways to gain control over the vast territories they had conquered and to organize the exploitation of resource-rich regions and their inhabitants (Griffiths 1997). Up until today, the coloniality of these large infrastructure projects remains obvious (Aalders 2020; Enns and Bersaglio 2019, Jackson 2025). Corridors continue to be entry points of powerful external actors, as the contribution of Revilla-Diez *et al.* (this volume) shows: they connect rural hinterlands to value chains and the wider world, but not to the benefit of all people concerned and certainly not to the benefit of small-scale producers in rural areas.

The belief in technological approaches has been characteristic of agricultural development initiatives for decades, and it also informs the visions of agricultural futures today, as Matejcek *et al.* (this volume) show in a case study of mobile-phone applications for agricultural extension services in Tanzania. However, the use of mobile phones to send SMS messages with weather forecasts and technical advice to farmers in distant parts of the country may

sometimes miss the reality on the ground, because the advisors do not sufficiently know the local situation.

A very different example is the introduction of index-based livestock insurances in Northern Kenya and southern Ethiopia (Scoones *et al.* this volume). They show that this finance-technical instrument creates an imaginary of a future that can be anticipated and managed, and where risks are under control. This approach helps to mitigate the intrinsic uncertainties of livestock production under the unpredictable conditions of pastoralism, but as it is not available for all pastoralists, it exacerbates existing inequalities.

Long-term trends and pathways

While this book is primarily interested in future-making practices and the relevance of human agency, we have to acknowledge that the evolution of future conditions in rural Africa is also influenced by long-term trends. This is not to say that pathways into the future are subject to environmental determinism, but rather that they unfold in an interplay between local agency and the confining impact of long-term environmental, societal, and political trends. Most prominently, these are the two megatrends of climate change and demographic transition.

Outside of Africa, climate change is often seen as the dominant long-term trend of transformation on the continent. The IPCC reports have repeatedly warned of its devastating effects, presenting Africa as the most severely affected continent, with a low capacity to adapt (Niang *et al.* 2014). Climate change goes along with changing precipitation patterns, less rainfall, longer periods of drought, land degradation, and lower yields. These effects are already clearly visible all over Sub-Saharan Africa, and especially in rural areas, where it is feared that climate change will exacerbate the degree of vulnerability and poverty.

The contribution by Opondo *et al.* (this volume) shows how the effects of climate change intersect with the local livelihoods of pastoralists in northern Kenya. Frequency and severity of droughts have increased over the past decades, repeatedly causing famine and calling for international relief interventions. The paper argues that extreme climate events are particularly harmful for women, and that they therefore tend to aggravate the gender imbalance. Climate change forces people to apply short-term coping mechanisms with harmful effects on the environment like overgrazing or deforestation. The study addresses a question that is indeed very important for an understanding of future-making under such precarious conditions and the impact of long-term trends. The question is whether people are passive victims of long-term trends, or whether they have the capacity to actively adapt, choose appropriate

response strategies, and influence future conditions in their own interest. The study by Opondo *et al.* observes that the answer to this question is not an either-or, but rather that the response to the detrimental impacts of climate change encompasses a wide range of practices, some of them rather harmful for the environment, but others opening up new opportunities and the development of alternative livelihoods.

The second megatrend is related to demography. Population growth rates have been much commented upon (Linard *et al.* 2013), but demographic changes do not only pertain to population growth. Africa is rapidly urbanizing. Recent estimates indicate that half of Africa's population is expected to be urban by 2030, and by 2050 the estimate rises to 60 per cent⁵. Despite the associated structural challenges, Africa's futures are increasingly urban. African policy-makers and economists see urbanization as an opportunity for realization of the AU Agenda 2063, promoting continental integration in the framework of the African Continental Free Trade Area, which brings together 55 countries in the AU and eight Regional Economic Communities. This integration sets forth an African economic powerhouse that is expected to redefine trade and compete with the rest of the world. The Agenda envisions African cities as being hubs of economic and cultural activities that ultimately contribute to the prosperity of the continent.

Rural areas are equally central in realizing the visions of a better future for Africa. Rural areas provide the needed space for mega infrastructure installations such as geothermal, wind power, and hydro schemes, which drive urban growth. The promises of megaprojects may sometimes be misleading, but people see them as 'beacons of hope' (Müller-Mahn *et al.* 2021). Greiner *et al.* (this volume) show how energy transitions and related infrastructure reconfigure African landscapes. Geothermal energy exploitation and power from Africa's largest wind-energy park in arid northern Turkana make Kenya a forerunner in energy transition. The rural landscapes here act as sacrifice landscapes that provide the energy for Kenya's rapidly growing economy. Furthermore, Africa's rural areas are increasingly experiencing the positive externalities associated with the spread of infrastructure and better services including physical and social infrastructure and ICT, which create opportunities for rural people, as aptly described by Guma (this volume). Ultimately, these notions of modernity shape the visions and aspirations of people living in the rural areas of Africa, just as they do for the rest of the world.

⁵ Press release of the African Union on September 4, 2024, <https://au.int/en/press-releases/20240904/africa-urban-forum-co-creating-solutions-make-cities-habitable-growing> [Accessed 18.12.2024]

African futures are also linked to the rapid growth of the youth population in both rural and urban areas. African youth are considered a fundamental resource capable of unlocking the continent's potential, while still contributing to the universal labour force. In his book, 'Youthquake: Why African Demography Should Matter to the World', Edward Paice (2021) opens up the critical debate on the relationship between population growth and the developmental prospects of Africa by rejecting the predicted apocalyptic scenarios and doom-laden prophecies for the continent and considers the influence and action of the youth for Africa and the world. The 'African youthquake' presents an opportunity and a valuable resource for Africa and the world, and as such should demand the world's attention.

The role of infrastructure and technology

Ambition and great expectations are powerful drivers of the current infrastructure boom and the resurrection of megaprojects all over the African continent. Megaprojects may be considered as 'aspirational projects' (Müller-Mahn 2020), insofar as "they serve as tools of future-making, as iconic landmarks of transformation" (Müller-Mahn *et al.* 2021). Under these conditions, the pathways into the future are highly influenced by technological innovation and the availability of new technologies, closely connected to the expansion of infrastructure.

New technologies have spurred an 'information revolution', as Murphy and Carmody (2015) show in a study of South Africa and Tanzania. The introduction of mobile phones was a game-changer for telecommunication, causing an unprecedented leap-frogging development by connecting people without land lines or a stable electricity supply. By 2022, the number of mobile-phone subscribers in Sub-Saharan Africa had reached 489 million, equivalent to a penetration rate of 43 per cent, and it is expected to rise further.⁶ Mobile internet users in Sub-Saharan Africa rose from 170 million in 2017 to 290 million in 2022.⁷ Mobile connectivity has become a major driver of digital and socioeconomic transformation all over the continent. It opens up astonishing new opportunities, not only in the urban centres, but also and perhaps even more so in the rural peripheries. Mobile-money services were first introduced in Kenya and Tanzania in 2007 and soon spread all over the continent. M-PESA provides financial services for people who own a mobile

⁶ <https://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-economy/sub-saharan-africa/> [Accessed 18.12.2024]

⁷ <https://businessday.ng/technology/article/africas-mobile-internet-users-rise-to-71-in-2022/> [Accessed 18.12.2024]

phone, but have no bank account. It allows them to send or receive money, receive salaries, make payments, or top-up airtime.

The widespread use of mobile phones and mobile money creates a new intensity of connections between urban centres and rural areas, which is particularly relevant in the context of mass migration and urbanization. In a case study of two villages in Uganda, Prince Guma (this volume) shows how regular phone calls and money transfers between relatives and friends help to maintain the relations between migrants and those who have stayed behind. Matecjek *et al.* (this volume) deal with smart agricultural applications and trace the manifold ways they are brought forward to farmers. Whereas Guma finds that mobile-phone applications and especially mobile-money transfers are real game-changers in southwestern Uganda and bring countryside and urban areas closer together, Matecjek *et al.* view smartphone applications in agriculture rather sceptically and find more vision and promise than actual advancement. Technological innovations are also prominent in the energy field. Kenya has made major progress in its transition towards renewable energies. Geothermal energy and wind power are rapidly gaining in significance. Rural areas of northern Kenya – stretches of land that until recently only contributed livestock to the markets of central Kenya's cities – now supply energy to cities (see Greiner *et al.* this volume).

Intensification and conservation

Two dominant types of land-use change can be discerned in rural Africa: intensification of agricultural production on large and medium-sized farms; and conservation of natural resources in national parks, community-managed conservancies, and game reserves. Both processes are currently gaining ground in a highly dynamic, but also quite controversial way.

Processes of agricultural intensification include, inter alia, the establishment of large irrigation schemes for the production of rice, maize, and other cereals primarily for domestic purposes, aiming to improve national food sufficiency. Putting an end to hunger and improving the nutritional basis of a growing number of people are political goals that are given high priority in the national development plans of many African countries. Other irrigated farms produce vegetables, cut flowers, and biofuel for export, thus contributing to national incomes. The agro-industrial cluster in Naivasha, Kenya, is an example of highly specialized production for the European market, associated with massive changes in the local social-ecological system (see edited volume by Kuiper *et al.* 2024). Agricultural intensifications are instigated by massive capital flows, both from foreign and domestic sources. The investments were initially aimed at export-oriented production, often guided by international agreements and

global value-chain development (see Revilla Diez *et al.* this volume). They are closely connected to global change, but they also respond to transformative processes at national and regional scales, e.g. ambitious national infrastructure and development plans, rapid growth of urban centres, the rise of new middle classes with new patterns of consumption, the introduction of modern technologies, and the increasing interest of urban elites in land investments. Spaces of intensification are mostly concentrated in high-potential areas with favourable resource bases and good infrastructural connections to airports and/or harbours, resulting in the establishment of capital-intensive agro-hubs and growth or development corridors, and the emergence of new urban agglomerations. These processes have far-reaching consequences for local livelihoods, whether through violent evictions, development-induced displacements, labour migration, or other forms of voluntary or forced movements of people. Due to their social consequences, these processes are often controversially debated in African societies, as the two philosophical contributions to this volume by Martin Ajei and Sabelo Ndlovu-Gatsheni indicate.

Conservation, the second type of change, seems to take the opposite direction, because agricultural and pastoral forms of land use are marginalized or even excluded from the conservation areas. Over the past years, parks and protection zones have been expanded, primarily in southern and eastern Africa. Many large national and transnational parks, game reserves, and nature-conservation areas are implemented under the guidance of international organizations and programs. In addition, private landowners and local communities throughout these regions are establishing smaller community-managed conservancies (Bollig and Menestrey Schwieger 2014, Bollig *et al.* 2023) and commercial game farms.⁸ Zones of conservation are not only seen as attractions for tourists, but are also presented as carbon sinks and a response to climate change or biodiversity loss (Nzabarinda *et al.* 2025).

As noted above, at a first glance it may seem as if these two avenues of land-use change have been heading in opposite directions, i.e. intensification versus conservation, or commodification of nature into marketable goods versus preservation of nature for the sake of the protection of biodiversity and natural heritage. However, on closer examination it becomes questionable whether the two processes are really so different in their intrinsic logics and consequences. Obviously, they both respond to global regulatory regimes and incentive structures, leading to a transformation of nature and social ecologies. As a consequence, both avenues of land-use change converge in massive transformations of local livelihoods, including the marginalization,

⁸ The big business of South Africa's game farms | Africanews, www.africanews.com/2019/06/19/the-big-business-of-south-africa-s-game-farms/#

dispossession, and even eviction of local populations, with an impact on land ownership, labour, food security, health, and social structure. What makes these processes problematic for many people is not so much change as such, but its unpredictability.

Overview of the contributions

This edited volume is organized in three parts. Part 1 contains two contributions that seek to assess approaches to our analysis of future-making practices and imaginaries. Both authors address this topic with a decolonial lens. Part 2 has five contributions that focus on different approaches of future-making for rural communities on the African continent. The common denominator of these future-making approaches is that they are designed by outsiders for rural African communities and landscapes. It is often state administrations, outside industries, and affiliated markets and international development consortia that promulgate such imaginaries and design blueprints for practices and institutions aligned to them. Part 3 of this edited volume deals with diverse strategies employed by rural dwellers to aspire a brighter, wealthier, more resilient future. These contributions look at the influence of intersectionality (specifically age and gender), faith, the adoption of communication technologies, and multiple ways to devise insurances for rural African communities. Below we briefly introduce each chapter.

Part 1 Bringing Future-Making into Perspective – African Perspectives and the Decolonial Turn

In a comprehensive introductory chapter '**Black/African Imaginations of the Future**', Sabelo Ndlovu Gatsheni addresses the coloniality of some future projections habitual and pertinent in planning and policing on the African continent and contrasts these with authentic African registers to talk about the future. He singles out these registers as evidence of the manifold struggles involved in reworlding present and future in a world informed by hegemonic versions of future-making. African utopic registers are challenged by the coloniality of temporal frameworks that often relegated those who were conceptualized as Black, local, native, or Indigenous into an unchanging past and a lack of temporality. Ndlovu Gatsheni convincingly excavates African utopic registers from the debris of history. Garveyism, Negritude, Pan-Africanism, and African Renaissance as well as more recent registers like Afrotopia, Afropolitanism, globalectics, and feminism – these powerful tropes were certainly confined by coloniality but at the same time were capable of expressing authentic African ingenuity in addressing the potentiality of future states.

Ndlovu Gatsheni's poignant reflection of the coloniality of time is of crucial significance for all contributions of this volume. Colonial visions of time are deeply informed by the linear character of temporality: the past, the present, and the future are neatly spaced on a continuum that itself is framed by ideas about modernity and progress. Africans were habitually linked to the past and generally speaking challenged by the present. Future registers engaged thoughts on modernity as a distinct counterpoint to the past. Specific strategies to deny co-presence and utopia are analysed and linked to the colonial ideological apparatus. The Kenyan author and politician Ngũgĩ wa Thiongo interpreted the application of European registers of the future and of modernity as 'cultural bombs' preparing African minds for mental colonization. Ndlovu Gatsheni then elaborates, using various examples, the diversity of authentic African future registers. Starting off with Garveyism and diasporic imaginations and Leopold Senghor's well-formulated ideas on Negritude and the remaking of the African personality, Ndlovu Gatsheni leads us through a time-scape of African future registers. These registers at times strictly juxtaposed African and colonial registers and at other times emphasized hybridity. They also took different stands on the scalability of their temporal registers and reflected whether they were strictly related to African communities and African landscapes or whether they had a planetary scope.

In his contribution, '**Conceptual Decolonization in African Universities: An Imperative for Shaping African Futures**' Martin Ajei further elaborates the quest for a decolonization of African futures. Ajei critically inquires whether there is an 'African futurity' that is distinct from other trajectories of future-making. Ajei cites prominent African scholars who have advocated against such categorization, reasoning that African societies and cultures are too diverse to be homogenized into a single meaningful category and that therefore the idea of an 'African world view' is untenable. There are other authors, though, who argue that such a shared mind-set resulting from a shared history on a shared continent justifies the adoption of categories like 'African futures'. Ajei reconfirms such thinking but asserts that an authentic African perspective on future-making must appreciate the diversity of African traditions and must have a 'genuine concern for promoting the interests of Africa'. With this argument in mind Ajei goes on to explore John Mbiti's theorization of African conceptions and experiences of time, Arjun Appadurai's more recent exegesis of possibilist and probabilistic future-making, and Felwine Sarr's ideas on *Afrotopia*. Sarr's constructivist approach to culture that precludes any form of essentialism is the vehicle for realizing *Afrotopia* in Ajei's analysis. In essence Sarr's and Appadurai's approaches share their impetus in future-making as a self-defined act. Ajei finally argues that universities have to play

an important role in this context through critically reflecting upon, reconstructing, and appropriating African resources for reconstruction.

Part 2 Technologies, Imaginaries and Practices of Future-Making in Rural Africa

Astrid Matejcek, Rupert Neuhöfer, Julian Rochlitz, and Julia Verne, in “**In technology we trust**”: **Digital Visions and their Implications for Agricultural Futures in Eastern Africa**’, focus on mobile information and communications technologies in projects of agricultural development. Mobile-phone applications, the use of tablets, and different sensor technologies are increasingly featured in agricultural agendas to advance climate resilience and agricultural productivity. Matejcek *et al.* argue that this profound emphasis on smart high-tech solutions in agriculture, a ‘technological fix’, currently characterizes much of the thinking on agricultural futures. The authors draw on document analysis, ethnographic research at agricultural fairs and conferences, and online courses, as well as on empirical research with farmers in Kenya and Tanzania. They show how the gospel of smart agricultural futures becomes inscribed into agricultural programs despite the lack of proof that such smart input is factually improving climate preparedness and agricultural productivity.

The ethnographic effort of this contribution opens a window into how agricultural futures are currently being made by a group of experts and with apparently very little recourse to direct project evaluation. The overt concern for technological improvement, and the reification of smart technologies via the gathering of immense amounts of data, moves the farmer (and his knowledge) out of the centre of attention as the debate moves from ICT for Development (ICT4D) to Data for Development (Data4D) (see Development Co-Operation Report 2017, Pawelke and Hernandez 2018). Agricultural development is progressively linked to automation, artificial intelligence, and machine learning and the rise and spread of high-tech sensor technologies. The success rate of such projects often lags far behind well-published expectations. Progressive datafication, gamification, and experimentation are lauded as smart approaches to overcome setbacks. The contribution comes to the conclusion, however, that while the technological apparatus is developing rapidly, surprisingly little actual agricultural development takes place on the ground.

Eric M. Kioko, Detlef Müller-Mahn, and Maxmillian J. Chuhila, in ‘**Green Futures and National Planning: Rhetoric and Reality in Rural East Africa**’, focus on another register of agricultural future-making: green agricultural futures increasingly matter in national planning across the continent. The ‘greening’ of agriculture promises to bring about a transition to more sustainable and better climate-adapted forms of agricultural production. This shift is meant to satisfy the food needs of a rapidly growing population and

to produce food or other plant-related products for export. Green agriculture comes with the promise of harmonizing environmental, economic, and social challenges. Kioko and colleagues analyse policy discourses and documents in Kenya and Tanzania in order to understand the rationale and rhetoric behind green agricultural policies. The chapter takes inspiration from the ‘travelling model’ approach, which scrutinizes how development blueprints designed by international experts for global application are translated into regional settings.

Rhetoric and development practice in both East African countries are deeply entrenched by ideas of ‘greening’ agriculture. This is well reflected in national plans such as Kenya’s Vision 2030, Tanzania’s Vision 2025, and the newly prepared Tanzanian Vision 2050. The analysis by Kioko *et al.* shows how concepts of ‘green agriculture’ are framed, negotiated, and brought to the local level. In contrast to the rhetoric, green development is not at all socially embedded or sustainable; nor is it a peaceful transition towards more sustainable land use, but rather a conflict-ridden and at times even violent expansion of neoliberal economies. Often small-holders are further marginalized in grand projects that come with the pretense of a greener agricultural future. Often ‘green’ projects promulgate technical solutions and relegate social considerations to the back bench. The analysis shows that there are pertinent differences though: while the Kenyan government strove to find inroads into a greener agriculture, the Tanzanian government under Magufuli only paid lip service to green ideologies and clearly favoured an industry-led growth despite a greening rhetoric.

Javier Revilla Diez, Peter Dannenberg, Carolin Hulke, Linus Kalvelage, Gideon Tups, and Richard Mbunda, in ‘**The Growth-Corridor Vision and its Realities – Regional Economic Impacts in Namibia and Tanzania**’, analyse a third approach to modernizing rural Africa: growth corridors connecting rural hinterlands with towns and export hubs are a planning device that has gained immense prominence in recent years. Revilla Diez and colleagues emphasize the colonial ancestry of corridor tropes. Already during early colonial days the idea that corridors could support and accelerate agricultural growth inspired planners, and early railroads and roads often serviced emergent corridors. Corridors were tightly coupled with major investments in railroad and road infrastructure in the early 20th century. At the beginning of the 21st century such corridors are often joint projects of private and public stakeholders, while the overall aim to accelerate economic growth by investing in large-scale and wide-spanning infrastructure resembles colonial imaginaries. Revilla Diez and colleagues reflect upon the visions and realities of growth corridors in Namibia, Zambia, and Tanzania. Their results show that the tangible infrastructural results (e.g. roads, bridges) and also the less tangible ones (e.g. flow of finance) have major effects on rural livelihoods and economies in regions

adjoining these corridors. These effects, however, are not always those that had been anticipated, and Revilla Diez and colleagues successfully also pinpoint the dark sides of corridor development resulting in increasing inequality and at times ending in infrastructural failure.

Clemens Greiner, Britta Klagge, Kennedy Mkutu, and Frankline Ndi, in their contribution **‘The Making of an Energy Resource Periphery? Scalar Politics, Frontier Dynamics, and Future-Making in Northern Kenya’**, take us to another complex of future-making strategies: extractivist and energy-producing technologies shape socio-economic developments in many rural African landscapes. Oil and gas exploration and extraction at the fringes of the Kalahari, in Uganda and Kenya, the tapping of geothermal energy as well as wind energy in Kenya and possibly soon in neighbouring countries are of major significance in understanding the development of an energy resource periphery. Additionally, explorations into and mining of minerals facilitating the energy transition (e.g. copper, lithium, rare earths) are significantly contributing to competition over control, quests for participation, and demands for the acknowledgment of rural stakeholders. Greiner and colleagues focus on Kenya’s semi-arid north, which has seen a great number of such projects arising over the past 20 years. A formerly marginalized region was rapidly transformed into a resource frontier, as capitalist and state actors penetrated this former periphery with the aim of exploiting its mineral and energy resources. The contribution focusses on the Lake Turkana Wind Power (LTWP) project, the expansion of geothermal energy production, and the extraction of crude oil in the region. Like the development corridors treated by Revilla Diez and colleagues, these extractivist projects bring substantial ancillary infrastructures into landscapes that were dominated by pastoralists until very recently. However, it is not only infrastructure, roads, and water supplies that are brought to this frontier, but also promises of future development, modernity, and prosperity. While Greiner *et al.* focus on northern Kenya, their theorizing of resource peripheries and capitalist/extractivist frontiers allows for a wider continental and global perspective.

Hauke Vehrs’ and Michael Bollig’s contribution, **‘Africa, The Conservation Continent? Future-Making and the Globalization of Wildlife Protection’**, sets a counterpoint to the two foregoing contributions. As much as corridor development and resource extractivism shape Africa’s rural futures in the more immediate future, large-scale conservation projects do so as well. In their contribution they examine past and present conservation visions. Taking theoretical inspiration from Sheila Jasanoff’s and Jens Beckert’s ideas on the intricate relation between future-making agendas and political action, Vehrs and Bollig contemplate the history of conservation visions and their impact on contemporary conservation planning in and for rural Africa. They highlight

how projections of pending ecological doom have influenced conservation agendas. Vehrs and Bollig allege that doom scenarios have often been used to legitimize the extension of conservation measures and as a counterpoint project conservation futures that are based on sociotechnical imaginaries in Jasanoff's sense. They describe in some detail how such doom scenarios are generated and how the positive conservation futures were and are established in the 1960s, the 1990s, and in the present. The contribution, which begins with a quote from a recent publication by Desalegn, H., Du Toit, M., and Mills, G. (2020) – 'Why Africa must become the Conservation Continent' – emphasizes that next to future agendas based on extractivist ideas, on visions of smart agriculture, and on rapidly unfolding value chains, the vision of rural Africa as conservation landscape has become an immensely powerful trope.

Part 3 For Prayer, Profit and Persistence – Aspirations and Hope in the Future-Making in Rural Africa

The four contributions to Part 3 of this edited volume address specific strategies of future-making. While trajectories portrayed in Part 2 directly envision futures for rural areas, contributions in this part of our book look at aspirations and future-making from a more individualistic and agent-based approach. The rapid adoption of mobile money, future-oriented religious imaginaries and practices, and the adoption of insurances to level-out future risks are important.

Maggie Opondo, Gilbert Ouma, Anne Oketch, and Dennis Ong'ech, in '**Gendered African Futures and Extreme Climate Events in Turkana, Kenya**', analyse the effects of future climate changes on social dynamics. In order to do so they go to one of the most arid stretches of land in Eastern Africa, Turkana County in North-western Kenya. There the impacts of a changing climate are clearly felt. While climate statistics leave little doubt that temperatures have already increased significantly, projections of precipitation are more ambiguous. Overall, there seems to be more rainfall. However, this rainfall comes at an increasingly unpredictable rate. Severe interannual drought is followed by flood years, and both result in catastrophes for local pastoralists. The greatly varying levels of precipitation as well as the increasingly uncertain onset of rains contribute to an increasing vulnerability of the pastoral system. Considerable numbers of herders have already been relegated to relief camps after they have lost their herds. The formerly highly specialized and resilient pastoral economy evidences significant ruptures. In many households it is no longer livestock that makes for the mainstay of the family, but alternative strategies like charcoal-burning and craft production. In fact, pastoralism has become a prerogative of well-established households headed by senior men,

while female-headed households or the households of younger herders struggle to maintain a foothold in pastoralism.

Opondo and colleagues clearly show how pre-existing inequalities are deepened and how intersectional disadvantaging, e.g. of women from poor households, of elderly people of non-pastoral households, or of young people is accelerated by climatic imponderability. The search for adaptive strategies results in a widening of societal cleavages rather than in broad societal transformation. The contribution by Opondo *et al.* offers important empirical material on heightened social tensions brought about by climate stress. Also, intercommunity raiding is linked to drought and flood effects when in a frantic effort herders try to compensate for losses with aggressive strategies against their neighbours. Opondo *et al.* single out some effective strategies for limiting the worst effects of droughts and floods. The paragraphs outlining these interventions show how different forms of and technologies for projecting future states of the environment may become salient parts of rural life at the edge of habitable parts of the earth.

Prince Guma, in **'Reimagining Africa's Rural Futures in the Age of Mobile Money'**, focusses on the emergence and dispersal of mobile-phone-based products and services. Guma's empirical data originates from rural southern Uganda. His contribution asks how mobile money and mobile telephony in general are shaping the social life of groups and communities most at risk of rural poverty and social exclusion, and what forms of identity, community, and lifestyle are emerging as a consequence. One of the significant aspects of mobile-phone-based communication is its capacity to encompass even remote rural areas for financial inclusion, allowing, for example, access to formal savings products, free balance checking and transfer of money from one person to another, paying for products, cashing-out of money, and formal money transfers. The mobile phone has become an essential tool and precondition to enable rural dwellers to participate in these flows of finances and goods. Indeed, mobile phones have been advertised as vital for maintaining urban-rural linkages and fostering solidarity and communing across urban-rural boundaries, with marketing slogans like 'send money home'.

Guma presents impressive figures that frame his observations from southern Uganda. Of nearly 1.75 billion mobile-money-related accounts globally as of 2024, 656 million are in Africa, and East Africa has over 372 million subscribers. Within two decades East Africa has experienced one of the highest levels of mobile-money adoption globally, and rural Africans have been driving this dynamic. Guma's contribution focusses on mobile phones and related technologies and their impact on rural identities and the understanding of progressively deterritorialized communities that increasingly rely on and manage cross-scalar and rural-urban linkages, and smartphones are

an essential technology in this process. In an intriguing way, Guma enquires into how the delimitation of spatial distance of various actors as a factor for marginalization impacts their social dynamics and cultural processes. Places, landscapes, and communities once perceived as marginal and inaccessible are now very well-connected to events taking place in the metropolises of the globe, to fashion trends and music styles, and also to global challenges such as market failures and multiple crises brought about by environmental change.

Dorothea Schulz and Uroš Kovač take us to a remote rural setting in northern Kenya. In their contribution, **“Joining the church” as a Form of Future-Making? Il Chamus Christians’ Futural Orientations in Baringo County, Northern Kenya**, they look at a very different, faith-based approach to future-making. They reflect upon narratives of conversion to Christianity among the Il Chamus in Kenya’s Baringo County and interpret them as a distinct approach to future-making. Local believers connect their transition towards Christianity with future material and physical improvement and communal moral advancement. The analysis focusses on devoted Christians in that community: pastors, catechists, and those who describe themselves as ‘dedicated Christians’, all of whom are associated with the African Inland Church (AIC).

The believers Schulz and Kovač worked with often depicted their conversion in spatial terms as a journey that moved them in spatiotemporal terms away from the sociocultural world of their upbringing. Schulz and Kovač do well to interpret local idioms of conversion and future-making in an ethnographically dense way, and the reader gets a good idea of how believers frame the juncture between conversion and future-making. In a metaphorical way they create distance between what they depict as their origins and what they hope to be their futures. Conversion, adherence to a new gospel, and belonging to a new church community enables and empowers them as cultural engineers that prune out ‘traditional’ cultural elements that they identify as benign and compatible with their new religious orientation. It is specifically the claims to a peculiar ethnicity and the status of an indigenous community that has ancestral rights in the landscapes around that those who convert seek to retain and to combine with their new faith. Schulz and Kovač mainly work with biographical accounts to foreground aspirations and hopes of single actors. They distinguish between two kinds of futural orientation: while one is grounded in the aspirations of the here-and-now and circles around hopes for material and physical advancement, the second centres on the aftermath. Schulz and Kovač argue that the actors they work with are peculiar as they clearly emphasize immediate material and physical improvement over concerns for an afterlife and hopes for salvation.

In their contribution, ‘**The Politics of Anticipation in East Africa’s Rangelands**’, Ian Scoones, Tahira Shariff Mohamed, and Masresha Tayes analyse how uncertain futures are framed and negotiated through a range of technical and political practices in pastoral areas of southern Ethiopia and northern Kenya. There they focus on a newly introduced index-based livestock insurance and on established internal strategies of risk management. Very different politics and techniques of assessing future risks form the basis of each approach. While the index-based livestock-insurance scheme is based on an individualized, market-based approach which heavily relies on scientific forecasting and early-warning systems, the second approach rests on a collective, redistributive approach that is deeply rooted in social networks, moral obligations, and values of sharing and is grounded in the local knowledge on the specific vulnerability of pastoral economies. While the formal insurance is based on the assumption that futures can be marketized and risk can be contained and managed through apt insurances, the second approach emphasizes uncertainty and the non-controllability of outcomes and the significance of collective action to adapt to such circumstances.

Insurance schemes are being tested across rural Africa, and their significance may become even more salient when climate shocks become more frequent. The commodification of risk buffering through commercial insurances comes with the promise that the effects of climatic perturbations may become controllable. Scoones and colleagues emphasize that this approach is beset with numerous challenges: often the capacity to calculate risk via remotely sensed images is grossly hampered by land grabs, market crises, or violent conflicts. Scoones *et al.* do not, however, assert that index-based insurances are insignificant in the pastoral contexts they studied. They do, however, show that it is habitually the asset-rich herd-owners who are the major beneficiaries, whereas the majority of herd-owners do not gain more security and resilience from such schemes. For them social relationships embedded in networks of kinship and friendship are essential social institutions to adapt to present and future climatic stress.

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PART 1

BRINGING FUTURE-MAKING
INTO PERSPECTIVE – AFRICAN
PERSPECTIVES AND THE
DECOLONIAL TURN

Black/African Imaginations of the Future¹

SABELO J. NDLOVU-GATSHENI

Introduction

‘what we cannot imagine cannot come into being’

(bell hooks 2013: 59).

*‘The world of tomorrow is in gestation within the world of today,
and its signs are decipherable within the present’*

(Felwine Sarr 2020).

African utopic registers of the future are basically ‘freedom dreams’, to invoke Robin D. G. Kelley (2003), encapsulating a spirit of reworlding from the African vantage point. They exist as imaginary sketches of a desired and envisioned future. They have concrete historical, epistemological, and material departure points. They are inspired by struggles for change as well as purposeful strivings for reworlding away from the colonial model of the world. bell hooks (2000: 110) posited that ‘To be truly visionary we have to root our imagination in our concrete reality while simultaneously imaging possibilities beyond that reality.’ This logic is also expressed by Amilcar Cabral (1979: 44) who urged Africans ‘To start out from the reality of our land – to be realists.’

Felwine Sarr (2020: xii) in his advancement of Afrotopia as an African utopic register of the future argued that ‘Africa lacks an autonomous and endogenous teleonomy resulting from its own reflection on its present situation, fate, and the futures it will provide for itself’ (Sarr 2020: xii). The reality, however, is that Africa might be experiencing an overload of utopic registers of the future/metaphors for the future, although all of them are limited and snared by colonality of time. The explanation for this overload of utopic registers is a reality that was clearly captured by Pal Ahluwalia and Paul Nursery-Bray (1997: 2):

¹ A version of this chapter was published in *Utopian Studies*, 36(2), 2025.

Nowhere else was oppression so comprehensive, so savage. African history was denied or appropriated; African culture belittled, the status and standing of Africans as human beings was called into question.

Ali A. Mazrui (2001: 107) also highlighted the uniqueness of African experience of humiliation and dehumanization:

[N]o other groups were subjected to such large-scale indignities as *enslavement* for several centuries in their millions as the Africans were. [...]. No other groups experienced to the same extent such indignities as *lynching*, systematic *segregation*, and well-planned *apartheid* as the Africans were. It is against this background that Africa's dignitarian impulse was stimulated. A deep-seated African rebellion against humiliation was aroused. [...]. The deep-seated African struggle has been a quest for dignity – human and racial.

The 'dignitarian impulse' reverberates at the centre of the utopic registers of the future. Edward Wilmot Blyden and the Negritude theorists thought of it in terms of 'African personality', which had to be reconstructed (Frenkel 1974). Thus, besides the current utopic registers such as Afrotopia, Afropolitanism, and African Renaissance, there are many other long-standing metaphors for the future that emerged from the battlefields and struggles against racism, enslavement, colonialism, and racial capitalism. These include Ethiopianism, Negritude, Pan-Africanism, Black Consciousness, Afrocentricity, African socialism, African humanism, and others. These utopic registers were and are informed by a combination of Black radical thought, struggles for decolonization, and the search of identity and freedom, within a world that is considered to be anti-African/anti-Black (Sithole 2020).

The question is how autonomous were and are these 'freedom dreams' from the coloniality of time. Perhaps this is where to start engagements and debates on African futures. Because of the subjection of Africans and Blacks to inimical imperial designs of racism, enslavement, colonialism, racial capitalism, and heteronormative patriarchy, their utopic registers of the future are framed by the spirit of resistance, gestures into the past as a future which was denied and denigrated, as well as a drive to reworld the world in favour of those that Frantz Fanon (1968) termed the 'wretched of the earth'. This is so also because African conceptions of time tended to follow the cosmological rhythms of regularity, predictability, patterns, and repetition. African conceptions of time in their terrestrial/earthly sphere tended not only to reflect the cosmic rhythms but were also distinctively circular rather than linear temporalities (Nyathi, 31 January 2022). Some may not understand such African notions of time as 'tomorrow is yesterday' (*kusasa kuyizolo*), which highlight a non-linear conception of time.

Coloniality of time

In modern conceptions of time, the future is a temporality just like the past and the present. There is linearity in this conception of time. This linearity emerges from Euromodernity and its colonization of time. At its centre is what is called 'historicism' as an imperial technology of subjecting the world to a singular 'global historical time' but at the same time denying those who were said to have been 'discovered', known as natives and Blacks, a dignified place in that time scale (Chakrabarty 2000: 7). At the centre of historicism are the notions of progress, civilization, modernization, development, and emancipation. Europe positioned itself as ahead of the rest in time to the extent that 'historical time' was posited as a measurement of 'cultural distance' between Europe and the rest (Chakrabarty 2000: 7). The issue of European colonization of time and the invention of the modern world is explained by Ali A. Mazrui (2005: 75) in this way:

First and foremost was the triumph of European cartography and mapmaking in the scientific and intellectual history of the world. If Africa invented *man* in places like Olduvai Gorge, and the Semites invented *God* in Jerusalem, Mt. Sinai, and Mecca, Europe invented the *world*, at the Greenwich Meridian. It was Europeans who named all the great continents of the world, all the great oceans, many of the great rivers and lakes and most of the countries. Europe *positioned* the world so that we think of Europe as being above Africa rather than below in the cosmos. Europe *timed* the world so that the Greenwich meridian chimed the universal hour.

How did Europe colonize time? As defined by Gurminder K. Bhambra (2007), Euromodernity constituted itself through two means. The first was 'rupture'. The 'rupture' materialized through colonization of time and breaking it into premodern and modern temporalities (Bhambra 2007: 1). Europeans (colonialists) claimed and monopolized 'modern' for themselves. The rest of the people, who were said to have been 'discovered', were relegated to 'pre-modern', 'pre-history', 'pre-political', and even 'pre-human'. This meant denial of a present and a future. Even the past was considered to be 'ahistory', if not 'prehistory'. In this way, the targets of racism, enslavement, and colonialism were in the words of Dipesh Chakrabarty (2000: 8) frozen into the 'waiting room of history'.

The second was 'difference'. The paradigm of difference unfolded through social classification and hierarchization of human populations in accordance with race (Maldonado-Torres 2007). This required further explanation, as there was a colonization of being human itself, and the invention of differential ontological densities, with some people kicked out of the human family and

others designated as sub-humans. The consequence is what Johannes Fabian (1983) termed ‘denial of coevalness’ and Boaventura de Sousa Santos (2007) termed the ‘impossibility of co-presence’.

Lewis R. Gordon (2021) identified four modes of denying a present and a future to those people designated as natives and Blacks, as part of invisibilizing them. The first mode was that of racialization, which reproduced those deemed to be Black and native as an unwanted quantity and a problem to be solved. Genocide was one such solution. Enslavement was another. Colonization was also part of a solution called the ‘civilizing mission’. Reinvention of those deemed to be natives and Blacks as hewers of wood and drawers of water sealed the colonial and racial capitalist deal.

The second was temporalization into an unchanging past – a mode called primitivism and premodernism. Gordon (2021: 23) explained that ‘This makes their continued presence as a ghostly one’ with the white settlers monopolizing a present and a future ‘devoid of indigenous people’. The third mode was that of rendering those designated as Black and Indigenous speechless/voiceless. This entailed ignoring whatever they said. Gayatri Spivak’s (1988) widely referenced question of whether the subaltern can speak spoke to this existential-linguistic cul-de-sac in which the oppressed and dominated found themselves. The fourth mode was epistemological. This materialized in terms of what has been termed ‘epistemic injustice’ or ‘epistemic closure’ (Fricker 2007, Santos 2014, Ndlovu-Gatsheni 2018, Gordon 2021). Therefore, the African and Black utopic registers of the future cannot make sense outside a comprehension of this context of dismemberment and dehumanization involving theft of the African past, present, and future. African knowledge, as the key basis of African imaginations of the future, was subjected to epistemicides. A colonial library was created to control African imaginations of their past, present, and future.

Colonial library and colonization of the African future

To many epistemologists, knowledge creates reality. This means that to imagine a future, knowledge plays a central role. But as noted by Valentin-Yves Mudimbe (1988, 1994) the African experience of colonialism left them with what he termed a ‘colonial library’. This colonial library is a central leitmotif of the colonial cognitive empire, which operated through invasion of the African mental universe so as to impose Eurocentric knowledge systems. What emerged as modern disciplines such as social science and humanities became driven by Eurocentric thought. This is why Chakrabarty (2000: 5) posited that:

This engagement with European thought is also called forth by the fact that today the so-called European intellectual tradition is the only one alive in the social science departments of most, if not all, modern universities. I use the word 'alive' in a particular sense. It is only within some very particular traditions of thinking that we treat fundamental thinkers who are long dead and gone not only as people belonging to their own times but also as though they were our own contemporaries.

At the centre of the colonial library are discourses for domination and miseducation as part of colonial governmentality. This is why Mudimbe (1973: 57) explained that 'The West created the savage in order to civilize it, it created the concept of underdeveloped in order to develop, the concept of the primitive in order to form ethnology'. The consequences included changing the psyche and consciousness of Africans, particularly the African intellectuals, and making them purveyors of Eurocentric thought. Learning became a form of radical and aggressive assimilation of Eurocentric thought and knowledge. In the process African systems of meaning-making, dreaming, and imagining the future became replaced by meaning and categories from Europe. Ngũgĩ wa Thiong'o (1986: 3) deployed the metaphor of a cultural bomb that is detonated at the centre of the African mental universe to capture the lasting implications of the colonial library:

The effect of the cultural bomb is to annihilate a people's belief in their names, in their languages, in their environment, in their heritage of struggle, in their unity, in their capacities and ultimately in themselves. It makes them see their past as one wasteland of non-achievement and it makes them want to identify with that which is furthest removed from themselves; for instance, with other people's languages rather than their own. It makes them identify with that which is decadent and reactionary, all those forces which would stop their own springs of life. It even plants serious doubts about the moral rightness of struggle. Possibilities of triumph or victory are seen as remote, ridiculous dreams. The intended results are despair, despondency and a collective death-wish.

Taking all this into consideration, Ngũgĩ wa Thiong'o doubted the possibility of an African Renaissance succeeding as a utopic register of Afromodernity. This is how he expressed his doubts:

Is an African renaissance possible when we keepers of memory have to work outside our own linguistic memory? And within the prisonhouse of European linguistic memory? Often, drawing from our own experiences and history to enrich the already rich European memory? If we think of the intelligentsia as generals in the intellectual army of Africa including footsoldiers, can we expect this army to conquer when its generals are

captured and held prisoner? And it is worse when they revel in their fate as captives.’ (Ngũgĩ wa Thiong’o 2009: 121).

The major point from Ngũgĩ wa Thiong’o’s analysis is that of how African minds have been colonized and how this colonization of the mind inhibits authentic dreams of the future, the worst case being that of an African who ends up even dreaming in colonial language.

Tormenting existential questions driving African futures

Like all human beings, Africans, since the emergence of human species from such places at the Olduvai Gorge in Tanzania, have been inventing and reinventing their lives and creating their futures. They have been inventors of tools (from stone to iron), domesticating animals, building institutions and making majestic civilizations like that of Kongo, Egypt, Songhai Mali, Great Zimbabwe, and Ghana. All this was possible when Africans were free from coloniality. The unfolding of Euromodernity constituted by coloniality inhibited African freedom and as noted above forced them into a new time in which they were considered to be frozen into an unchanging past, if not in a ‘dark continent’ where there was not even history prior to arrival of the white colonialists. Remember Georg Hegel’s dismissal of Africa and Africans as ‘difficult to comprehend’, not fitting into a ‘principle which naturally accompanies all our ideas – the category of Universality’, that ‘consciousness has not yet attained of any substantial objective existence – as for example, God, or law’, and concluding that:

The Negro [...] exhibits the natural man in his completely wild and untamed state. We must lay aside all thought of reverence and morality – all that we call feeling – if we would rightly comprehend him. There is nothing harmonious with humanity to be found in this type of character. (Hegel 1956: 93).

Hegel failed to understand African people and resorted to dismissing them and writing them out of human history. Hugh Trevor-Roper (1965) also denied that Africans had a history, highlighting that they were enveloped in a mantle of darkness and concluding that darkness was not a subject of history. Thus, for a people with a denied humanity and stolen history their struggles and dreams reflected this existential quandary invented for them. It is not surprising that they posed what Aime Cesaire termed ‘tormenting questions’ as they imagined the future:

- Who am I? What are we?
- Who are we in the in this anti-Black world?
- How are we to recover our denied history?
- What does it feel like to be defined as a problem?
- What is liberation and freedom?
- How can we take charge of our future?

Tendayi Sithole (2020) reflected on these questions as he grappled with the prospects of life itself for those people who were designated as Black, especially how they thought about their condition and their presence in an anti-Black world where they are dismembered. Dismemberment is as a dehumanizing imperial ‘act of absolute social engineering’ as ‘the foundation, fuel, and consequence of Europe’s capitalist modernity’ began with continues to haunt African people on the continent and in the African Diaspora (Ngũgĩ wa Thiong’o 2009: 5). At its centre was what Nelson Maldonado-Torres (2007) termed ‘coloniality of being’ – a foundational dismemberment which produced Whiteness as a badge of supremacy and Blackness as a sign of being deficient. The second process of dismemberment Ngũgĩ wa Thiong’o (2009: 5) described as occurring when ‘the African personhood was divided into two halves: the continent and its diaspora’, as Africans were captured and reduced to commodities and sold in the market during the mercantile period of unfolding racial capitalism.

The third was the scrambling for and partitioning of Africa legitimized by the Berlin Conference of 1884–1885, in which the continent was ‘literally fragmented and reconstituted [...] into British, French, Portuguese, German, Belgian, and Spanish Africa’. (Ngũgĩ wa Thiong’o 1986: 12). Those African people who were forcibly transported as cargo across the Atlantic Ocean suffered a further dismemberment: each person was ‘now separated not only from his[her] continent and his[her] labour but also from his[her] very sovereign being’ (Ngũgĩ wa Thiong’o 2009: 6). The expropriation of land by colonial governments and the resultant dispossession of the Africans/Blacks of their means of livelihood, especially in white settler colonies of the United States of America, Canada, Australia, New Zealand, Kenya, Algeria, South Africa, and Zimbabwe, among others, constituted another form of dismemberment. These dismemberments provoked the decolonial initiatives and struggles for ‘re-membering’ as a key leitmotif of reworlding from the Global South in general and Africa in particular.

Therefore, for any deeper understanding of African utopic registers of the future, there is need for an appreciation of how these existential-cum-epistemic questions shaped the consciousness of those people rendered as Black and native, as well as how they informed their imaginations of the future. Such

intellectual-cum-political-cum-ideological formations as the Black tradition emerged from this context of multiple denials of life chances. Black radical tradition informed decolonization struggles that were themselves about the recovery of the denied past, the making of the present, and the invention of a future. This takes us to the identified Black/African utopic registers of the future, with racism, enslavement, colonialism, racial capitalism, and heteronormative patriarchy constituting the oppression from which to liberate African and Black people. Liberation and freedom existed and continue to exist as future horizons.

African/Black utopic registers of the future

By utopic registers of the future I mean named imaginations and visions of a future that emerged as Black, African, and Indigenous people fought for a present and a future. Ngũgĩ wa Thiong'o (2009) depicted them as 're-membling' initiatives. They carry a spirit of reworlding from the underside of modernity. They carry the aspirations of an oppressed people. These utopic registers of the future are never perfect, as they are born from the battlefields of history and struggles.

The Black radical tradition is better understood as the epistemic framework underpinning the politics, initiatives, and struggles for reworlding from the Global South. Robinson revealed how at the centre of the Black radical tradition subsisted various intellectual-cum-cultural and ideological-political productions and grammars of liberation, including a particular version of Marxism known as 'Black Marxism' (see Robinson 1983). Black radical tradition exists as a long-standing overarching grammar of liberation consisting of epistemic, existential, political, ethical, and intellectual formations and initiatives made of diverse but related responses, critiques, and subversion of Eurocentric epistemology and opposed to the colonizer's model of the world. Lewis R. Gordon (2009) defined it as the 'Africana philosophy of existence' / 'Existential Africana' – a reference to 'the set of questions raised by the historical project of conquest and colonization that has emerged since 1492 and the subsequent struggles for emancipation that continue to this day'.

Garveyism and Diasporic imaginations

In the Diaspora, one finds Marcus Mosiah Garvey as one of the earliest advocates of mobilizing Black people for purposes of re-membling them into a transcendental identity called Africans covering the continent and the Diaspora. His political imagination was fired up by the injustices 'done to my race because it was black'; hence, he posed soul-searching questions:

‘Where is the black man’s government? Where is his King and his kingdom? Where is his President, his country, and his ambassador, his army, his navy, his men of big affairs? I could not find them, and then I declared I will help to make them’ (Blaisdell 2004: 3). Garveyism as a reworlding process was complicated and multi-faceted. Burden-Stelly understood Garveyism as ‘a radical articulation of nationalist and separatist ideology that critique the ways in which white supremacy as technology of coloniality, national exclusion, and European imperialism precluded Black people from claiming their place in modern civilization’ (Burden-Stelly 2016: 5).

Garvey’s strong belief in race purity and his agitation for a separate and parallel Afro-modernity able to overcome imposed racial disabilities became the most controversial part of his philosophy of re-membering. Garvey strongly articulated the idea of a great Africa. To him, it was ‘by accident and unfavourable circumstances, the Negro lost hold of the glorious civilization that he once dispensed, and in the process of time reverted into savagery, and subsequently became a slave, and even to those who he once enslaved, yet it does not follow that the Negro must always remain backward’ (Garvey 1913: 22).

In Garvey’s thinking, Black people had to be autonomous in a double sense. First, they must free themselves from backwardness. Second, Africans have to rescue themselves from European ‘unrighteousness’ (Garvey 1913: 29). Politically, the realization of African freedom would be symbolized by the establishment of ‘a black imperial state’ capable of rivalling and combating European imperialism. To this trans-territorial Black imperial state would belong all Black people scattered all over the world in unity. To achieve this objective, Garvey strongly believed that violence would be the means of claiming the ‘Motherland’ (Jones 2013: 39).

In terms of location of the Black republic, Africa as the original site of civilization was the only space with the potential to offer real and genuine freedom and self-determination. This is what Garvey, as quoted in Blaisdell (2004: 29), said: ‘The Seat of Empire Northward Moves was true to history and poetry during the period of Negro decline. But its Northern limit has been reached and with the revival of Negro activity its path has again turned South. For Empire has not only a Seat but a Home and Home is in Africa’. Garvey was critical of those who wasted time on pursuing the objective of integration in Europe, America, and the West Indies, claiming that such a belief was focused on an impossible goal. To him, white people would never concede equal rights to Blacks.

To realize his dream, Garvey evolved an economic strategy to realize what one can call ‘black capitalism’. This involved laying a strong and autonomous economic foundation. The Black Star Line Corporation founded in 1919 was the

vehicle to realize economic autonomy as a basis for political autonomy. Blacks dispersed across the world would be connected through business and trade, so that they might be counted within the mercantile and commercial world. The Black Star venture collapsed, and Garvey considered the dirty hands of European governments who were offended and opposed to the spirit of Black racial consciousness and big American companies opposed to Negro entrepreneurship to be responsible (Garvey 1947: 140). Garveyism as a reworlding idea became a 'travelling' theory of liberation. It reached all the corners of Africa and beyond. It laid a strong foundation for Black consciousness and pan-Africanism. It galvanized other re-membering initiatives.

Negritude and the remaking of African personality

Colonialism attacked African personality and dismembered it. Therefore, Edward Wilmot Blyden was among the early advocates of reworlding from the vantage point of Black experience and African location. To him, African personality needed to be reconstituted after centuries of dismemberment. Blyden (1888: 276) emphasized the distinctiveness of Africans from Europeans, arguing that the 'Negro' is not the 'European in embryo'. Like many other early builders of the Black world, Blyden was caught up in what Valentin Y. Mudimbe (1988: 98) described as 'the ambiguities of an ideological alternative'.

Blyden's work laid a foundation for Negritude because he propounded a revolution that emphasized African values, cultures, and languages without necessarily discarding the realities of the mixing of cultures. In this sense Blyden was also the earliest advocate of the 'triple heritage' thesis, which is about how to reworld Africa as a synthesis of indigenous African heritage, Islamic heritage, and European Christian heritage (Blyden 1888). If one is to summarize Blyden's ideas, they fall into five broad categories.

The first was his strong concern about the common destiny of the Negro race. He shared this concern with Garvey and many other early advocates of Black liberation. The second concern was about the uniqueness of the thinking (mentalities) of the African, and this notion indeed made Blyden a father of Negritude. The third concern was about how religion was an intrinsic part of life for African people. The fourth idea propounded by Blyden was that of the inherent socialist character of African societies. This thinking is a precursor of the ideologies of African socialism that dominated in the 1960s and 1970s pushed forward by such African leaders as Julius Nyerere, Leopold Sedar, and many others. The fifth idea from Blyden's writings was that of 'Africa for Africans', which directly resonated with Garveyist pan-Africanism that privileged Africa as the only seat of African self-determination and self-rule.

The Negritude idea was picked up and further elaborated by Leopold Sedar Senghor and Aime Césaire. Senghor explained the circumstances that led him and Césaire to launch the movement noting that between 1933 and 1945 Black students based in France ‘were plunged into panic-stricken despair’ as the promised horizon of assimilation was blocked and ‘the colonizers were justifying our political and economic dependence by the theory of the *tabula rasa*’, and this provoked them; they believed that in order ‘to establish an effective revolution, our revolution, we had first to divest ourselves of our borrowed attire – that of assimilation – and assert our being, that is to say our negritude’. (Senghor in Ahluwalia 2001: 54).

It is clear from Senghor’s words that the Negritude Movement was part of the broader search for identity within a context of dismemberment. Cheikh Thiam (2014) correctly understood Negritude as part of an early expression of an ‘Afri-centred’ conception of the human that was consistently critical of Western universalization of humanity that however excluded those with black pigmentation. Negritude was propelled by what Césaire termed the ‘tormenting questions, who am I? Who are we? What are we in this world?’ (Thiam 2014: 2).

To Gary Wilder (2015: 8), Negritude was not a simple ‘affirmative theory of Africanness’, but rather was also ‘a critical theory of modernity’. Senghor articulated that Negritude began as a search for the ‘return to [our] sources and the discovery of the black Grail’ (ghetto-Negritude, as he termed it), tainted by racism, before moving forward to ‘open-Negritude’ (planetary Negritude) (Senghor in Wilder 2015: 52). Building on ‘open-Negritude’, Senghor understood ‘decolonization as a process of global restructuring wherein the fate of humanity and the future of the world were at stake’ (Wilder 2015: 59).

Senghor remained critical of the Cartesian notion of being that privileged reason as a marker of being human. He said this notion reproduced the human as a ‘reasonable animal’ and he proceeded to spell out the gift of Negritude: ‘to remake the unity of man and the World; to link flesh to spirit, man to his fellow man, the pebble to God’ (Senghor in Wilder 2015: 61). Senghor envisaged a postcolonial world as ‘a global *mélange* to which each civilization contributed its most distinctive and fully realized attributes’ (Wilder 2015: 61). Senghor favoured a democratic union of people irrespective of colour rather than territorial political independence, and this led to him being criticized as an apologist of colonialism in some quarters. Senghor, just like Fanon and Césaire, emphasized human liberation over sovereignty of states: ‘*Man* remains our ultimate concern, our *measure*’ (Senghor in Wilder 2015: 224).

For this to occur, he argued that ‘we must all kill the piece of him [Hitler] that lives within us’ (Senghor in Wilder 2015: 143). To Senghor, for a new humanism to emerge, there was need for a double decolonization involving

colonizers abandoning their ‘superiority complex’ so as to recognize the colonized as equal human beings, and the colonized rising up from their imposed ‘inferiority complex’ (Senghor in Wilder 2015: 162). These ideas led Senghor (in Wilder 2015: 162) to present the idea of decolonization as ‘a dialogical and dialectical “gift between partners”’. More profoundly, Senghor understood decolonization as a third revolution ranged against ‘capitalist and communist materialisms’, and aimed at bringing the moral and religious to the centre of the world while at the same time enabling ‘peoples of colour’ to play their role and ‘contribute to the construction of the new planetary civilization’ (Senghor in Wilder 2015: 228).

Senghor (in Wilder 2015: 149) pushed for a combination of Negritude (old African collectivism) with Socialism (scientific socialism) as building blocks in the creation of a better world (better than the colonially created one) and also ‘better than our world before European conquest’. Consequently, Senghor also became a critic of both colonialism and territorial nationalism as he strongly believed that the unitary state was now historically outmoded. He pushed for a common French citizenship not as an ethnicity or race but as a political product of empirical realities of encounters and interactions. His warning to fellow Africans was that even European nations were gravitating towards a larger pan-European community (European Union) and that small colonies would never be ‘truly independent’; rather, independence would be ‘a poison gift’ (Senghor in Wilder 2015: 152).

Senghor (in Wilder 2015: 161) envisaged a world that was not wholly African or European: ‘it will be a Métis world’. Senghor’s version of decolonization did not envision the attainment of national status in the form of independent Senegal as the heaven of liberation, as he predicted that small independent states were bound to fail (Wilder 2015: 244). This argument by Senghor regarding the limits of territorial nationalism highlighted the planetary quality of his reworlding initiatives. Besides Negritude there was pan-Africanism.

Pan-Africanism and vision 2063

If European men set out, in Westphalia in 1648, in Vienna in 1815, in Berlin in 1884, in Versailles in 1919, in Potsdam in 1945, as well as in other conferences, to make the world in their favour and advantage, those people who had been designated as Black also began to meet in 1900 in what became known as Pan-African Congresses to contest European worlding of the world and projecting how they could reworld the world from the perspectives of what Fanon (1968) termed ‘the wretched of the Earth’. It is within this context that pan-Africanism emerged from Black consciousness not just as a utopic register but as a major and influential ideology of reworlding initiative. It is not

surprising that pan-Africanism first emerged in the Diaspora, because that is where deep dismemberment and rootlessness was felt. Today pan-Africanism is driven by the African Union from the continent of Africa.

In 1897 as the colonialists were busy with finalization of the partitioning of Africa among themselves, Henry William Sylvester from the West Indies formed the African Association in London, and three years later, in 1900, planned and hosted the first Pan-African Congress in London (Adejumobi 2001). For the first time, Black people who were on the receiving end of racism and colonialism gathered at the centre of a leading colonial power (British empire) to discuss issues such as the enslavement of Black people, the socio-economic and political conditions of Blacks in the Diaspora, the question of independent nations governed by Black people (Haiti, Liberia, and Ethiopia) as well as the problems of imperialism (Adejumobi 2001). The result of this first Pan-African Congress was that William E. B. Dubois, the shining intellectual light of Black radical tradition and indefatigable pan-Africanist, drafted an address 'To the Nations of the World' highlighting the problems of colonialism and demanding protections for the rights and dignity of Black people (Killingray 2011: 348).

Five more Pan-African Congresses were organized by Du Bois between 1919 and 1945, with the most significant one being that held in Manchester in the United Kingdom in 1945, as it attracted African leaders who were to fight against colonialism in Africa such as Kwame Nkrumah and Jomo Kenyatta. It marked a shift from demanding reforms of colonialism to the open demand for decolonization (Adejumobi 2001). Pan-Africanism intersected with anti-colonial African nationalism to advance a vision of 'world-making after empire' in which Africans re-emerged as a new force united against racism, enslavement, colonialism, imperialism, and underdevelopment (Getachew 2019). Pan-Africanism materialized as a vision of a world inhabited by united, free, and self-determining African people. Unity and self-reliance remain key aspects of the task of propelling Africa into a becoming a strong power in world affairs. It is an ongoing vision which is conjoined with African Renaissance in the African Union (AU)'s Agenda 2063. Here it becomes evident that the future of Africa has to be approached as a purposeful process consisting of seven aspirations:

- Prosperity underpinned by economic growth and sustainable development;
- Pan-African unity informed by ideals of Pan-Africanism and African Renaissance;
- Good governance based on democracy, human rights, justice and rule of law;

- Peace and security;
- Pan-African cultural unity based on common heritage. Shared values and ethics;
- People-driven development predicated on self-reliance and all African potentialities;
- A strong player in global affairs in partnership with others (African Union 2013).

Africa is here approached as a process in itself – that is, an ongoing invention, construction and elaboration by Africans themselves, confirming Kwame Nkrumah’s idea of Africa as born in him rather than him born in Africa. This takes us to the last part, which is focused on what are taken as latter-day African utopic visions, namely Afrotopia, Afropolitanism, globalectics, and feminism (we should all be feminists).

Against defuturing: Contemporary utopic registers of the future

These four African utopic registers, namely Afrotopia, Afropolitanism, globalectics, and feminism, are advanced by leading African intellectuals, and they appear as carryovers from the early African utopic registers that emerged from the time of anti-racism, anti-enslavement, anti-colonialism, anti-imperialism, anti-capitalism, and anti-heteronormative patriarchal sexism. Afrotopia is advanced by Felwine Sarr (2020). Afropolitanism is a gift from Achille Mbembe (2021). Globalectics is a vision of Ngũgĩ wa Thiong’o (2012). Chimamanda Ngozi Adiche (2014) gifted the world with her ‘we should all be feminists’ vision of the future.

These African utopic registers of the future emerged within a context in which previous visions of the future were somehow exhausted or ran out of steam. It was within this context that Michael Neocosmos (2016: xiii) posed a soul-searching question about the African future: ‘How are we to begin to think of human emancipation in Africa today after the collapse of the Marxist, the Third World nationalist as well as the neoliberal visions of freedom?’ Not only was Africa said to be experiencing exhaustion of visions of the future, the whole world was said to have fallen into what Tony Fry (1999) termed ‘defuturing’ – that is, a vanishing of futures of human and non-humans resulting in a condition of futureless ontology. The question is, can Africa and Africans afford to fall into the dystopia of ‘defuturing?’ The response comes from Lewis R. Gordon (2021: 127), who posited that:

It struck me that there is a dialectical aspect of living or being located at the underside. If we look at history, those from the underside usually hold the key to the future. Those on the surface imagine themselves

to be where humanity is going. When they fall, they often watch their world serving as the outline for another to come, and it is often one with which they do not identify.

Perhaps it is because of this reality that from the stable of African intellectuals, African utopic registers of the future continued to be produced. The Hegelian idea of an Africa that did not belong to the world still provoked Mbembe and Sarah Balakrishnan (2016: 28) to introduce Afropolitanism, with Mbembe insisting that ‘there is no world without Africa and there is no Africa that is not part of it’. The premium of Mbembe’s reflections is on the position of Africa and Africans in the global world informed by his experiences from his location in South Africa. The second instalment of Mbembe is that ‘Africa has to become its own centre. It has to become its own force. Not as a way of separating itself from the rest of the world, but as a precondition for it to exercise its weight among other forces in the world’ (Mbembe & Balakrishnan 2016: 30).

While Mbembe thinks that Afropolitanism is decoupled from pan-Africanism, these two ideas of repositioning Africa in the world and making sure that Africa is a force among other forces in the world is traceable to pan-Africanism. Pan-Africanism was always a planetary force based on an interpretation of African and Black people’s position in the world. Yes, Afropolitanism is worlds apart from Afrocentrism in that it acknowledges the plurality of being African and tries to transcend race as a definer of Africanity. In Afropolitanism, there is emphasis on movement, mobility, and circulation as forms of enrichment of Afropolitan practices. Yes, taking entanglements into account in the reworlding of Africa is crucial, but to attain Afropolitanism there is still need to continue the struggles for a world that is not hierarchized racially or in terms of gender. Afropolitanism is not yet clear on how to deal with the paradigm of difference, which continues to re-enact and reproduce racism, patriarchy and other politics of difference and alterity.

The next utopic register is called Afrotopia. Its starting point is a rethinking of Africa beyond the ‘fog of treacherous clichés, stereotypes, and pseudo-certitudes’ (Sarr 2020: ix). The second intervention is to decouple African thinking from the dominant episteme which prioritizes the ‘Western dream exported the world over’ (Sarr 2020: xiii). Sarr (2020: xiv) explained that ‘Afrotopos is this site of another Africa, one whose arrival we should expedite in order to realize its brilliant potentials’, and added that ‘Afrotopia is an active utopia that takes as its task the cultivation of vast and open spaces of bountiful possibles in order to help them flourish’. A key element of Afrotopia is to rescue Africa and Africans from ‘a teleology with universal pretensions’. This speaks directly to how to deal with the problem of coloniality of time,

to which Africans have been subjected. Sarr (2020: xii) suggests that Africa has to establish its own ‘autonomous and endogenous teleonomy’. What is emphasized in Afrotopia is the importance of Africa’s ‘own socioculture’ as the basis for its self-improvement freed from the colonial library.

Regarding modernity, Sarr pushed for an autonomous and endogenous modernity anchored culturally but also domesticating technologies from other places for its own brevity. Decolonization of knowledge is presented as an essential prerequisite for the emergence of autonomous and endogenous African modernity with decolonized universities playing a leading role in ‘resolving the contradictions within African society and [...] taking up its own part in the creation of new social forms’ (Sarr 2020: 90). In short, through the gift of Afrotopia, Sarr is inviting Africans to dream as Africans and take charge of their destiny unencumbered by mimicry. Finally, Sarr also emerged as a leading advocate in the politics of restitution – that is, the return of looted and stolen African cultural and ritual artefacts.

The next contemporary utopic register comes from Adichie, who in her 2012 TEDxEuston talk invited humanity to embrace feminism and all people to become feminists. This is an important intervention in a world where heteronormative patriarchal sexism continues to reproduce inequalities between genders. Drawing from various experiences of discrimination in Nigeria and other parts of the world, Adichie made a very compelling case for the world as whole to embrace feminism, and she defined a feminist as ‘a man or woman who says, “Yes, there’s a problem with gender as it is today and we must fix it, we must do better”. All of us, women and men, must do better’ (Adichie 2014: 20).

The last contemporary African utopic register is known as globalectics, a term coined by Ngũgĩ wa Thiong’o (2012). Like Mbembe, Ngũgĩ wa Thiong’o (2012: 8) wished to break from ‘straightjackets [*sic*] of nationalism’. This is how Ngũgĩ wa Thiong’o explained globalectics, as a utopic register of the future:

Globalectics is derived from the shape of the globe. On its surface, there is no one center; any point is equally a center. As for the internal centre of the globe, all points on the surface are equidistant to [*sic*] it – like the spokes of a bicycle wheel that meet at the hub. Globalectics combines the global and the dialectical to describe a mutually affecting dialogue, or multi-logue, in the phenomena of nature and nurture in a global space that’s rapidly transcending that of the artificially bounded, as nation and region. The global is that which humans in spaceships or on the international space station see: the dialectical is the internal dynamics that they do not see. Globalectics embraces wholeness, interconnectedness, equality of potentiality of parts, tension, and motion. It is a way of

thinking and relating to the world, particularly in the era of globalism and globalization. (Ngũgĩ wa Thiong'o 2012: 8).

Conclusion

Africa is rich with utopic registers of the future. It would seem that there were others out there who were worried about the proliferation of African utopic registers and criticized the utopic registers of the future as underpinned by elements of essentialism. Chinua Achebe responded to them very well:

You have all heard of African personality; of African democracy, of the African way to socialism, of negritude, and so on. They are all props we fashioned at different times to help us get on our feet again. Once we are up we shall not need any of them (Achebe in Ahluwalia 2001: 26).

It seems that at this time Africa is not yet up and running on its own terms, hence the proliferation of African utopic registers of the future. They emerge from a context and they capture aspirations of a people who are struggling to emerge from the underside of Euromodernity and are eager to recapture and shape their own destinies and invent their own futures. Nothing short of a completion of the incomplete decolonization will turn African utopic registers of the future into reality. This is why such movements as Rhodes Must Fall and Black Lives Matter have received popular support among African and Black circles, as they are seen as carrying on the decolonization struggles for re-existence.

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Conceptual Decolonization in African Universities: An Imperative for Shaping African Futures

MARTIN AJEI

Introduction: Africa and futures

African Futures in the Making, the volume in which this chapter appears, aims to engage how African futures are ‘made’, in the sense of how they are envisioned, contested, negotiated, and shaped, etc. This quest to explore the ‘how’ of African futures imposes a need to clarify, at the onset, the notion ‘African futures’, which occurs in the titles of the volume and of this chapter. The phrase implies that ‘African’ and ‘non-African’ futures may be differentiated. This possibility of decoupling the terms raises intriguing questions. Can there be a positive definition of ‘African’ in the context of constructing futures, with meaningful coherence? If so, what factors would determine the inclusion of an idea as ‘African’, and others as ‘non-African’? Would such determination be by formal or by content-related factors?¹ Let us suppose a policy, for instance, by which a term will be formally determined as African if it is espoused or written by Africans; and content-defined if it is judged to support African interests and values. Would a policy written by wealthy Africans who hardly represent impoverished Africans then be ‘African’? Conversely, if content determines its African-ness, could World Bank officials who do not hail from the continent produce ‘African’ policy? Further complexities emerge when one considers which among diverse values and interests within Africa (e.g. across gender, class, sexuality, etc.) should count as African. By what means, and by whom, would we reconcile the contradictory claims and values of these Africans in a policy defined as African by virtue of its content?

¹ I am grateful to the reviewer of the initial draft of this chapter by the editors of this volume for illuminating this point, and for pointing to many of the questions that follow in this paragraph.

The foregoing questions animated debates on the existence or otherwise of African philosophy in the 1980s and 1990s. Two perspectives from this debate may guide the discussion of what constitutes African in ‘African futurity’. One view challenged the soundness of the predicate *African* in ‘African philosophy’ on grounds that it reifies the diversity of African cultures and their modes of thought. Appiah, for instance, argues: ‘the peoples of Africa have a good deal less culturally in common than is usually assumed’, therefore ‘the presupposition that there is, even at quite a high level of abstraction, an African world view’ is unacceptable (Appiah 1992: 17). Several philosophers disagree with this view and assert that formal criteria, such as geography, suffice to define a work as African. A notable example of this formality is Abraham’s book, *The Mind of Africa*, whose title and conclusions are premised on a presumptively shared mindset, with ‘a certain “smell”’ by which African reactions ‘in describable situations could be fully predicted’ (Abraham 2015: 3). More recently, and arguing from a phenomenological perspective, Olivier has affirmed that there is something that it is like to be African – just as there is something that it is like to be German or Chinese – and that this ‘something’ is a culturally distinctive consciousness of self (Olivier 2014: 102).

A more nuanced approach, like Gyekye’s, asserts that a philosophical thought or work is African that reflects on issues with theoretical or conceptual underpinnings in the culture and experience of African peoples (Gyekye 1996: 72, 211). Such adoption of a joint formal/content-determination approach can be taken to be stipulating three conditions for a work to qualify as African philosophy. First, the author must be African, presumably through birth or acquisition of citizenship. Additionally, the work must deliberate, or be premised, on the culture or experience of Africans, or both. Finally, it must display a philosophical character.² These Gyekye-inspired conditions have been considered as overly stringent by content-determination advocates. For instance, Wiredu assigns a legitimate claim to membership of the African philosophical corpus to a work that ‘exhibits elements of the African tradition’, irrespective of its source (Wiredu 2004: 206). I build on these earlier discussions by advancing the claim that the specificity of the notion ‘African’ cannot usefully be determined by a dichotomy between formal and content-oriented definitions. Self-identification with Africa of an author of an idea that is prevalent in sub-Saharan Africa relative to other geographical locations is significant. But this is insufficient. What suffices, in my view, is for that idea to both exhibit appreciation of elements of African traditions and to show, by

² This means that its subject matter must not be merely narrated and interpreted but should include an evaluative component conducted with argumentation.

argument and reference to historical and current phenomena, genuine concern for promoting the interests of Africa.

Also, the notion of African futurity in the titles of book and chapter calls attention to problems associated with the concept of time. One reason for this is Mbiti's remarkable metaphysical claim that time in African cultures is conceived as a property of events in the past, the present and the immediate future (Mbiti 1971: 17). Difficulties that beset this perspective arise in all claims regarding the nature of time when considered in terms of tense categories (Mumford 2012: 107-121). But of immediate interest to us is Mbiti's suggestion of specific African conceptions and experiences of time, particularly the purposeful element in his idea of the immediate future, and therefore of African conceptualizations of the future. In my view, his restriction of futuristic concerns to those nearest in forthcoming time is questionable, as evidence abounds to suggest that normative discussion of futures – i.e. different opportunities for upcoming developments – in African cultures proceed from commonsensical intuitions of long-term perspective, expressed in the languages and practices of these cultures.³ These expressions suggest that there is something that *must be* that conditions our thoughts and conduct in the present with regard to opportunities, that this thing that *must be*, is the future, and that in contrast to Mbiti's view, a long-term perspective of it is conceivable. In my view, these African conceptions of time make room for specific African conceptualizations of the futures, which proceed from the assumption that history can disclose to us meaning in the present. Philosophically, this assumption imposes a responsibility on agents to see in the conditions and facts of current African life moments for crucial action, and to seize opportunities in the present to influence what the future becomes. This manner, in which I have chosen to approach the subject of African futures, raises political and ethical questions: What does the African past reveal and what does it hide? What opportunities are indicated by inferring from events in African history, and what obligations do we have in this moment to seek to understand these indicators and deploy them to act to influence how futures emerge and evolve on the continent?

This chapter defends the thesis that tertiary education in Africa, conducted by means of a decolonization index, would have good prospects to respond adequately to the existential conditions of Africans and harness opportunities in a manner that can lift Africa from the margins of global wealth and influence. I therefore propose such an index for guiding curricula in African universities. Much justification for this claim lies in theoretical frameworks and histories of conceptualizing African futures. Accordingly, in the next section I discuss

³ Examples of such practices and expressions abound in the two cultures – Guans who inhabit the Akwapim Hills, and the Akan, of Ghana – that I am most familiar with.

one such framework, and turn to conceptualizers of futures in post-colonial Africa, and how the decolonization index will correct their shortcomings, in the section that follows the next.

Culture and the conundrum of African Futures

The framework I examine now is Arjun Appadurai's 'future as a cultural fact', a notion he advances in his articulation of an anthropology of the future. In *The Future as Cultural Fact*, Appadurai assesses the role of cultural systems – as combinations of norms, dispositions, practices, and histories – in framing practical paths to the achievement of suitable ends. Central to his ideas in this work is that activated social energy is a vital resource for producing 'the future as a specific cultural form' (Appadurai 2013: 286). The specificity of a cultural form, on his thinking, requires a society's engagement of social, political, and ethical concerns in a society with the combined vigour of imagination, anticipation, and aspiration, along with the affective states of its members, in negotiating their future. Understanding the future as a cultural fact, then, entails employing culture as 'a map for negotiating and shaping new futures' (Appadurai 2013: 288). In Appadurai's opinion, people have a moral obligation to aspire to defeat what traps and limits their capacity to create a future free of avoidable confinements. This 'capacity to aspire is a cultural capacity, in the sense that its strength and dynamism are forged within local systems of value, meaning, communication, and dissent', as these systems derive 'their force from configurations of value, ethics, and religion that are strikingly local and variable' (Appadurai 2013: 290).

Another pivotal idea for my thesis rests in Appadurai's distinction between a 'future of probabilities' and a 'future of possibilities'. The former is subject to calculation and forecast, whereas the latter is largely unknown and open. These categories of futures underlie two ethical frameworks that struggle for futures construction in a globalized world. The 'ethics of probability' represents conceptions and activities that flow from liberal values, particularly those that are 'typically tied up with amoral forms of global capital, corrupt states, and privatized adventurism' (Appadurai 2013: 295). Conversely, values espoused by the 'ethics of possibility' are less economically grounded, and could increase the horizons of hope, expand equity in the capacity to aspire, and widen the field of creative and critical citizenship.

The foregoing suggests that the future is a cultural fact for Appadurai because, first, culture is an inevitable fact for humans as social beings. Accordingly, human futures cannot unfurl independently of culture. Human futures are at once culturally infused constructions, and prospective realities to be fashioned for cultural benefit from the furnace – at least partly – of

cultural resources. Accordingly, the future as a cultural fact cannot be the same everywhere. Hence the idea of African futures seems sensible. A second inferable claim from Apparudai's conclusions is that any conception of the future as a cultural fact is a shared act: those who do so see their lives as intertwined in a conception that binds them to living and progressing together through agreements and disagreements, and this shared conception underlies their motivation for action. Thirdly, I see Apparudai's connection of practice (structural constructions) with possibilities in his conception of the future as a cultural fact to be stressing a particular kind of agency, i.e. the subject of cultural self-definition must be the same as the object defined. This amounts to the idea that self-directed futures must be capable of underlying projects and processes designed to benefit their subject-agent.

Finally, there is little doubt, as will be seen in the next section, that in the construction of African futures, Apparudai's ethical 'possibilities' suffer marginalization in favour of 'probabilities'. This is because fundamental structures and ideals of social institutions, including our constitutions, have colonial foundations. The upshot of this is that the force of Apparudai's 'aspiration', as outlined in the previous paragraph, is overlooked in constructing futures on the continent. The question therefore becomes how futures can be conceptualized in ways that impel a wish to dismantle colonially inspired structures and forge a new order of mentalities that connect practices of aspiration with possibilities that mitigate the excesses and failures of such structures in order to create societies with capacity to respond adequately to the existential conditions in which their citizens function and promote their welfare (Gyekye 1994: 48). Undoubtedly, such futures must be self-conceived and strategies for their attainment self-directed.

A reviewer of this chapter⁴ opines that Appadurai's arguments are mostly about how future *always* is constructed as cultural fact; and that my call for 'decolonizing tertiary education in a manner that accords with pursuing the future as a cultural fact' hardly aligns with this. Accordingly, my use of Appadurai's conception as an 'ideal' merits clarification. I take this critique to be suggesting that Apparudai's conceptualization of the 'fact' which emerges in the future is unalterable given that its antecedent conditions have already been lived. In other words, the future will factually be what it must be, because agency that was exerted in conceptualizing and working towards its presence is unalterable. One can, in retrospect, assess past actions and wish alternative courses had been taken. But arrival points, as the future of those past actions, remain a fact engendered by expired actions. In this account of the future as a cultural fact, the most we can do with unrealized aspirations for the

⁴ The same reviewer mentioned in Footnote 1.

future would be to alter them or wish for them anew. The future appears as a cultural fact that assigns little weight to conduct that obstructs or demotes the 'ought' that was wished for in the future. Such agential deficit in assessing the relationship between current action and futures introduces the risk of placing aspirations on probation forever.

But I am inclined to thinking we can conceive the construction of futures in a manner that sets aside such a deficit and instead announces the possibility of construing in idealistic terms the idea that future *always* appears and is constructed as cultural fact. This latter reading can lead us to aspire to understanding the idea of the future as a *cultural* fact in terms of it responding to our ideals. I wish to inject such a normative dimension into reading Apparudai's concept, in my discussion of decolonizing tertiary education, in a manner that accords with my proposed pursuit of the idea of the future as a cultural fact. By this I mean enacting decolonization strategies in accordance with cherished standards, but not that the outcome of such enactment would constitute a fact that would inevitably occur.

My suggested reading of Apparudai's concept points toward understanding its significance for the agency of cultural resources: the fact that the future depends on action to make it beneficial for human culture. Such a normative interpretation gains credence in the context of Apparudai's connection of practice with possibilities. The introductory section stressed a particular kind of agency in cultural self-definition – that my construal of the future as a cultural fact is contingent on a self-directed conception of the self by an entity that is capable of supporting processes designed to benefit itself. There is good reason in adopting such a normative reading in a discussion of African futures, as much evidence points to Apparudai's ethical 'possibilities' suffering marginalization on the continent in favour of 'probabilities'. I argue in subsequent sections that African assertions of identity and agency in creating futures have failed to achieve desired outcomes for Africans. My reading of Apparudai's concept is thus grounded on the belief that the object of action in constructing futures is to realize wished-for, but not unwanted, futures, as a fact.

Recently, Felwine Sarr has elaborated a particular vision of Africa's future – *Afrotopia*. He defines this as an 'as-yet-inhabited site' which 'nothing insurmountable will prevent' from coming realization (Sarr 2020: 102). *Afrotopia* is, thus, an idea that that requires committed action to shape its inevitable future reality. Culture for Sarr is 'a palimpsest composed of different, superimposed layers, borrowing from a universe of diverse references' (Sarr 2020: 102), that is a required vehicle for realizing *Afrotopia* (Sarr 2020: 51) and the infrastructure of culture should have the capacity to discard a 'selfhood that translates into an inability to think for oneself, [and] to judge and evaluate things on one's own' (Sarr 2020: 62). Thus, realizing Sarr's *Afrotopia* is

contingent on a self-directed process of self-apprehension. If this is so, then *Afrotopia* shares much in common with Apparudai's future as a cultural fact, in as much as it gears toward a process of self-definition intended for self-benefit. Preliminarily, it is worth noting that Sarr's *Afrotopia*, as well as the several African visions to be explicated and assessed in the next section, provide cogent directions for Africa's future. Yet Sarr's and the other visions offer little in terms of concrete conceptual approaches to attaining a normatively interpreted 'future as a cultural fact' for Africa.

Apparudai and Sarr convey visions that can underpin the construction of practical means for bringing about desirable African futures. One such means is a concrete tool – an index for conceptual decolonization of the curriculum and research agendas of tertiary education that serves to shift current understandings and practices of decolonization in African universities and offer actionable metrics for practicing conceptual decolonization in productive research and teaching. But why is decolonization important, and why are universities places where this should be practiced? As Fanon noted, the defining characteristic of colonization is the construction of an imaginary world in which the humanity of the colonized is erased. Hence, deposing such dehumanization and the restoration of the equal humanity of all humans – the task of decolonization – is crucial for African futures. Nkrumah's *Neo-colonialism* describes how remnants of colonial interests endure in African cultural, political, intellectual, social institutions and practices; and how ex-colonial powers exert effort to retain substantive control over African states and their leaders.

Theorists have emphasized how colonialism has unleashed moral and epistemological injury and distortion of the course of modernity on Africa. These injuries are expressed in a loss of fit between prevailing conceptual apparatus and life experience in the post-colony. This lack of fit generates what Jonathan Lear has termed 'conceptual loss' (Lear 2006: 32), in his description of the mental state of the Crow in their effort to come to terms with their lives after the near annihilation of their livelihoods by the European conquest of the Americas. Following Lear, I assert that concepts that had meaningfully ordered African lives lost their applicability under colonial rule, rendering them inapplicable in the post-colony and creating difficulties for Africans to understand the lives they live. (Lear 2006: 62). Akin to conceptual loss, I claim conceptual disorientation to be a phenomenon that describes the overwhelming misfit between the outcome of colonial education and patterns of future-making in post-independence Africa. Such disorientation is consistent with Nkrumah's depiction of the fragmented consciousness of Africans negotiating post-colonial experience by commuting between strands of conflicting Euro-Christian, Islamic and traditional African conceptual systems (Nkrumah 1970: 68–70).

Universities are well placed to correct the historical injustices of colonization through critically appropriating African resources for reconstruction. Such effort, in Wiredu's view, 'implies also that [such reconstructive effort] is one which is conceptually decolonized and decolonizing' (Wiredu 1984: 42). A deconstructive future-making project, then, would seek to reverse the conceptual disorientation that underlies self-estrangement, by negating negative images that humiliate Africans' consciousness. The resulting liberated self becomes invested with renewed motivation and vigour for reconstruction. I consider the decolonization index, as a tool for conceptual decolonization of tertiary education, to be pivotal for African futures construction. By 'conceptual decolonization', I follow Wiredu to mean the avoidance or reversal of unexamined assimilation of non-African thought and practices into the educational framework of African universities (Wiredu 1996: 136).

I indicate in the next section that since the mid-20th century, African scholarship has clarified why self-defined conceptual sovereignty is essential for African futures. Nonetheless, earlier scholarship offers few or no actionable indicators to guide the continent's tertiary institutions as they strive in their tasks as generators of knowledge and educators of a new generation of citizens. Recent events, like the inequalities in the production and allocation of resources to combat the COVID-19 virus, highlight even further the need for African to discard its perennial consumption of conceptual imports and consciously endeavour to train future generations to be conceptually independent. The decolonization index I propose will yield a decolonization ranking generated from an inclusive understanding of the concept and shared goals across the social scientific and humanistic disciplines. Its purpose is to help researchers and teachers to self-examine and transform their practices, and to serve as a tool for holding them accountable. Success in producing such tools, I argue, is a necessary condition for constructing an African future as a cultural fact.

Conceptualizers of African Futures

This section deliberates on post-colonial constructions of African futures and their antecedents from the aftermath of the Second World War. Specifically, I discuss two kinds of questions: one factual and the other, normative. The discussion of the former involves delineating dominant agents of future-making in these periods, and the latter considers the question of whose voices ought to shape those futures. There is good reason to distinguish two categories of actors that have almost exclusively conceived, planned and overseen the

implementation of futures in Africa: African and non-African actors.⁵ Of the latter group, the Bretton Woods institutions have been most influential in envisioning and formulating goals for a desirable life in since the end of WW2. Bretton Woods' conceptions have steadfastly promoted economic progress and idealized forms of the achievements of Western societies as models for Africa's emulation, even though the structural-functionalist theoretical background of their models (So 1990: 18) implies that cherished values of Africa's cultures are eliminable on the path to development (Tipps 1976: 81). The ideals of the Modernization school⁶ and neoliberalism pervade the Structural Adjustment Programs (SAPs) imposed on Africa by Bretton Woods institutions in the 1980s as conditions for concessionary loans and debt-repayment arrangements (Preston 1997: 255); and the Poverty Reduction Strategy (PRSs) introduced by the same institutions in sequel to the SAPs. The failure of these strategies to improve living conditions and free the continent from its age-old debt trap has been retold over and again.

Other models of futures envisioned by external agents and avidly adopted by African countries also deserve mention. These are the Millennium Development Goals and Sustainable Development Goals, largely designed and propagated by UN agencies. The MDGs and SDGs exhibit no difference in *kind* from the Bretton Woods SAPs and PRSs, as they also emanate from structural-functionalist theoretical tenets and orientations of modernization theory. Accordingly, they, like the SAPs and PRSs, adopt a 'one-size-fits-all' approach to constructing African futures that displaces African cultural values.⁷ The MDGs establish 'universally agreed objectives' for tackling human needs (UNDP 2021). The SDGs, likewise, adopt this structural-universalist approach. Further, it is arguable that representation of African thought in formulating the SDGs is negligible, as African representation in the Open Working Groups (OWG) that drafted the Goals cannot, in itself, be taken to translate into inclusion of substantive African content in the Goals.

It is possible to conjecture an innocent arrogation of paternalistic intent in the visions of the above-discussed foreign actors, i.e. their assumption of the role of knowing better the needs of African futures than Africans themselves

⁵ I take the question of what characterizes an African actor as being 'African' to be sufficiently discussed, and a position taken on it, in the introductory section of this chapter.

⁶ A post-WW 2 social scientific perspective which promoted the conception of development as a phased process modeled on the social transformational paths of North America and Western Europe.

⁷ I mean by this that the substance of five of the eight goals (a) are wrongfully assumed to be accessible to universal meaning, and (b) are easily measured by some economic index or the other.

and believing honestly but wrongly that their conceptions and practices *would actually* benefit Africa. But enough time has elapsed, since the SAPs PRSs, to subject such an erroneous mindset to reappraisal given the overwhelming evidence of the damage these actors have visited on progressive African visions of social organization and self-determination. The fact that current visions of Bretton Woods and UN agencies continue their ‘one-size-fits-all’ neoliberal pathways on the continent strengthens the view that these agents may be interested essentially in shaping Africa not for Africans but for other purposes.

Conversely, two groups of African voices can be delineated among leaders in African-future-making: pan-African institutions, and scholars and politicians.⁸ From the beginning of the 20th century, proposals and justifications of future directions of these groups have been premised on retrieval of possessions lost to historical injustices, and sovereignty over that retrieved. The objects of retrieval in the first half of the century tended to be territory and social institutions retrieved from colonial domination, spearheaded by intellectuals-turned-politicians with the backing of wealthy Africans and traditional rulers. This emphasis on ‘seeking first the political kingdom’ in anticipation of ‘all else to be added unto it’ (Nkrumah 2002: 164) has, post-independence, been directed at shaking off continuing foreign economic exploitation, political interference, and cultural dominance. Since the mid-20th century, however, the quest to control the construction of African futures has been expressed in visions of pan-African self-determination. Thus, the Organization of African Unity (OAU) was established in 1963 to eradicate colonialism and neo-colonialism from the continent. It was replaced by the African Union (AU), which adopted the decolonizational aims of its predecessor. Both the OAU and AU initiated policy frameworks with extensive implementation apparatus to promote futuristic and self-determinative visions. An example of this is the New Partnership for Africa’s Development (NEPAD), established in 2001 as the OAU’s main policy framework for an ‘African-owned and African-led’ program of development (NEPAD Secretariat 2001) and the foremost expression in public policy of the ideals and values of an ‘African Renaissance’.⁹ Likewise, the AU inaugurated Agenda 2063 in 2013 as a vehicle

⁸ Although the scholars and politicians overlap at several points, (e.g. Kwame Nkrumah), there is good reason in a nuanced analysis to distinguish them.

⁹ This notion, signified recognition by African several leaders of the need for a coherent continental agenda for addressing Africa’s development challenges at the turn of the millennium. Prominent among these agendas is the synthesis of President Abdoulaye Wade of Senegal’s OMEGA Plan and the Millennium Action Plan of President Thabo Mbeki of South Africa, into the New African Initiative (NAI), which was inaugurated in July 2001 and re-named NEPAD in October 2001.

for implementing the visions of NEPAD and a blueprint for transforming Africa for the next 50 years (African Union 2013).

Aside from these pan-African institutional frameworks, futuristic proposals have been extensively discussed by African scholars. Long before Mbeki's talk of an African Renaissance, Diop envisioned a renascent Africa premised on retrieving the intellectual heritage of Africa. Such retrieval will serve to integrate heritage into contemporary thought and practice and provide inspiration for self-development (Diop 1987: 118). Nkrumah's vision coincides with Diop's and Mbeki's at multiple points. In *Consciencism*, he emphasizes the integrity of a self-written history for 'the new African renaissance', and for such history to 'become a pointer at the ideology which should guide and direct African reconstruction' (Nkrumah 1970: 63). One feature of heritage that Nkrumah distinguishes, unambiguously, as useful for progressive future-making is the communalist values of traditional society, 'crystallized in its humanism and in its reconciliation of individual advancement with group welfare' (Nkrumah 1967).

As sequel to the foregoing discussion, I wish to now pursue the question of voices that ought to shape African futures. It is difficult to find moral justification for the future-making of the Bretton Woods institutions in Africa. I have indicated elsewhere that it is reasonable to question the authenticity of their intention to serve Africa's progress. This is not only because the visions they espouse are not African-defined (Ajei 2022: 4–5); their strategies, sustained as they are by Modernization and neoliberal theoretic foundations, have failed to improve living conditions and free the continent from dependency. And proceeding from the assumption that self-defined ideals of an entity must be necessarily involved in envisaging possible futures for that entity, it can be argued that the neoliberal African institutions fare worse, morally, as future-making voices. NEPAD fails this test woefully: of its 15 'flagship programs' only one highlights African cultural values as a resource for mobilizing human energies toward achieving its goals. I have argued elsewhere that the negligible uptake in policy of substantive African knowledge and values by NEPAD and Agenda 2063 disregards a core orientation of African reconstructive ideals (Ajei 2022: 5–6). These considerations raise questions about their status as dependable voices for constructing African futures.

Structural and moral tenets of a decolonization index

Ideals propagated by the Bretton Woods institutions and discussed by future-makers inspired by modernization theory may be adjudged as hypocritical if they simultaneously insist on respect for various worldviews and yet draw up objectives and programs for 'sustainable development' that override

indigenous African experience and knowledge. The conviction that they are indeed hypocritical intensifies with diagnoses that can hardly escape notice in the foregoing overview of agency in African future-making. One such is that inspirational African voices and foreign articulators have consistently pulled in different directions; and another is that extensive theorizing of decolonization in Africa has come with sparse proposals for its enactment. Additionally, the voices of rural Africa that are predominantly non-commercial farmers and African youth have hardly featured at the table of future-formation. This does not mean that young and rural Africans lack concerns for their future or platforms for expressing these concerns. I mean, rather, that the youth and rural folk exert negligible influence over institutions and structures that draft and oversee future-formation policy. And worse than the conceivable hypocrisy alluded to, is the injustice of placing the aspirations of young and rural Africans on probation forever. I maintain that a focus on research and curricula in African universities would serve as a good avenue to mitigate this injustice; and that my proposed toolkit for decolonizing tertiary education is pivotal for such mitigation, and a morally significant solution to these diagnoses.

But why is decolonizing tertiary education morally significant? A response to this question may be approached from the ends of education. There is near-universal agreement that formal education¹⁰ is meant to empower its beneficiaries. Often, the goal of formal education claims to provide equal and objective conditions for people to acquire knowledge and ability for self-elevation and contribution to social progress. On this understanding, formal education empowers people 'to respond adequately to the existential conditions under which they live'. But the impression cannot be avoided, on minimum scrutiny, that the foundations and structure of tertiary teaching and learning in post-independence Africa seem to negate this often-supposed goal. Why so? First, such education continues the intention of colonial administration to train, in a European language, a select group as instruments of the ends of formal institutions in the public and private sectors of society. This makes the very ends of education 'foreign to any notion of education for the masses' and renders African beneficiaries misaligned with both their existential problems and technical knowledge bequeathed by their native cultures (Smet 1984: 85-86).

The upshot of such misalignment, in substantive terms, is that tertiary educational policy gives insufficient thought to what educators need to teach to achieve the goals of education stated earlier. Inattention to this need is evidently responsible for the prevailing misfit between the preconceived goal

¹⁰ By which I mean institutionalized instruction and learning in post-colonial polities.

of empowerment and capacities produced by African universities to facilitate the meeting of this goal. Accordingly, tertiary education in Africa may seem to prevent propagation and acquisition of beneficial knowledge and skills to facilitate adequate responses to existential conditions; principally because its goals, methods, and ambience of transmission pay little heed to its cultural environment and life-needs of the majority of Africans.

Yet, pivotal positions of high-authority and policy formulation in the public and private sectors on the continent are, and will continue to be, occupied by university graduates. These reflections place tertiary educators in a morally significant position, i.e. to shape the future by shaping minds for prospective future-making solves the existential problems of the many. Hence the intent and practice of educating these future-makers must be uncompromisingly clear: to diminish the colonial content and elevate positive elements of indigenous intellectual history in their education. The question, then, is: how does one reform tertiary education to enable it to perform intentionally such practices that would enable them to appreciate their future as a cultural fact? Conducting tertiary education by means of a decolonization index, I suggest, would facilitate the achievement of this task and ameliorate the moral wrong of preventing agents from acquiring effective tools for constructing their own futures.

But how may devising such an index be approached? I suggest that we begin by acknowledging notable differences in conceptualizing ‘decoloniality’ among – and even within – humanistic and social scientific disciplines (Taiwo 2022: 6–7, 85). This first step in the process would serve to motivate scholars to generate an intra-and inter-disciplinary understanding of decoloniality in their fields, with emphasis on African needs and scholarship. From this common understanding, a set of core goals that the practice of conceptual decolonization entails in each discipline would have to be formulated. Equitable admission and discussion of diverse situated meanings of ‘concept’ and ‘decolonization’ would be key methodological premises for deliberations in search of consensus in these initial steps. This means that reasoned, situated meanings would have to be admitted as equal candidates in deliberation on what shared goals of decolonization are practicable. From here, the creators of the index would have to review the conceptual map and content of taught courses in the various disciplines to test whether they fit the set of practicable decolonial goals previously defined. The test will suggest what reforms of curricula are needed to produce decolonial minds and avoid inadvertent teaching and research that lubricate colonial engines in their discipline and produce educated citizens that boast little pride in their Africanness.

The next step would be to operationalize the agreed outcomes of curricula reform by designing metrics for an index to rank and measure the performance of teachers and researchers on their conceptual decolonization practice, and

to guide improvement of their performance. Two further steps, to strengthen the monitoring and evaluation of the index for future refinement in the discipline, would be required. These are, first, documentation and analyses of the process to provide the basis for benchmarking the process for replication and refinement;¹¹ and second, creation of a framework to nurture the growth of scholars engaging with the decolonial index, and for producing impactful decolonized research outputs.

Let me now attend to two concerns raised by a reviewer of this chapter (a different reviewer from the one mentioned in Footnote 1). This reviewer wondered whether ranking and measuring teachers' and researchers' performance on the index will not 'invoke fear and diminish freedom for educators to pursue or propose different ideas in higher education learning?' He also thought the index may impose a 'hierarchy of performance on the index', and wondered what such a hierarchy would imply. I think differently from the concern regarding fear and academic freedom. In my view, accessibility to review creates conditions for enlarging academic freedoms and innovative thinking, rather than diminishing them. Such assessment of teaching and research performance is, in fact, central to the growth of academicians and academic institutions. Also, I fail to see how the index would impose a hierarchy in tertiary institutions. I envisage, rather, an impartial and egalitarian positioning of disciplines. As suggested earlier, the first step in formulating the index would be an impartial, intra- and inter-disciplinary discussion of 'concepts' and 'decolonization', with emphasis on African needs and scholarship. If done properly, the common understanding and shared set of goals adopted as premises for the formulation process would strengthen consensus and a feeling of equality rather than imposing disciplinary hierarchies. The task of operationalizing the design, monitoring, and evaluation of the metrics for the index can be undertaken horizontally and vertically, and internally – by colleagues of the same rank and by more senior colleagues. And subsequent analysis to assess benchmarking for refining the index can also be done, largely, internally. The absence of an external assessing agent should strengthen rather than diminish confidence and collegiality.

Pan-African policy brims with thinking on the relationship between education and future-making, and creatively leveraging this will enable continental attention and operationalization needed to enhance the index's success. At the institutional level, the AU leads in specifying these relationships. Toward this, the AU has drafted the *Continental Education Strategy for Africa 2016–2025* (CEPA 16–25) to revitalize education systems and make

¹¹ A tentative title of the volume could be *Conceptual decolonization of African Universities: conceptions, processes and outcomes*.

them responsive to Agenda 2063 and Objective 4 of the SDGs (African Union 2016). CEPA 16–25 seeks to ‘reorient Africa’s education and training systems to meet the knowledge, competencies, skills, innovation and creativity required to nurture African core values and promote sustainable development on the continental levels’ (African Union Commission 2016: 21). But its twelve strategic objectives and implementation strategies are silent with regard to a proposal for decolonizing education and incorporating indigenous knowledge systems in the development of the knowledge and qualification frameworks needed to achieve the AU’s education vision. Decolonization impulses are also absent from the AU’s *Continental Strategy for Technical and Vocational Education and Training*; and from the 10-year *Science, Technology and Innovation Strategy for Africa* (STISA-2024). STISA is particularly relevant for this book’s emphasis on rural Africa, as it identifies Agriculture and Food Security as ‘a necessary foundation to achieve a sustainable African Renaissance’ (African Union 2014: 21). Indeed, eradicating hunger and achieving food security on the continent is the foremost priority of STISA-2024 (African Union 2014: 22).

STISA-2024 is particularly relevant for discussions of future-making and rural Africa, because of its emphasis on eradicating hunger and achieving food security in Africa. The economic significance of food security cannot be understated, for the possibility condition of a functional economy is food to secure the health and strength of a working population. In my view, STISA-2024’s food-security priority should serve as the conceptual platform for the Pan African University (PAU). Although PAU’s strategic objective is to ‘become a leading center of excellence in research and higher education for the advancement of Africa’ (African Union 2020) a decolonial focus is yet absent in its objectives and the thematic programs offered by its four institutes. STISA should guide PAU to devise strategies, inspired by my decolonization index, to ward off what has been recently termed ‘food colonialism’. An important aspect of food colonialism is the scant ownership of the development of seeds that grow staple foods in Africa. The current preponderance of genetically modified (GMO) seeds whose initial harvest yields no seeds for planting in subsequent seasons characterizes food colonialism. Cultivation of GMO seeds over indigenous seeds doesn’t only stamp out seeds that have repeatedly fed Africans. It is also responsible for prospectively eradicating agricultural technologies evolved over centuries of practice, and for progressive impoverishment of non-commercial African farmers. Determinate hybrid seeds are bought for cultivation by farmers every year. In addition to the seeds, pesticides, plant nutrients, and fertilizers must be procured to obtain plentiful yields. Yet, these costs are hardly affordable for rural non-commercial farmers. The increasing stranglehold on the means of food production by mostly

non-African seeds and agrochemical companies promises progressive food colonization and subverts the AU's goal of food security for Africa. It also signifies an impoverished future for rural Africa. The decolonization index can serve as a tool for restructuring agricultural science research and curricula in African universities to halt food colonization on the continent, and to reorient Africa's education and training systems to meet the knowledge, creativity and competencies required to nurture core values for sustainable development.

Conclusion

I have argued that decolonizing tertiary education in a manner that accords with pursuing the future as a cultural fact would work to remedy the moral wrong of preventing people from charting their own futures, and indicated how an index can be fashioned to achieve that goal. The ethical force of defining the ends of one's future, and owning the ability to construct such ends, inheres in the belief that such agency is a 'fundamental human right of decisional representation' (Wiredu 1996: 180). Affording persons and societies such a right should be considered intrinsically morally desirable. However, a question arises in urging such agency: which futures should students of African tertiary institutions be interested in promoting? Is it their own futures or those of their societies? Students and graduates of tertiary institutions have personal projects and ambitions which, as indicated earlier, provide reasons for their pursuit of university education. It is reasonable to suppose, moreover, that the opportunities they expect education to provide for them to pursue such life projects may be radically different, or even at cross-purposes, with opportunities making for desirable futurity for a cultural group – the object of my interpretation of Apparudai's idea of the future as a cultural fact. Might it not be unfair to expect people to work exclusively toward this cultural goal if this latter goal does not naturally coalesce with opportunities for their individual futures? Such an expectation would, surely, subvert their right of decisional representation which my inclinations in this chapter consider as indispensable means to a morally valuable end. Therefore, the question of what a fair expectation of beneficiaries of conceptual decolonization education would be remains to be answered.

My claim that conceptual decolonization is capable of remedying existing moral wrongs of colonization asserts more than the right of decisional representation being an expedient resource for a personal end. The moral solution that I advocate enjoins individuals to take responsibility for constructing desirable futures for their societies. Here, the emphasis tilts less on an individual's right to choose exclusively for her self-interest, and more on activating her moral agency to fulfil her obligation to contribute to her community's progress. My

position accepts that morally worthy individual ends may coincide with, and be realized at the cost of, community goals. But when such a conflict occurs, commitment to the future as a cultural fact prescribes that an individual's advancement be consonant with the good of the social future. To be sure, this position does not require decolonial education to lead its beneficiaries to choose communal futures that are detrimental to their personal projects. Decolonized education for a future as a cultural fact can be elastic enough to avoid making individual ends cogs in the wheel of some immutable historical process that impairs personal goals.¹²

Theoretically, therefore, the enactment of the decolonization index emphasizes the kind of agency promoted in Gyekye's moderate communitarian political framework. This admits individual goals as essential elements of socially transformative processes, subject to the goal-chasers observing the minimum ethical threshold of not exploiting the communal pool of goods for the sake of realizing their individual projects. Particularly, the enactment process must take cognizance of Gyekye's notion of 'the common good', defined as 'the social conditions that will enable each individual to function satisfactorily in a human society' (Gyekye 1997: 64), and its prohibition of social processes and ends that cultivate a 'cramped and shackled self-responding robotically to the ways and demands of the communal structure' (Gyekye 1997: 55–6). Thus, in Gyekye's framework, morally worthy action toward the future as a cultural fact is that performed by an individual conscience imbued with communal ideals. On this view, motivation for contributing to building a common future stems from a personal sense of responsibility rather than a historical imperative.

Without doubt, an essential component of a mindset geared toward constructing the future as a cultural fact, and one capable of competing in global academic culture, must be confidence in highlighting what one's society's intellectual legacy can contribute to global culture. Hence a decolonized curriculum, conducted in the manner and for the purposes I have outlined, can contribute valuable additions to human thought and practice. Beneficiaries of such curricula, confident in how polished knowledge and values from their cultural histories can offer a viable guide to policy for national and international governance, are likely to contribute theoretical directions that do not mimic but attract the admiration of global scholarship.

¹² 'African socialism', espoused by Kwame Nkrumah and Julius Nyerere etc., in the early days of political independence, has been perceived by several scholars as having tilted in this direction of social goals subverting individual ones.

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PART 2

TECHNOLOGIES, IMAGINARIES, AND
PRACTICES OF FUTURE-MAKING IN
RURAL AFRICA

‘In technology we trust’: Digital Visions and their Implications for Agricultural Futures in Eastern Africa

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ROCHLITZ, AND JULIA VERNE

Introduction

In this chapter, set against the backdrop of the history of agricultural modernisation in the Global South and the persistent idea of a ‘technological fix’ (Weinberg 1966) to agricultural problems, we take a critical look at the emerging agricultural futures associated with the current turn to digital technologies. Based on a document analysis as well as ethnographic research at agricultural fairs, conferences, online courses and on farms in Kenya and Tanzania, we show how the (re)emerging belief in technological solutions is inscribed in the design of concrete events and projects. We focus on the implications this has in terms of new actors, new visions, and new mechanisms of agricultural development, contributing to a better understanding of the specific ways in which agricultural futures are currently being transformed, not only by new technologies, but also by changing the character of related development practices.

The rapid spread of mobile information and communication technologies in Africa has spurred new hopes for development. With the ‘African lions going digital’, McKinsey stated in one of its recent reports that, ‘if governments and the private sector continue to build the right foundation, the internet could transform sectors as diverse as agriculture, retail, and health care – and contribute as much as \$300 billion a year to Africa’s GDP by 2025’ (Preface to McKinsey 2013). In general, information and communication technologies (ICTs) have been hailed as the perfect ‘development’ tools as they are relatively cheap in terms of investment and infrastructure – according to the Economist (Feb 7, 2008) they do not require roads, telephone lines, constant power supply or highly trained personnel. This way, countries that have not

built on longer-term, investment-intensive technological infrastructures such as fixed-line telephony are now expected to ‘leapfrog’ (Howard 2007: 151) this phase of development and directly benefit from the speed and extent to which the latest low-cost technologies such as mobile phones are disseminated and enable even very remote rural areas to become ‘information societies’ (Gunasekaran and Harmantzis 2007, Banerjee and Annuar 1999) – which is regarded as a prerequisite for improvements in education, healthcare, greater equality, justice, democracy, and the eradication of hunger (Fong 2009b : 472).

This, however, may sound overly optimistic to most scholars who have engaged with the digital transformation in African countries. In light of numerous examples, scholars have been able to show that the idea, concepts and applications of ICT in ‘development’ projects often do not take the local contexts into account, work from the top down, are poorly financed and are hardly tailored to the needs of the target groups, but follow economic interests and global power structures instead (see e.g. Unwin 2009, Murphy and Carmody 2015). Nevertheless, it is clear that mobile information and communication technologies (ICT) have indeed come to play an important role as a communication tool in everyday life, as well as in attempts to foster ‘development’.

In terms of agricultural development, worldwide, technology firms are currently trying to develop innovative approaches to use technological advances for tackling agricultural challenges and to increase productivity. In the Global Startup Ecosystem Report 2019, agricultural technology has been identified as the sector with one of the highest growth rates, at 8.3 per cent, next to robotics, blockchain technology, artificial intelligence, and big-data analytics. While these startups are mainly situated in North America, Europe, and the Middle East, some of them are also involved in agricultural development projects in Africa, often to test new technologies and collect experiences outside of the fields and greenhouses of high-tech agricultural businesses.

This recent dynamic is embedded in a longer history of agricultural modernization in the Global South. The continuous search for technological solutions targets agricultural development as the backbone of developing countries’ economies – from state-led implementations of massive infrastructures such as plantations, irrigation schemes, and mechanization, e.g. through tractors, to improved and chemical inputs as part of the ‘Green Revolution’, to mobile phone applications, the use of tablets, and various sensor technologies to improve agricultural productivity and resilience also for smallholder farmers (Scott 1998, Coulson 2013, Brockington and Noe 2021). Against the background of this history of agricultural modernisation in the Global South and the persistent idea of a ‘technological fix’ (Weinberg 1966) for agricultural problems, in this chapter we take a critical perspective on the emerging agricultural futures associated with the current turn towards digital technologies.

Drawing on a document analysis as well as ethnographic research at agricultural fairs, conferences, online courses, and on farms in Kenya and Tanzania, we show how the (re)new(ed) belief in a ‘technological fix’ becomes inscribed in the design of concrete events and projects. Focusing on the implications this has with regard to new actors, new visions, and new mechanisms of agricultural development, we thus contribute to a better understanding of the specific ways in which agricultural futures are currently transformed, not just through new technologies but also through a new character of development practice associated with them.

From tractors to mobile phones: The persistent belief in a ‘technological fix’ for African agriculture

Although today’s access to information and the transfer of unprecedented digital technologies to the most remote places is celebrated as revolutionary and ground-breaking (Fong 2009a: 3709–10), the basic assumption of leapfrogging goes back a long way. In this view, social change is technologically induced and certain technologies, and with it certain ‘developmental steps’, could be bypassed. The underlying conception of ‘development’ is that of a linear, incremental and accumulative process, in which the leapfrog allows for a huge step along the path of modernisation, potentially even from a traditional agrarian society to a modern information society (Steinmüller 2001: 194 with reference to Rostow 1962).

As indicated above, agricultural development initiatives have long been characterized by a strong reliance on technological solutions – a phenomenon critically discussed as a ‘technological fix’ (Rosner 2004, Scott 2011). The idea of a ‘technological fix’ is usually associated with Alvin Weinberg, who called himself the ‘king of technological optimists’ (Weinberg 1993: 390). Working as a nuclear physicist and research director at the Oak Ridge National Laboratory during and after the famous Manhattan project (1940–1947),¹ he not only believed in the positive effects of nuclear technologies, but was also convinced, more generally, that technical innovations were superior in addressing social, political, or cultural issues. In his view, to allow for a technological fix social problems would simply need to be reframed as technical ones. Overall, he was convinced of ‘cheap technological fixes as a means to circumvent social problems’ (Weinberg 1965, cited in Johnston 2018: 630).

¹ The Manhattan Project was a research and development initiative led by the USA, the UK and Canada during World War II in which the first nuclear weapons were produced. It was named after its first headquarters in Manhattan and employed more than 130,000 people.

Even at the time Weinberg had many critics. As he notes himself in his memoirs, many of the critics emphasized that ‘technological fixes, because they attack symptoms but don’t root out causes, have unforeseen and deleterious side effects that may be worse than the social problems they were intended to solve’ (Weinberg 1993: 389). In effect, already in the 1970s, the term ‘technological fix’ was increasingly used in a negative way. As Rosner (2004: 3) points out, a ‘technological fix was seen as partial, ineffective, unsuccessful, threatening; one-sided as opposed to holistic; mechanical as opposed to ecological’. And even today, Scott observes it to be ‘a common tactic in public debates over science and technology [...] to dismissively label innovations as mere technological fixes’ (Scott 2011: 207).

Nevertheless, the world today seems ever more dedicated to the advancement of technology, including the hope that this will contribute to solving some of the most urgent social and environmental issues. As Winner observed 35 years ago, ‘in the twentieth century it [has] usually been taken for granted that the only reliable sources for improving the human condition stem from new machines, techniques and chemicals. Even the recurring environmental and social ills have rarely dented this faith’ (Winner 1986: 5). In the context of development, where the traditional areas of health, education, governance, and agriculture are all currently experiencing a digital boost, this certainly remains true.

Looking at the history of agricultural development in particular, it becomes clear that technologies have long been assigned a major role in this (see Cherlet 2014, Fejerskov 2017 for more general historical overviews of technology and development). The ‘fetishization’ of science and technology as modernizing forces goes back to colonial history, as the mission of empires was already based on the transfer of Western knowledge and technologies to bring civilization to backward places and peoples (Schurr and Verne, 2017: 127–8). After the end of the colonial project and of World War II, the so-called ‘Truman Doctrine’, which marked the birth of international ‘development’ cooperation, was still subject to the understanding of ‘development’ through technological assistance. The aim of this doctrine was to train local experts to inject an unconditional belief in the power of Western science and technology into national ideologies (Staples 2006). The Technical Assistance Programs of the United States together with loans from the World Bank were aimed at offering ‘tech-fix’ assistance as a ‘big push’ (Rosenstein-Rodan 1943) to the then so-called underdeveloped countries. Mostly in the form of large infrastructures and machines, such as tractors, this was supposed to strengthen economic activity; social well-being was supposed to follow automatically. The well-known example of the Tanganyika Groundnut Scheme developed

by the British in the late 1940s, however, shows that the projects were not always as successful as hoped for (Wood 1950, Rizzo 2003).

As a result of this and other similarly problematic experiences that followed, the idea of appropriate technologies gained momentum in the 1970's (Schumacher 1973, 1975, Dunn 1979). Fitting well into the turn towards grassroots development initiated in the context of McNamara becoming president of the World Bank in 1968, it was hoped that small-scale technologies that could be maintained by local communities could more efficiently contribute to poverty alleviation. An example of this in the Tanzanian agricultural sector is the power tiller, which is much smaller, more affordable, and more manageable on small field sizes than a tractor and has therefore been promoted and disseminated by the Tanzanian government.

But even allegedly appropriate technologies did not seem to provide satisfying results. Consequently, attention was shifted away from the technology itself towards access to technologies. In agriculture, this is well illustrated in the increasing role assigned to agricultural extension services, for example through the Training and Visit system of the World Bank which ran from 1974 to 1999 (see e.g. Anderson *et al.* 2006). Even though agricultural extension services often went beyond a mere production orientation and involved more general support for farmers including information on credit, market prices, input supplies, nutrition, or family planning, they nevertheless remained heavily reliant on science and technology. Yet, as Anderson *et al.* (2006: 6) have noted, 'research scientists do not have strong incentives to interact with extension'. In combination with the lack of accountability of the extension officers, reflected in 'low-quality and repetitive advice given to farmers' (Anderson *et al.* 2006: 6), weak political commitment and financial unsustainability, critics concluded that the impact of extension was often insignificant.

In the wake of debt crises and IMF structural adjustment programmes during the 1980's, non-governmental organisations (NGOs), multilateral institutions, and philanthropic foundations became key intermediaries for the transfer of Western agricultural knowledge and technologies. They became important promoters and suppliers of technology packages containing hybrid seeds, fertilisers, pesticides, herbicides, and training in agronomic practices based on US agricultural research (Fejerskov 2017: 9–10, Shepherd 2006: 399). The bottom-up 'development' initiative focusing on smallholder farmers under the banner of the Green Revolution for Africa, followed on from activities with a similar name and practices since 1941 in Mexico and later on the Asian continent (Fejerskov 2017: 10). However, driven primarily by the Alliance for a Green Revolution in Africa (AGRA), the Rockefeller and Melinda and Bill Gates Foundations, as well as seed and fertiliser companies, their main aim has been to integrate smallholder farmers into international value chains,

while increasing their dependence on agronomic technologies (Brooks 2021: 7, Fejerskov 2017: 10).

At the end of the 1990s Information and Communication Technologies entered the scene. Since then, ICT4D has become the centre of discussions about the distribution of knowledge, including in agriculture. Mobile phones promise to address previous barriers to agricultural development. They are intended to facilitate communication between researchers, extension officers, and farmers. Farmers can be trained in improved practices, informed about market prices of agricultural inputs, or learn about weather developments and new risks in the face of global change. This is intended to make agricultural practices and markets more precise and economical (Chavula 2014: 281 f). As USAID has argued, ‘the seeds that worked for generations may not be the seeds that work today due to climate change, soil degradation, and water constraints. A farmer now can no longer rely on historical calendars and generational knowledge to drive decisions about purchases, seeds to plant, and mulches and fertilizers to use. He or she needs more timely and responsive support’ (USAID 2018: 3).

The most recent remarkable shift in this regard has been to move the human out of the centre of attention as the debate has moved from ICT for Development (ICT4D) to Data for Development (Data4D) (see e.g. OECD 2017, GIZ 2024). In the latest report by Dalberg Advisors and CTA on the digitization of African agriculture as well as in other recent publications, agricultural development is now increasingly linked to automation, artificial intelligence, and machine learning, leading to the proliferation of sensor technologies.

While this can just be seen as the most recent adjustment in a field that has long been characterized by a strong belief in technological solutions to increase agricultural output, we argue that a closer look at the turn towards ICT4D, Data4D, and D4Ag in particular shows that this shift not only entails an uptake of new technologies but also constitutes a change in character. In the following, we will therefore concentrate on this latest shift and consider the implications of embracing information and communication technologies to foster agricultural development. Indicating both the continuities and the specifics of this phase, we wish to highlight the side-effects of this continued reliance on technologies ‘as [if they were] the best trouble-shooters and problem-solvers for society’ (Weinberg 1966).

How to access smart agriculture empirically

To explore the ways in which information and communication technologies have informed both visions and practices of agricultural development in Eastern Africa, we used three different empirical approaches. Combining

document analysis, event ethnography on agricultural fairs and conferences, and participant observation with NGOs and farmers at the implementation sites of diverse agricultural development projects, we were able to follow the idea of a digital transformation from the reports of major organizations to conference presentations to the ways in which it informs concrete project designs.

Qualitative document analysis

Qualitative document analysis has recently been used to understand shifts in development policy in general (Berndt 2015) and for digital agriculture in Africa in particular (Abdulai 2022).

Here, development policy and related documents are seen to act as hegemonic instruments and mechanisms to create order. Their paradigmatic shifts are being expressed in working papers and reports of major development organizations. In this text, such documents are examined in terms of the visions and future agendas they entail, as these contribute to a legitimizing discourse for influential development actors and technology stakeholders (see Korf 2004).

Given the durability of documents as archives of visions, a qualitative document analysis allows the tracing of discursive patterns and shifts over time. At the same time, when combined with other modes of qualitative inquiry, it may serve as verification of results gained through other methods (Bowen 2009: 28–31).

For our analysis, over 200 documents dealing with the digitization of agriculture in the Global South were collected, covering the time period from 2003, when the first World Summit on the Information Society (WSIS) took place in Geneva, until today (May 2024). These documents included annual reports, conference proceedings, technical briefs, strategy papers, case studies, and press releases, among others. In light of principles of relevance, completeness, balance, and evidence regarding the purpose of the study (see e.g. Bowen 2009: 33, Karpinnen and Moe 2019: 257–9), 35 key publications were identified as relevant in that they represent a comprehensive, well-balanced body of documents dealing with the digital transformation of African agriculture explicitly and stemming from a wide range of actors ranging from non-governmental and international organizations to development agencies, and the private sector.

However, the frameworks and policies formulated in these documents are not to be taken as a given. They arise in the sense of order-creating measures within organizations to clear up internal ambiguities, to be translated into best practices and, in the end, to be adapted and reinterpreted according to successful or failed project outcomes (Korf 2004). Nevertheless, policies stabilize and maintain a rational logic in corporate negotiations on funds

and projects and may thus serve as an interpretative pattern for the norms, administration, and analytics of development (Lewis and Mosse 2006). They describe an ideal world as envisioned by their authors and editors which can rarely be directly translated into practice. They stem from a rather homogeneous group of experts, characterized by similar values and lifestyles and often closely connected through employment circles, digital communication, and certain events (Mosse 2014). It is such events that we incorporated into our research as a complementary qualitative approach.

Event ethnography

In addition to the document analysis, we conducted so-called event ethnographies in two major conferences and one online course dedicated to agricultural development through digital technologies. Comprising presentations, competitive pitches, Q&A sessions, and informal interactions, these events can be seen as settings in which participants ‘embody their professional identities: performing for peers, conveying information, and telling stories’ (Monahan and Fisher 2015: 714). Investigating these settings ethnographically makes it possible to understand how ‘knowledge of practice’ emerges in interactions among professional elites and ‘authorized speakers’ (Baird 2017: 189). Here, we focused on the situated discursive and performative processes that shape a field of practice as well as determine who participates in these processes (Duffy 2014). This allowed us to gain insights into which types of knowledge are treated as legitimate or not, and which ones are ignored altogether (Campbell *et al.* 2014).

In this contribution we focus on two conferences that brought together practitioners and decision-makers from research institutions, government and non-government agencies and the private sector: ‘ICTforAg’, a one-day conference held in Washington, DC, in June 2018 and ‘Decoding the Data Ecosystem: Big Data in Agriculture Convention’, which took place over three days in October 2018 in Nairobi. In addition, we also participated in a four-week online course on agricultural development and technological innovation held by experienced experts and successful entrepreneurs.

At these events, we listened to talks, took part in Q&A sessions, and interacted with other participants, e.g. in group work sessions and breaks. The material we generated from this therefore mainly consists of detailed notes from presentations and podium discussions, as well as notes on forum entries, which made up the discursive space of the online course. Furthermore, we generated field notes with general observations, e.g. on the structure of conferences and how people (inter)act. To complement this, we also used materials such as product brochures, advertised reading materials, and slides and presentation videos.

Given the staged character of presentation and product pitches on such events, it must be noted that these insights are never complete or fully comprehensive. Nonetheless, it is possible to draw conclusions about a professional culture because participants ‘reveal more than they intend, especially at the level of the deep background assumptions that shape what they say and what they do not say, as well as the body displays and interaction rituals they perform’ (Ortner 2010: 220). Furthermore, the experts for ICT4Ag or D4Ag bring their ideas, views and expertise to the places of implementation.

Participant Observation at Project Sites

At events it becomes clear that technical knowledge and information gained through digital technologies is considered more true, objective, and neutral than, and therefore rather superior to, local forms of knowledge. However, the idea that these technologies can help overcome farmers’ ‘knowledge gaps’ often turns out to be more complex than expected. The encounters between development practitioners who bring their visions to the fields and farmers tend to lead to complex processes of negotiation or even neglect (Mosse 2014). Against this backdrop, participant observation of development practice lends itself as an insightful approach, characterised by intensive and prolonged participation (Korf 2004).

Accordingly, we engaged with selected projects in Kenya and Tanzania in which the development and use of digital technologies was a central concern. One of these projects concentrated on an agricultural information service providing the farmers with weather forecasts and agricultural advice in Western Kenya, another one comprised plant clinics for the identification and treatment of pests and diseases. In the rural South of Tanzania, the projects studied range from participatory land-use mapping, to IT innovations to improve agricultural productivity. Most of these projects are still in their pilot stage, which – as we will show – plays a crucial role when examining the character of digital interventions.

These five different project settings all required multi-layered roles on the part of the researcher. While we were collecting observations and participating in the ways in which digital transformations were supposed to be brought about, we sometimes found ourselves in the role of an ‘antagonistic observer’ who, as Lewis poignantly described, is ‘characterised by critical distance and a basic hostility towards both the ideas of development and the motives of those who seek to promote it’ (Lewis 2005: 472). In other situations, we could rather be considered as ‘reluctant observers’ (Lewis 2005, Lewis and Mosse 2006), for example, when uncomfortably sitting next to the development professional who introduces himself as chief at the annual evaluation meeting and poses the question: ‘Will intensified agriculture lead you out of the poverty trap

one day?’ following which farmers were encouraged to answer ‘yes’, ‘no’, or ‘maybe’. However, since it was common to be asked for advice either by the implementing organization or by farmers, each seeking support on how best to deal with the situation, the research also involved more activist and engaged moments.

Of particular interest to us was to experience the technology in action. Living in the villages, interning at the NGOs involved, joining focus groups and workshops, helping farmers on their fields and assisting them in their daily work, we especially focused on the ways in which different actors interact with the technologies, how those technologies are adapted to the specific contexts, and what role they play not just on the projects’ agendas but also in actual doings (Adams and Thompson 2016: 17, 18). Furthermore, we were able to gain insights into the ways in which the digitization of agricultural development was perceived by farmers. As a participant observer in these contexts it becomes irrevocably evident that ‘[m]eanings are contested and organizing space is negotiated at multiple levels, blurring the range of insider/outsider, indigenous/scientific or formal/informal dualisms that are common in both development theory and practice’ (Lewis and Mosse 2006: 10).

As our results show, such a reflexive social scientific approach is crucial to better understand the implications of African agriculture going digital.

Following the ‘digital transformation’ from discourse to performance and practice in the field

Agricultural futures are not just envisioned but also enacted on conference stages, and finally emerge in the attempts to materialize them on the fields. In the following, we will now illustrate the ways in which the current reliance on digital technologies and data for agricultural development impacts on actor constellations, informs visions and changes the character of the interventions themselves through new mechanisms.

New actors: placing technology centre stage

ICT for Agriculture (referred to by practitioners as ICT4Ag) is over. The new age, digitalization for agriculture – D4Ag – has just begun and will lift African agriculture to new levels of productivity, development, and resilience in the light of global climate change. This is the story which ‘The Digitalisation of African Agriculture Report 2018–2019’ of Dalberg Advisors and CTA has in store for us. The European Union-funded report is unprecedented in scope and can be seen as a depiction of the contemporary discourse on the digitalization of African agriculture. Steered by an advisory council consisting of representatives of state agencies as well as philanthropic foundations and tech companies,

the report aims to ‘serve as a barometer for the current state of D4Ag in Africa’ (Dalberg Advisors and CTA 2019: 17). Therefore, the report identifies 390 active digitalization projects (so-called ‘D4Ag solutions’) currently in place on the continent. These solutions form the background of analysis and result from merging data from existing databases with updates from desk research and responses from a specifically designed survey that was issued to the existing projects. An additional 120 interviews with experts from various related fields award the report with further legitimacy and discursive quality. Unsurprisingly, the report identifies great need and potential for digitalization, one key take-away being an estimate that revenues from yet untapped markets for digital agricultural solutions in Africa may likely reach 2.3 billion Euro, while at the same time only six per cent of this potential revenue span has been realized so far (Dalberg Advisors and CTA 2019: 18).

Faced with such prospects, it is mainly well-known international bodies such as the World Bank and the European Commission (EC) or philanthropic organizations like the Bill and Melinda Gates Foundation (BMGF) that have set the agenda dominating the funding landscape for the digitalization of (African) agriculture and thereby influence the nature of development programming itself (see Schurmann 2018). Throughout the last years, state agencies have responded to these calls and tailored different programmes such as digital strategies (USAID n.d.) or the SAIS-project (“Scaling digital agriculture innovations through start-ups”) (GIZ 2024). The call for the digitalization of agriculture has also found its way into the African Union’s Digital Transformation Strategy 2020–2030 (African Union n.d.: 45f.). FAO and ITU assessed the state of the digitalization of agriculture in 47 African countries in 2022 while negotiations over the establishment of an ‘International Digital Council for Food and Agriculture’ have taken place since 2019 (FAO 2020, FAO and ITU 2022).

Apart from that, a new generation of African entrepreneurs seeking IT-based solutions for agriculture has also entered the scene. These *agripreneurs* increasingly rely on capital and resources from the Global North to make their solutions come alive (AI, blockchain, machine learning, precision farming, etc.). Accordingly, Dalberg Advisors and CTA take this into account when stating that ‘new entrants in the D4Ag space – including “big tech” players like Microsoft, Google, IBM, Bosch and Alibaba, as well as ‘big agri’ incumbents like Bayer, Syngenta, Yara, John Deere and UPL – will change the sector’s scale and scope’ (Dalberg Advisors and CTA 2019: 21). Or to put it differently, ‘The entrance of big tech firms will advance the data revolution in new ways’ (ibid.: 145). And indeed, ‘big agri’ and ‘big tech’ are at the forefront of setting the scene for a qualitatively new digitalization wave to come in the African agricultural sector.

The Nigeria-based digital platform Hello Tractor can serve as a prime example of novel alliances between IT solutions ‘made in Africa’ collaborating with Western companies which provide capital, networks, and further resources. Hello Tractor is an IoT platform founded in 2014 on which farmers can rent tractors on demand to cultivate their fields. The idea of renting tractors has become popular because the purchase of costly machinery by individual farmers is often not economical. While the start-up was awarded a grant by Bosch including a three-month participation in its acceleration programme (Onaleye 2019), IBM provided blockchain technology and cloud services to the platform (Dalberg Advisors and CTA 2019: 150). In 2020, the start-up signed a partnership with John Deere – one of the largest global manufacturers in farm machinery and so far, hardly present in markets of the Global South – to test sensor technologies on 400 tractors in Ghana and Kenya (Onaleye 2019). In the attempt to establish a ‘D4Ag solutions landscape’ (Dalberg Advisors and CTA 2019: 32) with regard to agricultural pitfalls, the state, as the formerly central actor, gets increasingly ascribed the role of an ‘enabler’ that is meant to create the right political, fiscal, and regulatory conditions for a ‘digitalization ecosystem’ to thrive (Malabo Montpellier Panel 2019: iv, see also Baumüller and Addom 2020). In this regard, many governments have developed funds to promote agribusinesses. Due to limited financial resources, this largely depends on ‘an emerging community of impact investors. To attract these funds, ICT4Ag entrepreneurs must pitch their products or services in a highly effective and convincing manner’ (CTA 2017: 31), leading us directly to the large conventions we visited.

New visions: Pitching ideas

The different actors introduced above meet and pitch their ideas at numerous fairs, conventions, conferences, workshops, and in online courses all dedicated to announcing and exploring the potential of digital technologies for African agriculture. Thus, policymakers and development practitioners increasingly mingle with tech experts, data analysts, and software designers. Characteristic of these events is a use of the latest ideas regarding presentation formats: lightning talks, where people present new concepts and ideas in a very brief and concise way; pitches, in which enterprises present and advertise their products; and investment challenges, in which start-ups compete for business funding. In addition, we observed vendor demonstration booths outside of the actual conference halls, where digital service providers were able to discuss their product with interested participants in more detail. Taken together, this displaying and pitching of ideas and products as well as staging of investment challenges produces a culture considerably characterized by competition among start-ups.

Nonetheless, all participants are seen as being part of the game, which even though allowing only for a limited number of winners, is supposed to be open, inclusive, and democratic, e.g. through digital live polls and voting mechanisms. Moreover, these events produce moments of (self-)identification. For example, when a forum thread in the online course asked participants to identify as ‘techie or aggie’, it prompted them to position themselves within a given spectrum of expertise that supposedly makes up the field of ICT in agriculture. Moreover, moderators at both conferences asked participants, ‘Hands up, for whom is this the first time at this conference? The second time? The third time?’ This can be read as identifying how experienced one is as a member of the community. By creating such moments, these events contribute to fostering a community of practice that supposedly works towards the same ends with shared basic assumptions and visions (see Johnson 2007 on communities of practices in development).

Through our ethnographic approach, we found that the visions promoted and negotiated by these actors generally reflect the technological solutionism that was also apparent in the written documents. Enthusiastic presentations, for example, about the ‘Ubers of mechanization’, a digital tractor service, celebrated big and successful technology firms. Furthermore, we identified three connected themes that are combined with and further differentiate the broader idea of technological solutionism at the events we visited.

First, there is a business rhetoric, expressed in a focus on the private sector and the purpose of generating predominantly economic results. As a keynote speaker at ICTforAg put it, ‘the challenge isn’t to develop great tech but to translate the tech revolution ... into economic benefits’. This leads to a narrative in which all actors involved are seen as businesspeople, including small-scale farmers. Second, there are calls to do things faster, better, bigger, i.e. at a large scale. On the one hand, this applies to the technologies themselves: essential for big data, artificial intelligence, or the Internet of Things is the ability to compute large data sets. On the other hand, scale is understood in terms of reach to large numbers of users. As an interlude prior to the lunch break the moderator at ICTforAg, for example, asked the participants: ‘Hands up, to how many people have you scaled your innovation or product? Up to 1000? 10,000? 100,000? One million? More?’ (Moderator at ICTforAg, 2018).

And finally, these events are characterized by a vision of data-driven agriculture – a vision that is yet to be realized. As an expert in the online course noted discussing a decade-old contribution to a volume published by Microsoft Research (Bell 2009: xii), ‘this really jumped out at me of how [it was written in 2009 that] “in the 21st century the vast volume of scientific data [...] is likely to reside forever in a live [...] publicly available, curated

state [...] for continued analysis.” Most institutions [...] are nowhere near that vision’ (Speaker at live presentation in online course, 2018).

In order to eventually achieve this vision of data-driven agriculture, the field has to rely on technology experts, data scientists and software developers. Hence, the new development experts are those ‘who have the key to the code’ (Speaker at Big Data for Agriculture Convention, Nairobi 2018) – for example, someone like Gervin, a Dutch technology expert we met at the event in Nairobi, who told us that he has been working on data-based IT solutions for African smallholder farmers for the last 20 years, but has never been to a village on that continent. This already indicates that the farmers not only remain largely absent from the stages of such events, they also hardly play a role in related project designs.

New Actors and visions in practice

Finally, this section will provide a brief insight into the implementation of the digitalisation of agriculture at project level in Tanzania where agriculture remains the ‘backbone’ to the country’s economy (e.g. Kimaro and Hieronimo, 2014). There is general recognition of the need to rapidly modernise agriculture as a means of increasing the country’s overall prosperity. Considering some of the fundamental structures and dynamics of Tanzania’s agricultural sector and the livelihoods this holds true (Wineman *et al.* 2020). However, rapid modernisation of agriculture is also criticized. Some see agriculture as a dead end, apprehending that focusing on the primary sector could prevent greater industrialisation due to the potential lock-in of labour, capital, and political interests (Mufuruki *et al.* 2017). Others point to the risks of the displacement of rural livelihoods, including peasant agriculture and agro-pastoralism, as well as the degradation of the environment (Bluwstein and Lund 2018, Snyder *et al.* 2019, Sulle 2020). Within these opposing positions, a donor community has positioned itself that is constantly exploring its strategies and measures to support agricultural development. For example, USAID, the World Bank, DFID, the EU, FAO, and AGRA support a variety of initiatives, programmes and projects under the umbrella of the Southern Agricultural Growth Corridor SAGCOT (for more details on SAGCOT see also Tups 2023).

Some of these donor organisations also support the pilot project in the Mbeya region of southern Tanzania, which is part of our case studies. For many years, a local NGO has pursued the goal of providing agronomic support to smallholder farmers, playing a central role as a facilitator for the transfer of Western agricultural knowledge and technologies to trigger the ‘African Green Revolution’ (Shepherd 2006: 399). This included the dissemination of improved seeds, fertilisers, pesticides, and herbicides, as well as training in good agricultural practices. However, when the results still did not meet the

targets set, this NGO agreed to test a new digital information service for the rice farmers in the area.

The technology introduced to the trial community basically represents a multi-perspective analysis of the rice fields. Every 10 days, a high-resolution satellite image is taken. The drone takes multispectral images of the rice fields, which had earlier been mapped with an app. Photos and manual descriptions of the crop status supplement the data as ground truth. In addition, there are USSD queries² for the farmers themselves, about their practices and timing in the fields. The data flows into a cloud and is processed to produce maps that show the status of rice, plant growth, and the water level in a visual form. The final product is an online platform that displays all the fields with colour codes indicating when something goes wrong regarding the growth of the plants. By clicking on the different rice fields, information about the farmer can be accessed if he or she has participated in the survey. In turn, in case the data about the fields indicates nutrient deficiency, disease or pest infestation, or inadequate water levels, the respective farmers are immediately informed via SMS.

The difference the digitization makes regarding the organizational structure of the project becomes visible in Figure 3.1. First, there are the philanthropic funders and facilitators that have also been present at the different conferences and fairs. To work with the technologies, a cluster of technology and data experts comes into the scene, along with SMS service providers. Most of these are not present in the Mbeya region, not even in Tanzania, but work in places providing the necessary data infrastructure (in this case, the Netherlands), complemented by software programmers and modellers sitting in co-working spaces or home offices somewhere in the world. As the technology expert in charge of programming, who is based in Israel, explains, ‘the NGO has all the contacts on the ground from previous projects like the banks, the agribusinesses, the processor and of course to the farmers. And then for the technological part it gets really messy. They are so many, and some are just ghost-companies’ (Interview with technology expert based in Israel, Dar es Salaam, 21.07.19).

² USSD, Unstructured Supplementary Service Data, also known as quick codes, is a GSM communications protocol to send text messages from the phone to another device, usually a network or server, e.g. for balance inquiries, mobile money services, different information services, and location-based content services. Due to a real-time connection, queries and answers are nearly instantaneous.

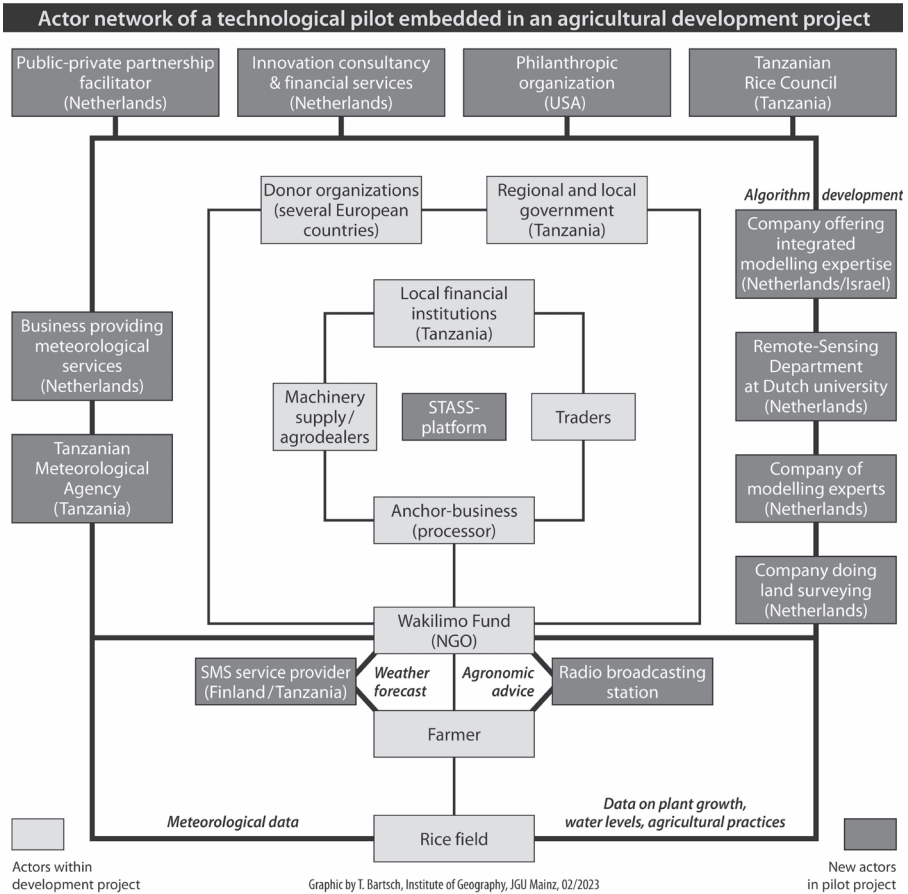


Figure 3.1. Turning a conventional into a digital project: new actors [Graphic: T. Bartsch].

This kind of analysis can only work in areas comprised of clearly defined and relatively large fields, a prerequisite for the algorithm to be able to distinguish rice from other plants. Consequently, the rice farmers involved in this project are considered to be wealthy and productive. According to the NGO, for a pilot one needs a trial community that is willing and motivated to learn, and this applies to people who ‘have no fundamental problems in life’ (informal conversation with project staff, May 2019). This allows for a focus, first and foremost, on the engagement between farmer and technology and not on the pursuit of ‘development’ or the provision of needed assistance. This balancing act between testing and development formed a basic element of the project and posed a considerable challenge in terms of coordination between

the ‘techies’ and ‘aggies’ in the field as they tried to gain acceptance among the farmers. As the technology expert from Israel explained, ‘in Holland, the technology is actually used by a large agricultural company so that the farmer knows more about his fields and potatoes in real time, can optimize his processes and intervene quickly in case of drought or disease. That is what the technology is good for’ (Interview with technology expert based in Israel, Dar es Salaam, 21.07.19).

What the technology is good for and what it is supposed to achieve in a pilot project in Tanzania seems to differ considerably. The official goal is to provide 125,000 farmers with weather forecast information, agribusiness support, and plot-specific crop advice. On top of this, 400 agribusinesses are to be connected with farmers, with the idea that this would make the value chain more efficient and enable smallholders to make better decisions on the basis of digitally mediated knowledge and thus to become more productive and economical. However, in the Mbeya region, only very few of the small agribusinesses have laptops and Wi-Fi to load the data-heavy platform. Most farmers have no access to it at all. Therefore, SMS services and USSD queries are designed to circumvent these issues of online connectivity.

However, it soon becomes clear that there is a significant difference between what the technology can do and what is actually done with it. At first glance, farmers seem to appreciate the information that is sent to them. As one of the farmers states:

We all know, sometimes some farmers stay for one month, without weeding to save the money. But those SMS emphasize: weed after two or three weeks! There we realize that our delay to weed has an effect. And if I apply the pesticides recommended the [...] [plants] grow even better. So through those messages we realized that we fooled ourselves because of financial hardship. (Interview with farmer, 23.03.2020)

However, the same farmer, later in the interview, admitted that, despite following the advice, the harvest had been bad due to drought, so the money for the pesticides might have been better spent elsewhere. Others tell us that the information and weather forecast they receive via SMS often arrive too late, or that they do not receive them at all as they did not give their correct number to the NGO. As an NGO staff member tells us:

We sent messages to a woman about her rice field again and again, but she never followed the advice. Then one day we met her while collecting data and asked her why she does nothing about the low water level in the field and does not consider our messages. She replied that she did not get the messages. She is not allowed to give her number to strangers.

She always gives out her husband's number at all NGO training sessions and he has deleted all messages because he didn't know what this is all about. (NGO staff member, 14.06.2019)

Again, others admit that they do not read the messages because they think they are spam. This is also noted by the extension officer who complains that 'farmers do not answer the USSD-survey about their practices in their field, because they are afraid that those messages are gambling and gaming messages!' (Extension Officer of trial community, Mbeya, 16.06.2019).

Being aware of a lack of trust between those bringing the technologies and those selected as the trial community, it is the technology itself that is supposed to solve the issue. As one of the dealers trading in seeds and fertilizers explains:

We have a good relation to our farmers. [...] Still we have some challenges at times, when we provide them with loans for Yara-fertilizers. Their harvest will stay a secret, because they know if we know, they have to pay back. With [the platform] we can see on our own. (Interview with Agro-Dealer, Mbeya, 04.06.2019)

This reveals how data generated through the technologies is used for disciplining and control. More than ever before, in this new phase of agricultural development, farmers seem to be pushed into the background, serving mainly as data sources. The same holds true for most of the NGO staff. From time to time an IT specialist comes and teaches both NGO workers and farmers the necessary applications and services to collect data. For this purpose, he leaves lots of smartphones and tablets on site. But even if the technologies are promoted as fast and simple, in practice they are not. The data collection often proves tedious and time-consuming, as it involves mapping entire areas and entering repetitive and mundane data, sometimes twice or even three times if the cloud service is constantly interrupted by a poor internet connection. At best, at some point the data will be sufficient to refine the algorithm.

The model is calibrated so far, it took some time. [...] If everything goes on like this we will have an algorithm at the end of the project that will be the basis for information services in all rice-growing areas where the environmental conditions are similar to [here]. (Interview with technology expert based in Israel, Dar es Salaam, 21.07.2019)

While, at least at this point, the pilot project mainly serves the development of the technologies themselves, for the farmers, pilots come and go and much appears to stay the same.

New principles of agricultural development through digitization

As the empirical insights illustrate – from the more general objectives and development concepts in documents on the digitalization of agriculture in the Global South, the formation of a community of practice in the professional context of conferences and workshops, as well as the implementation in a pilot project in southern Tanzania – the turn towards digital technologies entails more than just technological change within the persistent search for technological fixes. It also brings with it a change in the character of agricultural development, which expresses itself most distinctively in three different, yet related principles of technological solutionism in development: datafication, gamification, and experimentation. All three are symptomatic not only of current development practice but also of other fields experiencing a digital transformation.

Datafication

Data has become a valuable global commodity. But it is much more than simply Information: in expert hands, it is intelligence. (CGIAR Platform for Big Data in Agriculture, <https://bigdata.cgiar.org/about-the-platform/>)

Service providers – and farmers – should not treat data as just a resource, but as an asset. [...] Farmers should treat their data as their property, not just information shared with others. (USAID 2018: 42)

Reports, conference presentations, and project staff members all wish to accelerate data-driven agricultural development. So far, however, the quality of a project is primarily being defined by the quality of the data rather than its effects on agricultural development. In the recent report by CTA data is even referred to ‘as the new oil’ (Dalberg Advisors and CTA 2019: 11), since ‘for Africa it is certainly the case that data might be the fuel that drives the transformation of smallholder farming and keeps the continent on track’ (*ibid.*). When examining the projects, it becomes evident that data means knowledge. As expressed in a lightning talk, ‘technology is not a magical solution, but it targets the lack of reliable information’ (Speaker at ICT4ag conference, 2018). Data is not only considered as exact and objective, but it even appears as if data is currently the only ‘real’ knowledge, ‘making socio-economic organization more sophisticated’ (Cherlet 2014: 778). This also has an impact on who is considered as an expert, now privileging those able to program the software and analyse the data.

When data can be used at scale it shall ultimately guide decision-making. Moreover, data is money as it can, for example, be sold to agrochemical companies (Interview with Kenyan entrepreneur, 2018). And, as we could briefly illustrate with regard to the pilot project in the Mbeya region (see

Figure 3.2 for data collection in the pilot project), data also means power and control. Data from satellites, drones, or sensors as well as records of text messages not only provides a means of surveillance of crop growth, but also allows for intimate insights into the activities and performance of extension officers and farmers. In the long run, artificial intelligence and automation shall make their jobs obsolete, shifting control even more to those in front of the screen elsewhere. And, as formulated in the announcement of the convention in Nairobi, ‘newer digital innovations, including machine learning, the expansion of connected sensor technologies, and robotics – promise more dramatic changes in the farming landscape in the near future’ (field notes from Big Data for Agriculture Convention, Nairobi 2018).

Gamification

‘Data, data, data!!! We don’t have time for basic research or basic innovations...’ (Breakout-Group Speaker at Big Data for Agriculture Convention, Nairobi, 2018)

Instead of ‘basic research’, what drives this field is new investment strategies and sales pitches to attract private funding. Telecom operators regularly run competitions such as, for example, the Orange African Social Venture Prizes, or the MTN app competition challenges to include agriculture as one of the themes for which applications can be developed (see e.g. AGRA 2015). Moreover, being confronted with the YoBloCo Awards, Plug&Play Days, the Inspire Challenge, AgriHack activities, amplify.org, or the Africa Teen Geek Competition, it is striking how the field is increasingly characterized by what has been described as gamification. As Tulloch and Randell-Moon (2018: 204) put it, ‘gamification can be understood as the extension of the principles and mechanics of game-play: rules, points, rewards, leaderboards, and so on into “real-world tasks”’. Even online courses use a points system to make participants engage more, for example, giving points for posts to the online forum, for watching a video or simply for downloading course material (Online Course 2018). The Mahindi Master uses game simulations as a way to teach farmers about fertilizer inputs in relation to different soil types. And in the Inspire Challenge, the new actors of agricultural development introduced above – innovators, start-ups, and entrepreneurs – are encouraged to partner with the well-established CGIAR institutes to produce interoperable datasets. As the CTA report confirms, ‘prize money won in various competitions is a common source of funding. The benefit of this approach is that there are fewer or none of the strong requirements for how the funds can be utilized – as is often the case with grants’ (CTA 2017: 31). While, at first sight, this may seem like a win-win situation for both, it also highlights unequal power dynamics.



Figure 3.2. Data collection in the rice fields of southern Tanzania [Photo: A. Matejcek].

The conventional centres of power are no longer creating knowledge, but rather ‘curate knowledge production in multiple locations around the globe’ (Tulloch & Randell-Moon 2018: 218). However, most decisions, for example, on who wins and gets the funding, are still made by those working for the big organizations. Another consequence of this, as Schwittay and Braund emphasize, is that it is mainly the process that has changed, rather than the selected ideas (Schwittay and Braund 2017).

Experimentation

The dominant role of large development organizations, as well as the new relevance of technological experts and digital infrastructures, means that many of the technological innovations that are designed to address agricultural development are still being developed in the Global North. These are then ‘tested’ in the Global South – in our case, Eastern Africa – in order to generate a gradual process of technological appropriation. Pilot studies, in particular, are used to detect technological errors, train the different actors involved, facilitate external funding, and explore upscaling opportunities (see e.g. ITU 2017). As the GIZ has pointed out:

Cyclic innovation, trial and error, prototyping, rapid learning, adaptation and re-adaptation are typical characteristics of modern ICT-development processes that do not always easily match with more thoughtful, longer and slower processes of project design, implementation and evaluation of ‘traditional’ development agencies and implementing organizations. (GIZ 2016: 5)

This clearly aligns with the new mode of experimentation which is currently being observed in development practice (Donovan 2018, Berndt and Boeckler 2016, Berndt 2015, Webber 2014). Instead of transferring an established technology to the ‘developing world’, ‘contemporary technology aspirations increasingly articulate and practice the Global South as a live laboratory for technological experimentation’ (Fejerskov 2017: 947). As Fejerskov has pointed out, focusing on the work of the Bill and Melinda Gates Foundation, ‘innovation and high-risk engagement and experimentation apply not only to technology but extend far into the private and social realms of people’ (Fejerskov 2017: 955). While failing becomes a legitimate outcome in the learning process of technology experts, it is often unclear what a failed project means for the local population involved. With regard to the farmers, at least in the projects we studied, it appears as if – based on past negative experiences with development projects – expectations remain low. Some ethnographic insights even indicate diverse forms of resistance to and subversion of the new

principles of digital transformation. Finally, it often seems unclear to what extent the experiments will eventually serve the ‘development’ of the communities, or whether they will just serve the development of the technologies themselves. The balancing act between testing and development continues to be a daily occurrence in projects, as well as the field more generally.

Conclusion

At least since the institutionalization of ‘development’ in the mid-20th century, attempts to strengthen rural livelihoods in Africa – as elsewhere in the world – have strongly relied on technological solutions. The idea of a technological fix for low agricultural outputs certainly characterizes the majority of ‘development’ interventions in this field. While once irrigation schemes were built, tractors were shipped, or pesticides were sold under the pretext of agricultural modernization, an increasing uptake of digital technologies can be observed in the last decades. In this contribution, we have shown that this latest shift in the long history of technological approaches to agricultural development is more than just a turn to other technologies. Through document analysis, event ethnographies and participant observation in projects on the digitalization of agriculture in Kenya and Tanzania it became apparent that new actors and new visions have emerged which have considerably changed the mechanisms through which agricultural futures are supposed to be realized. In addition to the major development organizations and the numerous NGOs active in the sector, big-technology firms have entered the scene. Moreover, innovative start-ups and software developers all over the world participate in developing technological solutions to what is still one of the most pertinent issues of development in Africa. These new and old actors meet at the many conferences, workshops and fairs where new project ideas are ‘pitched’, discussed, and evaluated.

Here, it was interesting for us to observe the insignificant role assigned to the social sciences in such events, reminding us of Weinberg’s provocative assumption that technology, by offering shortcuts to social problems, could make the social sciences obsolete (Weinberg 1993). Indeed, current visions of ICT4D, Data4D, and D4Ag appear to be based on universal expert knowledge about development problems and how they can be solved by presenting political, economic and social challenges as technical ones. In this way, knowledge is removed from its context: as apparently neutral, technologically collected and processed, information is to be conveyed to the rural population of the Global South to foster development. While the complex coming-together of these visions and respective programmes on the one hand, and the local settings and interests on the other, are hardly addressed at these events, they

become most striking when following these ideas and the technologies to the villages and fields of farmers.

Visiting both professional events and the sites where projects shall be implemented in Kenya and Tanzania, the new principles that come along with the digital transformation of agricultural development become clear. Projects striving for increased agricultural productivity are characterized by datafication, gamification, and experimentation. As our empirical research shows, all three of these processes have severe implications, especially regarding the power relations in this field where farmers are more and more moved to the background. Overall, the principles of datafication, gamification, and experimentation as observed in the context of East African agricultural development signify the ongoing depoliticization in visions of rural futures. Instead, attention is often devoted primarily to the development of technologies and their potential rather than to the rural population and the actual (in)effectiveness of these technologies. Thus, when visiting those in the fields it is striking to experience the difference between the enthusiasm and euphoria expressed on paper and at the many events currently taking place, on the one hand, and the frustration among those turning these ideas into practice, on the other. As one of the technology experts admits:

[...] nothing has really changed on the ground. [Maybe] it would be better to distribute technologies through private businesses ... or it would be better to just give the farmers a tractor ... I don't know! (Interview with technology expert based in Israel, Dar es Salaam, 21.07.2019)

Considering the history of technology in agricultural development, this would leave us back where it all began. Thus, even though digital technologies still promise a better future for agricultural development, our empirical research indicates that for the farmers, at least, the future might not turn out to be that different after all.

The long history of technology in agricultural development in the Global South looks back on a series of failed investments, a lack of radical change and an ongoing search for the obstacles and their remedies (Wiggins 2014, Jones 2005). A number of studies diagnose the ongoing digital technology uptake in agriculture as inadequate because not enough technology is in place in quantitative terms. There is often talk of little adoption or low scaling. This is commonly blamed on a lack of funding, will, skill or enabling environment (Abdulai 2022, Ayim *et al.* 2022, Baumüller and Addom 2020).

Some countries, such as Tanzania, with 78 mobile phones per hundred inhabitants, show that in some cases long-standing global inequalities persist. Looking at the global distribution of smartphones and internet access per capita, for example, these in turn reflect the digital divide quite clearly in

general (ITU 2023) as well as in farming in particular (Mehrabi *et al.* 2021). Nevertheless, most high-tech products today do not come from the Global North and are therefore not necessarily more expensive and unaffordable compared to wages in the Global South. In some Asian countries, there are three times as many mobile phones per hundred inhabitants as in many European countries: South Africa, Ghana, and Botswana, for example, have more phones per capita than Germany (ITU 2023). Of course, this says nothing about the quality of the technologies or their distribution in these countries. For regions with weak infrastructure, it is still difficult to ensure the supply of technologies and basic training in their use (Unwin 2009, Murphy and Carmody 2015). For example, the predominant language of these technologies is still English, both in terms of application and programming. The cultural dimension of these technologies, which focus on Eurocentric and Western content, needs to be taken into account (Kshetri and Dholakia 2009).

Therefore, the ‘global digital divide’ cannot be reduced to unequal access to mobile phones, computers, and the internet alone. The long-standing political, social, and economic inequalities behind it must also be taken into account (Kshetri and Dholakia 2009: 1664, following UNCTAD 2006). This apparent problem of having or not having technologies, in turn, seems to have many dimensions: ‘The digital divide entails several gaps’ (Kshetri and Dholakia 2009: 1668), such as free markets, capital, technologies, know-how, stability, democracy, and equality (Ouma *et al.* 2019: 345–6). Hence, the idea that if the tractor has not sparked a revolution, the mobile phone will, rather seems to rule out many desirable futures for rural Africa (Groves 2017).

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Green Futures and National Planning: Rhetoric and Reality in Rural East Africa

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Introduction: Envisioning green futures in Africa

The term ‘green futures’ refers to development ideas and initiatives that aim to reconcile economic growth and ecology, ensuring that the production of goods and services does not have a negative impact on the environment. This chapter focuses on green futures in the context of Kenya and Tanzania, where green concepts are becoming increasingly influential in national development. It presents two examples of green initiatives to illustrate how such ideas emerge and influence government development plans, as well as the challenges faced in implementing them. In Kenya, for example, the process of ‘greening’ the food and agriculture sector is complex and expensive, while in Tanzania a major agricultural corridor is being contested and rejected on the basis of a political regime’s development priorities.

Green visions are key elements in Africa’s ambitious development plans, with particular relevance for the future of rural areas. They encompass a wide range of environmental issues, including the health of ecosystems and biodiversity, the sustainability of agricultural production and resource use, organic cultivation, and the protection of conservation areas. ‘Green’ is used as a metaphor to refer to natural resources, human-environment relationships, land-use change, and sustainable development (Leach 2015). The use of this metaphor appeals to the idea of a ‘common future’, presumably in everyone’s interest, based on the harmonisation of environmental, economic, and social objectives. In recent years, this kind of green terminology has penetrated a wide range of economic fields, expressed for example in concepts such as the ‘Green New Deal’, ‘Green Growth’, or ‘Green Economy’ (Barbier and Markandya 2013, Buseth 2017, Bergius *et al.* 2018, Hwang *et al.* 2017). In a sense, ‘green’ can be seen as a fashionable buzzword, as it is used to put a

positive spin on all sorts of transformative processes, including agricultural intensification programmes, the establishment of large nature reserves, or the shift to renewable energy. Calling these processes ‘green’ implies that they are environmentally friendly, sustainable, and in everyone’s interest. In Africa, the implicit idea of inclusiveness behind these envisioned green futures is evident in national planning and public debates. The African Union, for example, published its Agenda 2063 under the programmatic title ‘The Africa We Want’, which explicitly aims at a ‘common strategic framework for inclusive growth and sustainable development and a global strategy to optimise the use of Africa’s resources for the benefit of all Africans’. In other words: Green is a political statement; it signals hope for a better future by putting the environment first.

This move towards a green agenda is also gaining momentum in Kenya and Tanzania. In both countries, national planning aims for a major push towards economic development and modernisation, based on the mobilisation of domestic and international capital, new technologies, and increased agricultural production. The quest for a ‘green’ future is reflected in national plans such as Kenya’s Vision 2030, Tanzania’s Vision 2025, as well as the newly prepared Tanzanian Vision 2050, and countless regional development initiatives and projects. However, the physical implementation and impacts of green development are often controversial, as many of the ambitious programmes have so far failed to deliver as planned. This chapter examines the ambiguous relationship between the political rhetoric and the socio-economic reality of the green paradigm, focusing on the historical background, actors, and political conditions of its implementation. The juxtaposition of rhetoric and reality is empirically grounded in the observation that many of the visionary policy papers of the past three decades have been collections of promises and wishful thinking rather than feasible programmes.

To be clear, we do not question the challenges of climate change and the importance of economic development in Africa. However, we believe that a degree of scepticism is warranted, the more so the further into the future policy papers are set. In this respect, Agenda 2063’s target year is a long way off. And yet, as we will argue, these policy papers are interesting not only for the realism (or the lack thereof) they show in setting goals on a distant horizon, but also because they tell us something about the intentions, perceptions, and knowledge of their authors in the present. In this sense, they can be understood as indicators of contemporary problematisation and as tools of ‘future-making’ (Appadurai 2013).

The chapter begins with the underlying idea of Green Growth and its historical background in the context of neoliberal development. It then discusses the use of green concepts in national planning in Kenya and Tanzania. The case

studies examine how these concepts are negotiated between different actors and how they are locally appropriated, modified, and resisted. In choosing these two case studies, we do not aim to generalise or compare. Rather, the empirical examples allow us to understand how green ideas ‘travel’: how they are translated, modified or rejected, appropriated, and finally put into practice. In this chapter we aim to address and contribute to answering a number of questions: How do ‘green aspirations’ influence national planning and local development? Where do green development concepts become visible in national plans, policy debates, and implementation activities? What makes ‘green’ aspirations attractive and to whom? What is the purpose and role of the environment in national development planning? Whose rationality and interests are reflected in the mainstreaming of green concepts into national plans? How are concepts of green development communicated and translated across scales?

The paper draws on the researchers’ long-term engagement and observation of the dynamics in both Kenya and Tanzania through collaborative projects, including Research Group ‘Resilience, collapse and reorganisation in social-ecological systems of African Savannas’ (2013 to 2016), and the Collaborative Research Center (CRC-TRR 228) ‘Future Rural Africa – future-making and social-ecological transformation’ since 2018. It draws on empirical work in Kenya and Tanzania, with fieldwork focusing on farmers, pastoralists, development agencies, and state and non-state actors in the Green Growth agenda.

Conceptual background: The ‘greening’ of development as a travelling model

‘Green’ has multiple meanings in policy debates, all of which refer in some way to ‘nature’ and human-environment relationships (Leach 2015). In this chapter, we focus on concepts that address the value of nature for human purposes in the context of agricultural development. The understanding of ‘green’ development in the scholarly literature has sparked controversial debates that see it either as an appropriate approach to bridge the gap between economic and environmental goals or as just another neoliberal strategy in a green disguise. We want to add another perspective to the critical debate by drawing attention to the performative dimension of ‘green’ futures. We propose to think of green development concepts as travelling models, i.e. as generalised ideas or blueprints designed by experts for particular conditions and then transferred to other situations and regional settings, where they are locally appropriated, adopted, and eventually modified to better fit the new situation (Behrends *et al.* 2014).

The concepts of ‘Green Growth’ and ‘Green Economy’ emerged in the early 2000s as a response to the multidimensional global crisis of sluggish economic growth, resource depletion, and climate change. The idea itself has deep historical roots, going back to the Club of Rome’s ‘Limits to Growth’ (Meadows *et al.* 1972) and the Brundtland Report on ‘Our Common Future’ in 1987. The critical understanding of human relations with nature influenced the creation of the Intergovernmental Panel on Climate Change (IPCC) in 1988, the Rio Conference in 1992, the subsequent annual conferences of the parties to negotiate climate change mitigation and adaptation, and more recently the European Union’s call for a ‘New Green Deal’ (Wolf *et al.* 2021, Kemfert 2019). One of the early proponents of ‘Green Growth’ was the government of President Lee Myung-bak (2008–2013) in South Korea, which used the concept as a blueprint for structural transformation and later supported its adoption in other countries (Hwang *et al.* 2017). In general, green transformations seek to influence development practices and discourses, making them particularly relevant for countries in the Global South (Scoones *et al.* 2015). It is therefore not surprising that Green Growth has become a buzzword in much of Africa, where it is being pushed through policy and local development plans as a crucial and immediate remedy to pressing economic, environmental and social challenges (Onuoha *et al.* 2017).

Proponents of the green development paradigm see it as a new blueprint for environment-friendly economic growth (Barbier and Markandya 2013). The concept is actively promoted by influential international institutions such as the Organisation for Economic Co-operation and Development (OECD) and the Global Green Growth Institute (GGGI), as well as by numerous development agencies. In addition, the conceptual framework is the subject of intensive discussions at development-oriented research centres such as the Institute of Development Studies at the University of Sussex (Scoones *et al.* 2015), the Green Economics Institute in the UK (Onuoha *et al.* 2017), the German Institute of Development and Sustainability IDOS (Auktor *et al.* 2020), and many others.

The OECD (2010) defines Green Growth as ‘a way of pursuing economic growth and development while avoiding environmental degradation, biodiversity loss and unsustainable use of natural resources’. A report by United Nations (2008) states that ‘green growth aims to reconcile economic growth and environmental sustainability by promoting changes in the way societies produce and consume’. Since 2010, the OECD has introduced the Green Growth strategy to its member countries as a new approach to replace the ‘grow first, clean up later’ model, starting with Asia and the Pacific (see OECD 2011). The strategy also advocates that environmental protection should be seen as a driver of growth and essential for long-term economic sustainability, rather than a constraint on economic growth, and urges the

creation of Green Growth policies, the adoption of green planning that improves eco-efficiency in production and consumption, and the development and strengthening of institutions for effective decision-making. In this sense, Green Growth is presented as a triple-win approach that helps reconcile competing development goals while supporting economic growth as a prerequisite for income generation.

At the global level, the establishment of the Global Green Growth Forum (3GF) in 2010/2011 created a collaborative platform to promote Green Growth by helping governments, businesses, and experts to shape the successful transition to a global Green Economy. The 3GF thus became an influential platform for the consistent adoption of the Green Growth strategy, broadly translated as the Green Economy, in low-income countries. By 2018, the concept had been mainstreamed across much of Africa, driven by platforms such as the Africa Green Growth Forum, the Alliance for Green Revolution in Africa, the Green Growth Knowledge Platform, the Green Industry Platform, and the Green Finance Platform. Sector-specific Green Growth initiatives in Africa include the Africa Green Revolution Forum, which focuses exclusively on African agriculture, and the African Forest Landscape Restoration Initiative (AFRI00), a country-led effort to restore 100 million hectares of land in Africa by 2030. These steps have heralded the creation of many green funds, mainly through the Africa-OECD partnerships.

According to the OECD (2010), Green Growth strategies build on existing sustainable development initiatives in many countries and aim to identify greener sources of growth, including seizing opportunities to develop new green industries, jobs, and technologies, while managing the structural changes associated with the transition to a greener economy. For developing countries, it states that

the objective of green growth addresses priority environmental challenges, including biodiversity and ecosystem services, climate change, sustainable materials management and the sustainable use of natural resources, including forests and water. It does so by promoting sound natural resource management and governance, designing climate-resilient growth, and promoting low-carbon growth through incentives, institutional and regulatory reforms (see OECD 2011, 2013, 2015).

The African Development Bank (AfDB) has been particularly instrumental in Africa's appreciation of the Green Growth strategy, following the publication of its discussion paper 'Facilitating Green Growth in Africa'. The authors note that Green Growth is compatible with Africa's priorities, adding that 'green growth means pursuing inclusive economic growth through policies, programmes and projects that invest in sustainable infrastructure,

better manage natural resources, build resilience to natural disasters and enhance food security' (Sperling *et al.* 2012: 5).

This raises the question of how these concepts, promoted as a one-size-fits-all solution for the Global South, are appropriated in the target countries and how they influence local development planning. In what follows, we explore this question using the examples of Kenya and Tanzania. We want to show how Green Growth and Green Economy concepts are negotiated, modified, and resisted on the ground, and to what extent they are able to influence national planning and local development in reality. We suggest that Green Growth and Green Economy strategies reflect a form of colonisation of development planning in Africa, in so far as the green paradigm and the Green Growth ideology were not initially formulated in Africa, but were more or less willingly adopted by African politicians and project managers to modify the existing forms of planning. Yet the initiatives resulting from this adoption of the global paradigm serve various interests that often have relatively little to do with the 'green' philosophy.

Kenya: Green Growth and development planning

The Global Green Growth agenda is a defining aspect of Kenya's future-making, reflected in a wide range of economic sectors such as energy, conservation, infrastructure, food production, and others. Kenya's green transition ideas have been reflected in the country's Green Economy policies (e.g. in biofuels and renewable energy) since 2008 and are aligned with the government's long-term development plan, Vision 2030. Soon after the emergence of Green Growth as a concept in 2010, the country joined the newly created Global Green Growth Forum (3GF) in 2011, and quickly thereafter launched a Green Economy assessment study with the support of Northern actors, including the European Commission, WWF, and UNDP. The results of the study, which analysed the country's Green Economy potential and challenges, provide a very optimistic outlook for a green future:

Under a green economy scenario, real per capita income in Kenya is expected to nearly double by 2030, outpacing income growth under business-as-usual scenario. The transition to a green economy can deliver important benefits, such as relatively high long-term economic growth, a cleaner environment and high productivity. The quantitative analyses undertaken to assess the economy-wide impact of green investments, under different scenarios, shows that significant positive returns can be realized after only seven to 10 years (UNEP 2014: 2).

With the promise of faster economic growth and increased wealth-creation opportunities, the country embarked on a Green Economy Strategy and Implementation Plan (GESIP). The plan, which covers the period 2016–2030, envisions a low-carbon, resource-efficient, equitable, and inclusive socio-economic transformation. Central to realization of GESIP are key international actors including UNEP, AfDB, DANIDA, WWF, and GIZ (Government of Kenya 2016). The resulting Green Growth and Green Economy initiatives and projects include the SWITCH Africa Green Project, Operationalizing Green Economy Transition at Sub-national level in Africa, the Denmark – Kenya Green Growth and Employment Programme,¹ NETFUND Green Incubation Program, Green Schools Program, and Sustainable Financing Initiative.

Notably, Green Growth strategies are increasingly featured in development planning in Kenya, but whether these aspirations translate into concrete action at the local level is debatable. Nevertheless, GESIP has paved the way for ‘greening’ key economic sectors such as environment and natural resources; agriculture, livestock and fisheries; industry, trade and cooperatives; manufacturing; community affairs, labour and social protection; water and irrigation; energy and petroleum; decentralisation and planning; and even education.

Kenya’s Green Growth strategy is developed around five thematic areas that are *meant* to align with the country’s Vision 2030 and related development plans. These are: (i) promoting sustainable infrastructure – energy, transport, agriculture and irrigation, water and sanitation, waste management, and housing and construction; (ii) building resilience – promoting efficient management of public finances, livelihood diversification for vulnerable communities, and enhancing disaster-risk-reduction measures; (iii) sustainable natural-resource management – encompassing agriculture, forestry, water, fisheries, wildlife, land use, and extractive industries; (iv) promoting resource efficiency – increasing national energy efficiency, enhancing water efficiency in urban and rural areas, managing waste as a resource; and (v) social inclusion and sustainable livelihoods – promoting green innovation and technology development, and accelerating creation of green jobs (Government of Kenya 2016).

Despite the spirited push of the greening agenda, there obviously remain difficulties in connecting, mainstreaming, and implementing the concepts in existing development plans. In a 2016 report, the state notes that Kenya’s transition to a Green Economy pathway is constrained by:

¹ Denmark contributed funds for activities that are part of NEMA’s Strategic Plan for 2013–17.

- 1 inadequate compliance, weak enforcement, and ineffective environmental laws and regulations;
- 2 cost, financial constraints and barriers to technological change, which inhibit green technology transfer, adoption, and adaptation;
- 3 conflict between environmental management and economic growth;
- 4 barriers limiting access to markets for green products at local as well as international level;
- 5 gaps in human capacity and skills in some aspects of green economy;
- 6 vulnerability of Kenya's economy to internal and external shocks (e.g. adverse weather conditions, macroeconomic instability and performance, insecurity including terrorism);
- 7 key national challenges including infrastructure deficits, unemployment, and poverty (Government of Kenya 2016: 13–14).

Below, we zoom in on the case of organic farming to illustrate how the character of production has changed in response to Western demands and underlying realities.

Food for the future: greening Kenya's food and agriculture sector

Over the past two decades, the greening of the food and agriculture sector in Africa has received increasing attention. This initiative has brought together local and international actors, including investors, development partners, financial institutions, and NGOs. It has also attracted billions of US dollars in investment and aid, both technical and financial. The Alliance for Green Revolution in Africa (AGRA), established in 2006, is the continent's vehicle for a green revolution in food and agriculture.

The idea of greening the food and agriculture sector in Africa is, ideally, a Northern concept, and therefore what we understand by a travelling model. The initiative 'is part of the OECD's Green Growth Strategy, which seeks to define a path of economic development that is consistent with long-term environmental sustainability, using natural resources within their carrying capacity, while ensuring an acceptable standard of living and poverty reduction in all countries' (OECD 2011: 7). The OECD's 2011 report 'A Green Growth Strategy for Food and Agriculture' supports this notion:

A green growth strategy aims to ensure that enough food is provided efficiently and sustainably for a growing population. This means increasing production while managing scarce natural resources, reducing carbon intensity and negative environmental impacts throughout the food chain, enhancing the provision of environmental services such as carbon sequestration, flood and drought control, and conserving biodiversity (ibid, 7).

As a result, Kenya's agricultural growth and development has been a key feature of development planning. The 2010 Constitution prioritises food security as a devolved function; under Vision 2030, the agriculture sector promises to increase the country's GDP by moving the economy up the value chain;² and the Big 4 agenda prioritises agro-processing, food, and nutrition security.³ Trends shaping agriculture globally have led to a series of reviews of the sector in Kenya since 2003, culminating in the establishment of the Agriculture and Food Authority (AFA) in 2014.⁴ AFA is a State Corporation in the Ministry of Agriculture, Livestock, Fisheries and Cooperatives whose main role is to regulate, develop, and promote scheduled crop value chains for increased economic growth.⁵

In line with the OECD prescription, one of the AFA's key initiatives is to promote the Green Growth economy, framed as 'promoting economic growth and development while conserving the natural assets that provide the resources and environmental services on which our well-being depends' (AFA Strategic Plan 2017/18–2021/22, 28). To this end, AFA, in collaboration with other stakeholders,

seeks to provide technical assistance to the counties of Kenya in promoting the concept of green growth economy as a way of ensuring environmental protection and sustainability through agricultural practices, such as promoting diversification into appropriate non-traditional agricultural crops to safeguard the environment and vulnerability to climate change, and sensitising value chain actors on best environmental practices in agriculture (ibid.: 29).

Organic farming: the promise and reality of a green idea

Organic agriculture is a production system that sustains the health of soils, ecosystems, and people, and is based on ecological processes, biodiversity, and cycles adapted to local conditions, rather than on the use of inputs with adverse effects (IFOAM 2013). It is seen, not only as a modification of existing conventional practices, but also as a restructuring of whole farming systems (UNEP/UNCTAD 2008: 6–7). Although organic farming started in Kenya in the early 1980s (Kamau *et al.* 2018), it has remained a rather unpopular farming system, especially among the millions of smallholder farmers who

² <https://vision2030.go.ke/economic-pillar/>. [Accessed 05.03.2021]

³ <https://www.president.go.ke/food-security-and-nutrition/>. [Accessed 11.04.2021]

⁴ AFA Strategic Plan 2017/18–2021/22 [https://agricultureauthority.go.ke/images/docs/AFA%20Strategic%20Plan-min\(1\).pdf](https://agricultureauthority.go.ke/images/docs/AFA%20Strategic%20Plan-min(1).pdf), [Accessed 18.07.2021]

⁵ <https://www.agricultureauthority.go.ke/index.php/en/homepage/background>, [Accessed 18.07.2021]

account for more than 80 per cent of the country's agricultural production. Out of approximately 28 million hectares of agricultural land in Kenya, only 171,298 hectares, or 0.6 per cent, were organic in 2022.

The results of a study in Embu in 2021 revealed a number of realities experienced by organic farmers dealing in macadamia and French beans.

Cost and time:

Organic farming is costly and time-consuming, making it almost entirely dependent on external funding. Costs include converting conventional farms to organic, which takes about two years; capacity building to equip farmers with the necessary organic farming skills; soil testing and chemical analysis; and certification, to name a few. One macadamia company⁶ reported spending about €2 million to obtain certification to market its products in Europe. It also spent around €5 million to train 60,000 farmers in organic farming over a four-year period. Another company, which had experimented with exporting organically produced French beans, suffered heavy losses and reverted to conventional farming. Organic farming for the export market is thus complex, making it a venture for multinational companies to access European markets.

The risk of organic farming:

In addition to the capital requirements, interviews with farm managers from the two companies revealed that organic farming, particularly for food crops such as French beans, vegetables, and fruit, is very risky and unpredictable and therefore may not guarantee a return on investment or quality of produce. Fruit and vegetables require more chemicals due to their higher exposure to pests, while organic pest control methods have only a 40 per cent success rate. Organic food was at risk of not meeting international market requirements for the particularly demanding Demeter biodynamic certification.

Competition between organic and inorganic pesticides:

Over 90 per cent of Kenya's agricultural land is used for conventional farming. With a growing population, demand for food is increasing and farmers are looking for ways to increase production, thereby driving the demand for agrochemicals in Africa. This has created an illegal market for inorganic pesticides that are harmful to humans and the environment. The largest producers and exporters of inorganic pesticides to Kenya include Europe

⁶ Of the 33 macadamia processors in Kenya, only two are certified organic.

and China through companies such as BASF, Bayer AG, and Syngenta.⁷ The use of agricultural chemicals listed on the PAN International List of Highly Hazardous Pesticides⁸ is banned in these countries, but they still find a large market in Africa, threatening food security, human health, and the quality of the environment.⁹ Ironically, Western markets set high parameters for the production and export of organic produce from Africa, while in return, they export harmful agrochemicals.

Exporting organic produce:

Organic farming in Kenya is largely an export industry. Because of the costs and risks associated with the sector, only a small proportion of Kenya's population can afford organic food. This limited purchasing power can be seen in the very few local markets for organic produce, which exist only in parts of affluent Nairobi, but not in local food markets. As a result, local farmers, like the macadamia farmers in Embu, produce for export only and may not be able to afford the processed nuts as a staple food themselves.

Despite the promise of increased agricultural productivity, food security and healthy living (for both farmers and consumers), higher returns from global markets for organic produce, conservation of natural resources, etc., the future of agriculture in Kenya is not being built around organic farming. Furthermore, organic farming and conventional farming are at odds with each other. The greening of agriculture promises a future where enough food is produced efficiently and sustainably for a growing population, while managing scarce natural resources. These greening promises often conflict with the existing situations and conditions of the future of conventional agriculture, where the use of chemical inputs tends to be standardised. The two agricultural futures are contradictory. For the majority of smallholders, the transition to an organic (certified) agricultural future is risky and the future of the greening agenda is uncertain.

Tanzania: contesting and rejecting Green Growth

Ideas of green futures, popularly conceived and interpreted alongside sustainable development, have a deeper history in Tanzania and are reflected

⁷ <https://africasacountry.com/2021/01/death-by-pesticide> ; <https://routetofood.org/pesticides-banned-in-europe-available-in-kenya-why-we-should-be-worried/> [Accessed 14.08.2021]

⁸ http://www.pan-germany.org/download/PAN_HHP_List_161212_F.pdf, [Accessed 08.08.2021]

⁹ <https://www.scidev.net/sub-saharan-africa/news/europe-banned-insecticide-threatens-africa-s-food-security/> ; <https://ehjournal.biomedcentral.com/articles/10.1186/s12940-019-0488-0>, [Accessed 16.08.2021]

across sector-specific actions and policies (United Republic of Tanzania [thereafter URT] 2016). Just as in Kenya, Green Growth and Green Economy ideas arrived in Tanzania around 2010 (Buseth 2017). At the time, Tanzania lacked a national definition of ‘Green Economy’, although various sectors in the country interpreted it as ‘the economy that improves the human wellbeing [*sic*] and manages the environment sustainably; that ensures sustainable development and does not encourage environmental degradation, reduces greenhouse gas emission, integrates issues of social, environment and economic aspects in the development process, and takes into consideration the sustainability of future generations’ (United Republic of Tanzania 2011a).

Being a country whose economy is highly dependent on arable land, Green Growth and Green Economy ideas found greater relevance in the agricultural sector of Tanzania aiming to spur market-oriented agricultural transformation. Without making explicit reference to the green agenda, Tanzania’s Development Vision 2025 (TDV2025) envisions a future where ‘the economy will have been transformed from a low productivity agricultural economy to a semi-industrialized one led by modernized and highly productive agricultural activities’. The ‘*Kilimo Kwanza*’ movement (meaning ‘Agriculture First’) became the most ambitious initiative through which Green Growth ideas were introduced. Soon afterwards, Green Growth made headway in the establishment of the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), a large-scale agricultural transformation programme targeting one-third of mainland Tanzania. In the following case study, we examine the conditions of implementation of Tanzania’s first Green Growth initiative under SAGCOT and consequent replacement of green with ‘brown’ ideas.

SAGCOT: a necessity or a fashion?

In 1999, Tanzania launched the Tanzania Development Vision (TDV2025). One of its main aims was to promote investment and innovative ideas regarding farming in order to attain a ‘high quality livelihood of its people and building a competitive economy capable of producing sustainable growth and shared benefits’ (URT 1999). The *Kilimo Kwanza* initiative, established in 2009 as a strategy to make use of the massive arable land that was not under cultivation, was partly implemented through TDV2025. Any developments that followed after 1999 were aimed at helping to realize Vision 2025 through sectoral developments and improvements.

In 2013, Tanzania launched the SAGCOT Green Growth Investment Framework under the auspices of a technical team of eco-agricultural partners. The SAGCOT blueprint served as a conscious strategy guiding SAGCOT implementation, justified by the need to control large-scale investment in agriculture in order to avoid undesired environmental problems. Awareness

of the importance of green futures was articulated in environmental narratives that emphasized that agricultural sustainability depends on a sustained environment. The ‘green print’ therefore targeted reduced use of industrial inputs in agriculture to make the environment productive but at the same time sustainable. It aimed at building more resilient agricultural systems in a managed environment.

Whether all these strategies were implemented out of necessity or in the name of fashion, the ‘green print’ notes that, ‘around the world, governments, civil society, and the private sector are working together to develop and implement Green Economy and Green Growth Strategies to generate equitable, sustainable economic development’ (SAGCOT 2013; 9). This statement begs an important question. It does not show whether Green Growth was implemented because Tanzania wanted it, or rather because it was the fashion of the day. Essentially, this was a development blueprint that countries worldwide wanted to follow by greening their development policies.

Perhaps this perceived lack of ownership mixed with political ambitions explains how quickly the ambitious SAGCOT Green Growth Investment lost favour only four years after its launch. In 2017, a counter-plan for industrial development came into play (Baya & Jangu 2017), which departed from the SAGCOT ‘green print’ by focusing on industrial growth and means of controlling environmentally associated challenges. The Late President John Pombe Magufuli completely shifted focus from rural-centred development models articulated in earlier development policies, especially in the *Kilimo Kwanza* policy documents, to the creation of an industrial base, as articulated in his election manifesto for the 2015 general elections (CCM 2015). Magufuli hardly said anything about developing either the *Kilimo Kwanza* strategies or the SAGCOT package. He changed the tune to one of industrial development devoid of agricultural linkages although agriculture was also an important aspect for industrial growth. The environmental guideline produced in 2017 was a perfectly predictable effort. Although it did not cancel the SAGCOT initiative, the government did not do much to push it forward either. In this case, what followed from the hesitancy of government participation in the SAGCOT development agenda resulted in a change in the tone of approach to development, from a green to a ‘brown’-futures outlook. While the SAGCOT ‘green print’ elaborated areas for agricultural investment and environmental sustainability, the industrial approach in 2017 provided guidelines for where investors should consider establishing industries and for how to make the environment sustainable. Unfortunately, these two main policy documents on major production sectors do not refer to one another.

In 2021, a third five-year development plan was launched covering the period 2021–2026. This plan does not mention agriculture in general or

SAGCOT in particular among the focus areas. The main emphasis, as with its predecessor plan 2015–2021, continues to be on industrialisation, infrastructure, tourism, and using internal resources for national development (URT 2021). That is to say, during the entire implementation period nothing much will be done to promote agricultural development. The plan does not even mention ‘green futures’, ‘Green Growth’ or ‘green corridors’. Instead there are several mentions of ‘industries’, ‘industrialisation’, and infrastructure.

Again, in her 57-page speech to the parliament, President Samia Suluhu Hassan mentioned nothing on green futures or agricultural Green Growth. However, she spent considerable time discussing agriculture in general, though with no mention of SAGCOT or any of its associated projects (Hassan 2021). On industrial development, the sixth phase president Samia Hassan reiterated that the focus would now be on developing industrial parks to stimulate production, transportation, and marketing of produce. The parks will be built in potential areas – areas with infrastructure connecting to market outlets in the East African and SADC regions (Hassan 2021, Lugongo 2021). This is a complete departure from the 2011 integrated industrial development strategy 2025 that linked together agriculture through *Kilimo Kwanza* and SAGCOT with industrialisation (URT 2011b).

Tanzania’s current development plans therefore indicate departure from Green Growth, particularly with reference to agriculture. They also indicate that Green Growth is not something conceptualised out of necessity but rather something that follows global fashion to attract foreign funding. The adoption of Agriculture Green Growth (AGG) for Africa in the 2010s was considered a panacea for addressing recurrent famine, drought, and environmental limitations on agricultural productivity, but implementations have been less serious and dynamic than they could have been. Countries may have opted for it hoping to revolutionise agriculture and increase yields of agricultural produce, but in the end little can be registered in the way of achievement in that regard.

Green Growth actors and drivers in the SAGCOT context

What may initially appear unclear is whether the ideas of development were internally generated and institutionalised instead of being personalised or imposed from somewhere else. Tanzania embarked on green approaches as soon as these ideas gained global currency in the 2010s. This was the time when the *Kilimo Kwanza* framework was already in place and a green-future strategy was meant to support its development. The conceptualisation and launching of SAGCOT was supported by international partners together with the state at the time. SAGCOT was conceived as a public-private partnership between the government of Tanzania, development agencies such as UK Aid, the World Bank, USAID, the Royal Norwegian Embassy, the Irish Embassy,

and several large agribusiness corporations including Unilever and Yara (a Norwegian fertiliser company) (see Bergius *et al.* 2018). Global in nature, fine-tuned in terms of local processes, the Green Growth agenda has nevertheless lost focus in Tanzania's development since 2019 during the reign of the late President Magufuli.

Part of the 'failure' of the project related to the government's refusal to receive more loans from the World Bank to inject into the implementation of the SAGCOT.¹⁰ This is in stark contrast to the Kenyan situation where donor funds are received but little is seen in terms of green-growth implementation across sectors. For the Tanzanian case, political dynamics play a major role in the implementation of green futures. Arguably, SAGCOT was built on the preferences of President Jakaya Kikwete, and the regime shift in 2015 meant a change in priority development areas.

Since the early 2000s, the greening of Tanzania was 'politically' celebrated without seeing the means to its end (Chung 2018, Tups and Dannenberg 2021).¹¹ Contrary to the promises, proposed green initiatives have enormous effects whether implementation has been realised or not. For instance, the slowed-down implementation of the SAGCOT has created losses to associated developments that emerged as part of the vision expressed within the plan (Tups and Dannenberg 2021). These speculative realities come at a time when the current government has said nothing about whether developments in the clusters will continue or not.

Returning to the question of whether Tanzania adopted Green Growth ideas out of necessity, or due to pressure, or because of collective global action reflects on how projects were conceived and funded. The major drivers in finances are mostly global actors who are seemingly caught up in a competition over investing money in local African contexts. The Green Climate Fund, for example, funds implementation of Green Economy development in the Simiyu Region, focusing on achieving sustainable provision of water and improving sustainable farming in the region.¹² The fund, which operates in developing countries to help address the threats of changing environmental scenarios, is made progressive by contributions from developed countries in an effort to promote global governance – one of the aims of the Green Growth agenda.

In this way, global action comes to operate on both local and global stages. The Global Nature Fund has invested some money in the Kilombero valley to

¹⁰ *The Citizen*, Tanzania Government Cancels shs.100 bn SAGCOT Scheme, 17th May 2019.

¹¹ See for example <https://foodfirst.org/putting-agriculture-first-without-farmers-and-land-reflections-on-tanzanias-road-to-green-revolution/> [Accessed 16.8.2021]

¹² <https://www.greenclimate.fund/project/fp041> – [Accessed 19.8.2021]

implement agriculture and conservation and to improve the livelihoods of the people (Global Nature Fund (n.d.)). Conservation activities are implemented in collaboration with the African Wildlife Foundation. Other financing bodies include but are not limited to the International Union for the Conservation of Nature (IUCN 2019), Green Finance, the World Bank, foreign governments, and many others.¹³ While such contributions come from outside, little may be available from the national coffers – meaning that projects may be lacking in terms of a sense of local ownership and sense of continuity, because they depend on availability of foreign funding. Current records indicate that over the past years of implementation, the private sector has invested approximately €700 million in the SAGCOT, with no financial support from the government.¹⁴

Tanzania's political rhetoric, and the difficulties of greening agriculture through SAGCOT

Greening agriculture is a political rhetoric of rural modernisation and future-making. These concepts are well recorded among government officials, investors, and progressive farmers, who are relatively few in number and account for a far smaller quantity of produce grown than peasants, who constitute more than 65 per cent of the entire labour force in Tanzania. Ideas of growth and development vary between government theorisations and peasants' real-life experiences. This is the central cause underlying whatever misunderstandings each side may have that in turn leads to each side accusing the other of being a barrier to development. Fieldwork in the Kilombero valley, for example, has indicated that peasants have their own approaches to and ways of implementing development, which in the official government view may be seen as conservative. For example, studies (West and Haug 2017, Gallagher 2020) have indicated that local growers, villagers, and other actors in the implementation stage challenged the top-down approach of the SAGCOT framework.

While the government encouraged large-scale foreign and local investors in the Kilombero valley, local government authorities and villagers challenged the central government's decisions by refusing to cooperate with investors or to give them land for investment opportunities. Local people considered private investment as land alienation and did not want it to happen. Land deals have characterised the whole process, making it irrelevant to peasants. Critics of

¹³ <https://www.globalnature.org/en/green-growth-tanzania> – [Accessed 19.8.2021] <https://www.iucn.org/news/water/201902/blog-mainstreaming-inclusive-green-growth-tanzania> accessed on 19th August 2021, <https://www.greenfinanceplatform.org/country/tanzania> - accessed on 20th August 2021.

¹⁴ <https://sagcot.co.tz> [Accessed 21.8.2021]

the SAGCOT packages argue that focusing on large-scale investment at the expense of smallholder farmers was a miscalculation of the project.¹⁵

In 2009, when *Kilimo Kwanza* came into being and private investment in agriculture became massive, Tanzania experienced increased land disputes between different land-user groups, notably those involved in agriculture, pastoralism, and conservation (Odgaard 2002, Kusiluka *et al.* 2011, Goldman *et al.* 2014, Magigi and Drescher 2010). Disputes concerned investors taking huge chunks of land without developing them, and some of them ended up leasing the same lands to smallholder peasants. In this way, the local people considered the approach as not being for them: it was for the government and foreign investors. Endorsing the SAGCOT Blueprint in 2010, President Jakaya Kikwete said: ‘I am proud to say that because of the importance we attach to the SAGCOT initiative, my government was the first to commit funding ahead of all partners. We in government are convinced that the initiative supports our objectives for Tanzania Green Revolution’ (SAGCOT 2011: 5). To this end, by 2030 SAGCOT had to attain certain goals: to have 350,000 hectares under cultivation, transform smallholder farmers into commercial farmers, create more than 420,000 new jobs related to agricultural production, lift 2 million people out of poverty, increase annual revenues from agricultural produce to 1.2 billion, and ensure regional food supply. These were ambitious imaginings and expectations to be realised in selected fertile lands of Tanzania, with Kilombero being one of them. Such expectations were to be realised by both large-scale investments and small-scale producers. The only challenge here was that peasants did not sing the same tune as the government rhetoric.

The ideas and imaginings of development were statist and elitist-centred, considering the local people as passive actors with regard to whatever imposition came from above. Peasants view development differently, and imagine futures in terms of their own perspectives. Local articulations in Kilombero make it very clear that the interest lies in obtaining reliable and unrestricted markets for whatever they produce.¹⁶ They have no idea of development blueprints. They even consider government efforts in the valley as not helping them much, as they continue to face problems concerning agricultural production, contrary to the views of the government, which believes it is making transformations in the rural areas.¹⁷ Although there is divided opinion on the SAGCOT among

¹⁵ https://www.africa-confidential.com/article-preview/id/5137/Concern_over_contract-farming [Accessed 19.8.2021]

¹⁶ Interviews with, KT2, Michenga, 5th November 2020 and KT10, Nawigo – Malinyi, 9th November 2020.

¹⁷ Interviews with, KT14, Ngota, 10th November 2020, KT15, Ngota, 10th November 2020, KT16, Igawa, 11th November 2020 and KT1, Michenga, 5th November 2020.

both proponents (West and Haug 2017) and critics alike, the challenges that it currently faces give energy to those who initially saw it as ill-conceived (Maganga *et al.* 2016, Mbunda 2016). Bergius *et al.* (2018) celebrated SAGCOT as a leading example of Africa's Green Growth approach and as an investment blueprint for similar projects in Africa. However, what exists on the ground now makes it appear that travelling ideas are not always well understood; nor can they always be sustained in destination areas. They travel more due to collective action among foreign donors and national development agencies than necessarily as a way of solving local problems. Institutionalisation and formalisation remain contested among different actors, making it difficult to become progressive and successful (Buseth 2017, Sulle 2020).

Moreover, public-private partnership in the SAGCOT seems to have been a challenge to its implementation. As indicated in other sections of this contribution, much of the funding comes from private investors. The problem intensified when the government changed its views on receiving and administering the matching grant from the World Bank in 2019, and no statement has been offered by the government on any future funding.¹⁸ Other concerns were raised about land security and the protection of local breeds that under SAGCOT were about to be modified. The role of multinationals such as Monsanto, the agrochemical company Yara, the Gates Foundation, and the Alliance for Green Revolution Africa all added to the scepticism on the part of the local public, who considered the project as a large-scale form of land grabbing. Full implementation of the SAGCOT meant trickle-down influence on large-scale and small-scale investments in the region based on the operations of corridors of development, but in reality this is not the case (Hartmann *et al.* 2021).

As to what indicates the pulling out of government funding in the projects, the sustainability trail is illusionary. The fifth and sixth Tanzanian governments made a U-turn in development priorities that weakens the ambitious SAGCOT multi-partnerships. Successful implementation of SAGCOT depends on strategic partnerships coming from agribusiness companies, farmers' organisations, civil-society organisations and government agencies.¹⁹ It seems that the present state lacks synergy in terms of full energy investment from all partners. Agribusiness companies and large-scale farmers are in the front line, pushing for the realisation of SAGCOT objectives. Small-scale farmers, who are also crucial partners, have less idea about what it means beyond

¹⁸ https://www.africa-confidential.com/article/id/12602/Farming_gamble_fails [Accessed 15.8.2021]

¹⁹ <https://sagcot.co.tz/index.php/who-we-are/> and <https://sagcot.co.tz/index.php/partnership/> [Accessed 20.8.2021]

their receiving of fertilisers and improved seeds. Lack of cohesion amongst partners worsened in 2019 when the government refused to take a loan as a 'matching grant' in the project. Investments that are already on the ground in implementation sites face uncertain futures if the synergy does not operate as expected. The multiplicity of the partners themselves is a challenge, given that mutual understanding is necessary to operate as one team. SAGCOT was built on 52 private-sector companies, 10 apex and farmers' organisations, 34 development partners, foundations, research organisations, and CSOs, 15 Ministries of the Government of Tanzania, 12 Government Regulators, three Government Agencies, and four Public Financial Institutions.²⁰ Harmonisation alone is a big challenge. Government actors for their part are too numerous to operate with success. What we want to point out here is that the dim future does not only result from funding issues but is also partly due to an excess of organisational structures that fail to provide cohesion and which may involve unnecessary bureaucracy.

Looking into the future: Green Growth in the shadows of activism and development

Green Growth ideas exist in the margins of local planning as a prerequisite for going global, with three main overarching aims: promoting economic development with environmental sustainability; redistributing wealth and improving the livelihoods of the poor; and promoting global response to environmental impacts. Despite the activism and critiques against the formulation of these development corridors, the government of Tanzania looks toward the future with determination. Following five years of operation of the Ihemi Cluster, in 2017 the Mbarali cluster was inaugurated, while the Kilombero Cluster came into operation in 2018.²¹ These are among the six major clusters in the SAGCOT corridor, and target different production outcomes depending on the geographical endowments of each area. The other clusters in the queue are Ludewa, Rufiji, and Sumbawanga, the implementation of which will make the programme a fully operational undertaking. The reason why some in the government and social groups consider the scheme a panacea results from the 2017 evaluation that indicated positive development. After six years of

²⁰ <https://sagcot.co.tz/index.php/partnership/> [Accessed 21.8.2021]

²¹ Daily News, Friday 27th October 2017, Boost for Peasants on horizon as all's set for launch of Mbarali Cluster, the second; Mtanzania, 27th October 2017, SAGCOT Kufungua Kongani ya Pili Mbarali; HabariLeo, 26th October, Kongani Mpya Kufunguliwa; The Citizen, Thursday 29th October 2017, SAGCOT Opens Mbarali Cluster Today to boost Agriculture; <https://sagcot.co.tz/index.php/event/launch-of-the-sagcot-kilombero-cluster/> [Accessed 21.8.2021]

operation, the SAGCOT was considered to have been successfully implemented, hence the push to open up the second and third clusters in 2017 and 2018, respectively. Up to October 2017 a total of 488 million USD had already been invested in the projects.²²

Discussion: The ‘green agenda’ – lost in translation?

The examples of Kenya and Tanzania give evidence of a huge gap between the rhetoric of the green agenda and the reality of what is actually achieved in these two countries. The case studies show that green development is not at all a harmonious and peaceful transition towards a better world, as the concept itself would promise, but that these processes are on the contrary quite conflict-ridden and even violent. They go along with the establishment of large dams and irrigated farms, the eviction and marginalisation of smallholders, and a massive transformation of rural livelihoods. This is exactly the opposite of the original philosophy, which envisioned green transformation as an approach intended to harmonise environmental, economic, and social objectives. The East African examples do not stand for harmony, but rather for attempts to hide the contradictions between the three cornerstones of the green philosophy. The examples have shown that the emphasis of Green Growth is on growth, whereas the social and environmental dimensions are often not given the same attention, or they are merely treated as side effects. The cases of Kenya and Tanzania reveal a striking difference between the two countries. While the Kenyan government really made efforts to transform the country into a green economy, the Magufuli government in Tanzania clearly set its priorities on industry-led growth, with little concern for agriculture or anything that looks green.

This observation brings us back to our initial question concerning the purpose of green visions in the context of development and future-making. Quite obviously, many of the visionary policy papers of recent years have been collections of promises and wishful thinking rather than feasible programmes. The green agenda is therefore highly contested in public debates as well as in the scientific literature. Some hope that green approaches can provide feasible alternatives to current destructive tendencies, believing they will help to solve some of the existential challenges already being faced by African societies now, and even more so in the coming years (OECD 2010, Auktor *et al.* 2020). Others view the talk of green futures as just another ‘empty signifier’ in the context of international development, a ‘green-washing’ to disguise the

²² Peter Keasi, How SAGCOT Changes Farming, Daily News, Saturday 4th November 2017.

neoliberal interests that are driving the dynamics of resource use in Africa (Buseth 2017, Bergius *et al.* 2017).

The comparison between the two neighbouring East African countries is interesting because it shows how differently rural areas and agricultural development may be treated in national planning. The succession from President Jakaya Kikwete (2005–2015) to President John Magufuli (2015–2021) meant a radical shift from ‘agriculture first!’ to industry-led development, or in other words, from green to brown growth. Green Economy concepts made their entry into Kenya and Tanzania more or less at the same time in the 2010s, when they featured in the specific country reports in the run up to the United Nations Conference on Sustainable Development, Rio+20 (United Republic of Tanzania 2011a, Akinyi Kaudia *et al.* 2012). However, Kenya and Tanzania show differential treatment of these concepts with regard to translation, modification, and implementation. Kenya indicates practices of adoption at both national and local levels while Tanzania indicates practices of rejection at the national level. In both countries, international actors and their local affiliates continue to push the Green Growth and Green Economy ideas, irrespective of their taste at national and local levels and despite the implementation challenges that emerge from the conflict between ‘green’ initiatives and country-specific development priorities.

We propose that concepts of green futures should be understood as travelling models which are translated into African contexts from abroad, similar to the paradigms of adaptation to climate change (Weisser *et al.* 2014). The cases presented in this chapter give evidence of the green agenda as a travelling model that is translated into national planning in Kenya and Tanzania. The reason why the model is adopted by African politicians and inscribed into national planning is often not simply its suitability for local conditions, but the support it gets from international donors. Green models of development go along with substantial funds, which attract the interest of influential policy-makers and therefore make them a target for elite capture. Green Growth and Green Economy approaches promise not only to be in everyone’s interest in Africa, but to serve a global common good. The case studies illustrate that the green model of development does not travel easily from the North to the South, but rather is translated, modified, locally appropriated, or rejected. The travelling model undergoes a rough journey, which has diverse consequences in the places where it eventually arrives. The adoption of this model has multiple impacts on rural development, which are often far away from what had originally been envisioned.

Conclusion

What does the study of green development initiatives in Kenya and Tanzania tell us in regard to the overarching question of how futures are envisioned and shaped in rural Africa? Green futures appear highly desirable, because they seem to be in almost everyone's interest. In the face of climate change, there can be no doubt that the environment plays a crucial role in shaping the future. Yet, as our case studies have shown, the appropriation of green concepts of development often remains superficial; it changes the colour, but not the content, of development. The rhetoric of green futures is widely used in public discourse, not only in Africa, but globally. It promises economic growth in harmony with human well-being and the environment.

The case studies describe the development arena at the national level in Kenya and Tanzania as being like a battlefield of competing developmental ideas. They show that 'green' concepts are often used and misused to tap into international finance, and to legitimise projects that serve other interests besides their declared environmental purposes. Understanding 'green' ideas should therefore not stop at the juxtaposition of rhetoric and reality, but acknowledge the hidden agenda of specific interests, political purposes, and strategic alliances.

Taking the example of green concepts, the chapter shows that African futures are often not shaped by Africans alone, but in conjunction with foreign actors and global entanglements. However, it would be too simplistic to view green transformations in Africa as just another example of foreign domination and neo-colonial dependency. It is not that African governments are forced to follow the new directions of the green agenda. Rather, they respond to the incentives and opportunities offered by global support structures to select and implement those elements of environmentally friendly development that fit into national development plans. Kenya's Vision 2030 and the African Union's Agenda 2063 have not simply been designed as copies of global policy papers. The influence is more subtle and differentiated, as can be seen from the differences between the two East African countries. The green paradigm is partially adopted, modified, or rejected, so that it fits into national plans, power structures and interests. The process of its translation into national contexts reflects foreign influences and incentive structures just as well as the interest of policymakers at the national level.

To explain the external influence, this chapter refers to the conceptual framework of travelling models. It focuses on approaches of 'Green Economy' and 'Green Growth', which were originally designed outside of the African continent, before they were transferred and locally adopted in various settings all across that continent. Such a transfer of blueprints is not unusual in international development cooperation. Conceiving of it as a travelling model

helps to explain the gap between rhetoric and reality. The rhetoric of green futures does not mean that it is built on empty promises or lies. Instead, the rhetoric should rather be understood as a tool to convince the wider society of a common goal, or in other words, as an instrument to ‘sell’ the future (Colonomos 2016).

With respect to the future of green ideas, this question remains open. Notably, there are many ongoing activities relating to these concepts, including efforts to create the Africa Green Growth Forum as well as the launching of Africa’s Green and Climate Resilient Development (AGREED) programme with the support of the World Bank and African Development Bank. How this will fare across nations in the Global South is certainly difficult to foretell. However, what we learn from the case studies is that these concepts are gaining importance in politics; they inform visions; and they can be used, modified, adopted or rejected either in part or entirely.

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The Growth-Corridor Vision and its Realities – Regional Economic Impacts in Namibia and Tanzania

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Introduction

Growth corridors are currently among the most popular spatial-development initiatives of future-making in Africa. It is expected that growth corridors will enable mobilization of private and public stakeholders to create a critical mass of investment, and this goes hand in hand with a promise of modernity and economic growth (Gálvez Nogales and Webber 2017). Though growth corridors are imagined as game-changers, scholars increasingly criticize a gap between vision and reality, as well as the general underpinnings of corridor paradigms. Future-making through corridors often occurs under power imbalances and unequal participation possibilities. It can ultimately drive processes that create uneven spatial outcomes (Chome *et al.* 2020).

Based on case studies of the Walvis Bay-Ndola-Lubumbashi Development Corridor (WBNDLC) and the Southern Agricultural Growth Corridor of Tanzania (SAGCOT), this contribution contrasts the vision and reality of both corridors by focusing on two particular value chains in agriculture and tourism. The results presented summarize the research work of the project ‘Futures in Chains: Socio-economic impacts of growth corridors’ within the framework of the Collaborative Research Centre ‘Future Rural Africa’, which was funded by the German Research Foundation. A mix of methods was used, including expert interviews, focus group discussions, and the analysis of household surveys. More detailed information on the methods used can be found, for example, in Kalvelage *et al.* (2021, 2022, 2023), Hartmann *et al.* (2021), Hulke *et al.* (2020), and Hulke and Revilla Diez (2022).

Our results show that both tangible (e.g. roads, railways, bridges) and more tacit (e.g. flow of finance) corridor features have affected everyday economic practices as they take shape and materialize in specific spaces and along specific value chains. Nevertheless, for both corridor initiatives, a lack of (visible) implementation as well as a selectiveness that favours only a few value chains and chain actors is an existential challenge that threatens their political, social, and economic legibility. We begin by outlining imaginaries of corridor-making and their expected benefits in the African context. With regard to our two case studies, we then reflect on these expectations from a value-chain perspective. Ultimately, the tension between the vision and the reality of corridors is addressed, which helps to understand where and for whom corridors unfold. It is therefore crucial to consider the actors that were involved in the making of the corridors and to question how corridor imaginaries are materialized, who benefits, and who remains excluded. In short, this chapter offers a critical analysis of how growth corridors function in practice, contrasting ambitious development visions with the grounded experiences of local actors. By examining agricultural and tourism value chains, it highlights both the transformative potential and the exclusionary tendencies of corridor development. The findings underscore the importance of unpacking the political economies and spatial selectivities that shape who gains and who loses in the making of Africa's development futures.

Imaginaries of growth corridors: visions of high modernity

Corridor visions and practices of corridor-making in Africa date back to early colonial times. Whereas the basic idea of exploiting resource-rich regions, in terms of either minerals or fertile land, have not changed, the underlying logics of corridor initiatives have varied fundamentally over time and space. Three major periods of corridor visions can be distinguished, namely the colonial, the post-colonial, and the contemporary (Griffiths 1997, Nel and Rogerson 2016).

Colonial corridor imaginaries laid emphasis on extracting and transferring as much of the natural resources from the colony to the European colonizer as possible, often violently, 'with a consequent destruction of economic and social life' as exemplified by Jewsiewicki (1983). Take for instance the Congo River corridor, which was established at the Berlin conference in 1884/1885. Due to its richness in rubber, ivory, and minerals (gold, tin, copper, diamonds), access to the Congo basin was a top priority for European powers (Makori 2017, Ahmad and Awan 2017). As the Congo River is only navigable from the ocean as far upstream as Matadi, a railway network was built to connect the copper mines of the hinterlands with marine access. Despite these plans, the long distance, low capacity, and high costs never allowed the railway connection

to be used for substantial copper exports. Instead, the Cape railway via South Africa became the preferred route of extraction (Griffiths 1997). Another colonial corridor project, which was never completed, was the Cape to Cairo railway promoted by the British colonialist Cecil Rhodes, who was trying to secure the southern states of the African continent to the British Empire. In order to connect neighbouring territories, the corridor followed a military purpose, bringing supplies and troops for territorial expansion and commercial interests (Darwin 1997, Griffiths 1997). This coloniality of corridors, which has partly endured up until today (Enns and Bersaglio 2019), deserves a closer look. In terms of practical implementation, even contemporary corridors need to be constantly legitimized against notions of (neo-)colonial persistence. In terms of researching corridors, the *long duration* of infrastructural exploitation demands that research into the corridors emphasizes the (neo-)imperial contingencies under which the corridors are mobilized (Aalders 2020, Lesutis 2020).

After independence, African leaders in the 1950s and 1960s saw infrastructure-based development as a spatial technique to boost economic growth. This optimism toward mega-infrastructures was based, on the one hand, on the rapid industrialization of the Soviet Union, which occurred in a similar manner (Mold 2012). On the other hand, Western policy advice inspired by Rostow's (1960) approach of 'Stages of Economic Growth' and by Rosenstein-Rodan's (1943) 'Big Push' theory has emphasized the role of infrastructure investments as a driver of modernization and self-sustaining growth. Growth corridors are envisioned to integrate places and people and to connect them to global markets (Dannenberg *et al.* 2018, Zoomers and Westen 2011). Improved connectivity is seen as crucial for creating economies of scale and trickle-down effects, and to allow rural places to increase and specialize in different economic sectors (e.g. agriculture, tourism). It is therefore assumed that the development of seemingly 'disconnected' regions may not only allow them to benefit from the gains of globalization, but also promote endogenous innovations and foster the growth of related firms. Through such spatial concentration processes along corridors, especially employment and economic spillovers are therefore promoted as corridor promises.

In contrast to such teleological aspirations to envision rural Africa's future through the development of corridors as 'dreamscapes of modernity' (Jasanoff and Kim 2015, Müller-Mahn 2020), previous African mega-infrastructure projects of the 1960s and 1970s have failed (Mold 2012). The historical experience in postcolonial Africa shows that the majority of infrastructure investments were neither sustainable nor catalytic for economic development. It seems that the fictional expectations, or 'imagined futures' (Beckert 2016), based on Soviet alternatives or neoclassical theory neither materialized nor benefitted larger parts of the population. According to Mold (2012), these

failures are explained by high dependence on foreign finance, poor project management and domestic expertise, and rent-seeking behaviour, which resulted in unsustainable growth and incomplete projects.

Considering these failures, growth corridors are nevertheless experiencing a comeback latest since the turn of the millennium. With support from African governments, international donors, and investors, more than 30 growth corridors are currently being developed or planned throughout Africa (Nel and Rogerson 2016). Today, growth corridors go beyond solely infrastructural development and are designed much more broadly under the umbrella of spatial development initiatives (Dannenberg *et al.* 2018). In Africa, the concept of growth corridors strongly originates from the South African Spatial Development Initiative (SDI) Programme (Ramutsindela 2010). In Nelson Mandela's vision of an economically integrated Africa, growth corridors were meant to connect rural and urban areas in order to create functioning regional markets across Africa (Tate 2011). Thus, growth corridors became an instrument to envisage a better future, to 'boost economic growth, diversify economies, expand exports and foreign exchange, increase skills and technology transfer, and create jobs and boost local incomes' (Kuhlmann *et al.* 2011: 6). The Southern African Development Community (SADC) took the lead in defining 16 corridors. In 1998, the African Union adopted the concept for the entire continent and further promoted it through the New Partnership for Africa's Development (NEPAD). This led to the establishment of the WBNLDC by the governments of Namibia and South Africa in 2000/2001 and was later followed by the launch of similar corridors (including SAGCOT) on the East African seaboard (Mulenga 2013).

This recent comeback of corridor-based development is further underpinned by Pan-African aspirations of continental unity between African sub-regions, which also partly drove the post-liberation phase of corridor development. The launch of the African Development Bank's Programme for Infrastructure Development in Africa (PIDA) and ongoing preparations for PIDA-2 promote investments into corridors as a solution to the 'Quest to Integrate Africa' (AFDB 2019). PIDA-2 seeks to establish cross-border infrastructures based on the guide-lining criteria 'regional integration', 'inclusiveness & sustainability', and 'economic & financial impact' (AU 2020). Accordingly, the most recent rebranding of corridors can be interpreted as a culmination of the process of African corridors once more becoming a dominant planning paradigm over the last two decades. Whereas the move from transport corridors towards development corridors has been discussed as a 'new generation of growth corridors' (Dannenberg *et al.* 2018), their latest branding clearly goes beyond a predominantly economic focus by promising a 'holistic planning' that also acknowledges inclusiveness and sustainability impacts through funding criteria such as gender sensitivity, migration, youth employment, and climate

friendliness (AU 2020). By tying ever more impact dimensions to corridors, corridor visions have therefore increasingly become sensationalized, but at the same time depoliticized in such a way that corridors are put forward as a multidimensional panacea, and without discussing and allowing alternatives, they are just implemented.

Within the promised 'holistic' planning, contemporary corridors include the promotion of specific value chains. Through the sectoral targeting along value chains, governments and corridor planners attempt to encourage industry-spanning economic interventions that can motivate different value-chain actors to invest and settle along the corridor and basically use value chains as tools of economic, and also social and environmental upgrading (Cf. Barrientos *et al.* 2011, Humphrey and Schmitz 2002). To support value-chain-driven upgrading processes, private public partnerships (PPs) constituted by nation-states, multinational firms, and international donors are targeted as key actors in funding and implementing corridors. Especially global finance, both from private and public sources, is seen as a means of overcoming the general lack of investments within corridors and along their value chains, but also as a way to encourage a tighter integration into global markets (Gálvez Nogales and Webber 2017).

Against these optimistic expectations, there is a growing body of literature challenging the taken-for-granted assumption that value-chain integration always generates socioeconomic benefits. Critical studies draw attention to unintended effects or even dark sides of value-chain integration through corridors. Fundamental to the understanding of global value chains, power asymmetries can lead to global inequalities as they intensify the uneven geographical and social distribution of value-added activities. As Breul *et al.* (2018) have shown, the territoriality of global value chains is significant in order to understand how rents along the value chain are distributed. Put simply, a value chain connects different places with different functions and capacities affecting the creation, transfer, and appropriation of value, and with that also upgrading possibilities of upstream/backward-linked chain places and actors. While some places and actors can filter out high-value activities, they do so at the expense of others, which are left with low-value activities such as resource extraction or labour-intensive production. Upgrading possibilities are then restricted through filtering processes and rarely trickle down to upstream actors and places automatically, but they can just as well drive the uneven accumulation of capital along value chains (Breul *et al.* 2018).

Expanding these critiques of uneven accumulation processes along value chains even further, some authors propose a more integrated analysis of local value-chain impacts, paying attention not only to vertically and tightly integrated chain actors (Bolwig *et al.* 2010). External actors, expelled actors,

nonparticipants or excluded actors also need to be considered when developmental outcomes are analysed. Power relations, inequality, resource access, and empowerment between chain participants and their communities in which they are located are additional and necessary horizontal elements in order to assess the economic, societal, and environmental impact. In order to overcome the ‘inclusionary bias’ of value chain research (Bair and Werner 2011) it is proposed to add a livelihoods perspective in order to assess the unintended impacts of value-chain integration (Hulke *et al.* 2020, Vicol *et al.* 2018). This perspective allows the comparison of outcomes of value-chain integration by acknowledging the role of alternative livelihood strategies (e.g. local and regional value chains) which might otherwise be suppressed by powerful external actors (lead firms, NGOs, national ministries) or regional institutions.

Bringing value chains to the foreground has hence not only emerged as widespread logic of imagining and practicing contemporary corridors; it can also serve as a simple method to understand *where* and *for whom* growth corridors materialize. By asking *where* corridors actually materialize, the geographically uneven impacts of corridors can be distinguished. By asking *for whom* such materializations take place, it becomes further visible and explainable how corridors have effects on different actors regardless of whether they are integrated into or excluded from corridor imaginaries.

Corridor realities: the impact on agriculture and tourism

Walvis Bay-Ndola-Lubumbashi Development Corridor in Namibia

Namibia’s long-term development plan, Vision 2030, articulates the ambition to transform Namibia into a ‘logistics nation’. By providing a complete package of international logistics services, goods from the SADC community are to be exported via the ports of Walvis Bay and Lüderitz, thus competing with the large ports in Durban and Cape Town (JICA 2015). Namibia has concluded agreements with the landlocked SADC-members Botswana, Zambia, and Zimbabwe on the allocation of dry ports to enable these countries to engage in maritime trade. Four growth corridors connect Walvis Bay with neighbouring countries: The Trans-Kalahari Corridor (Botswana, RSA), Trans-Cunene Corridor (Angola), Trans-Oranje Corridor (RSA), and the Walvis Bay-Ndola-Lubumbashi Development Corridor (DRC, Zambia, Zimbabwe) (see map 5.1).

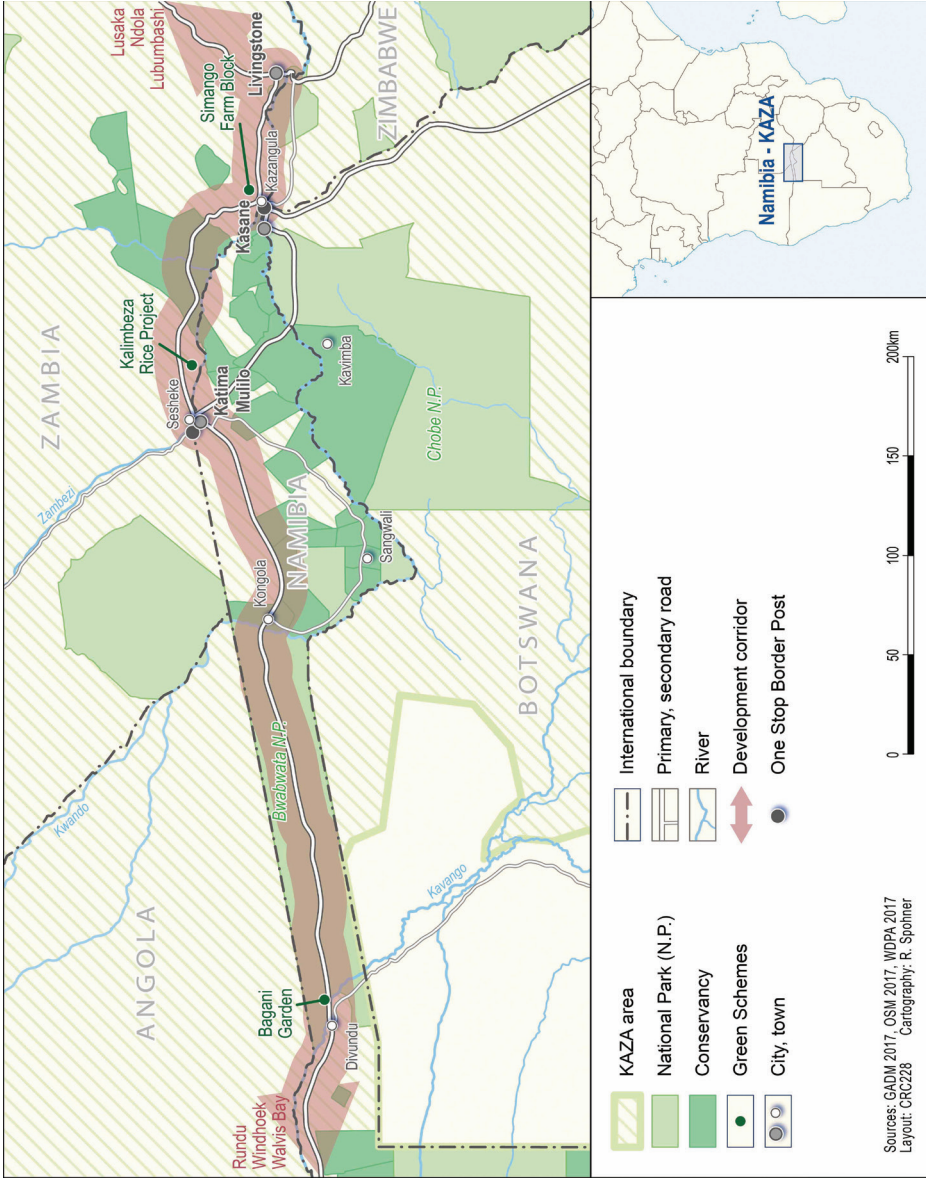
To increase the port’s throughput, the Walvis Bay Corridor Group was established in 2000 as a public-private partnership (PPP). The group is composed exclusively of Namibian members, including ministries, parastatal companies, and businesses associations, which are mainly from the logistics sector. The PPP form allows the Walvis Bay Group to pool resources and the authorities

of both transport regulators and transport operators, thus effectively serving as a one-stop shop for coordinating trade along the Walvis Bay Corridors. Based on the assumption that the more accessible the corridors are, the more goods will pass through the Walvis Bay port, cross-border trade is to be facilitated and the infrastructure developed to achieve a more time- and cost-efficient procedure. To equip Walvis Bay for its envisioned role as a regional logistics centre, a new container terminal for the Walvis Bay port was officially launched in 2019, doubling the current handling capacity from 350,000 TEUs to more than 750,000 TEUs. Mainly facilitated by a 200 million USD loan from the African Development Bank in 2013, the expansion enables for the handling of larger vessels of up to 9000 TEUs (NAMPORT 2019). The actual throughput in 2018/2019 was far below these figures; the two Namibian ports together handled only 150,000 TEUs (ibid). At Walvis Bay port, imports (65 per cent, Annual report Namport) currently account for a larger share than exports (35 per cent), indicating that much work has to be done if Walvis Bay is to be transformed into a gateway to international markets.

Since 2014, the Corridor Group aims to unlock the economic potential in the hinterland by providing a business-friendly environment along the corridors. The Australian consulting firm AURECON has drafted a corridor-development master plan for the WBNLDC that incorporates spatial development strategies: the installation of truck stops along the route, green schemes, agricultural hubs, and logistics parks are planned to increase the cargo traffic on the corridor (AURECON 2014). In addition, improvements in ICT and electricity connectivity as well as catalytic investments in key sectors such as agriculture, manufacturing, mining, and tourism are expected to stimulate economic growth in the hinterland. Katima Mulilo for instance, the capital of the Zambezi region, is to act as a logistical hub to facilitate cross-border trade (JICA 2015). The presence of a weighbridge for trucks and a large number of petrol stations indicate that Katima Mulilo fulfils its intended role. Moreover, the targeted promotion of the agriculture and tourism value chain is expected to increase value creation in the region.

Zambezi futures between nature conservation and agricultural intensification

A link between Namibia's coastline and the landlocked hinterland has been a goal since the days of the German colonists. In 1890, through the Helgoland-Zanzibar Treaty the German Empire acquired the Zambezi region as a part of a territorial swap with Britain. The German government envisaged to link the colony to the Indian Ocean via the Zambezi River, allowing trade with German Tanganyika (Lloyd 2010). In addition to that, the Zambezi region has abundant water resources and labour force urgently needed for expanding the German Southwest Africa protectorate, while large parts of Namibia are characterized



Map 5.1. The Walvis Bay-Ndola-Lubumbashi Development Corridor in the Zambezi region [Cartography R. Spohner].

by an arid or semi-arid climate (Zeller 2009). Walvis Bay and the adjacent Swakopmund served as entry gates for colonial troops and supply, but also functioned as a hub for the export of raw materials to the world market. The colonial administration connected the copper mines of Tsumeb in 1905 and the fertile soils around Grootfontein in 1908 to the railroad network leading to the coast. In 1909, German troops led by Hauptman Streitwolf reached the banks of the Zambezi river (Zeller 2009). However, after the troops realized that the Zambezi is not navigable to the Indian Ocean from Caprivi because of the rapids and due to its poor and difficult accessibility, this marked the end-point of infrastructure development towards the north east (Kangumu 2011). During the Apartheid regime, the Caprivi became a very important military base in the fight against the South West Africa People's Organisation (SWAPO). The militarization of Caprivi led to investments in infrastructure such as the airport, hospitals, and schools (Leggenhager 2015). As a result of the recommendations of the Odendaal commission, an unpaved road connection from Katima Mulilo to Western Caprivi was built in the 1960s. However, the Zambezi region continued to have only a peripheral status up until the 1990s, when the post-apartheid government decided to establish a tarred road connection. The construction of a bridge crossing the Zambezi River towards Zambia completed the corridor in 2004 (Kalvelage *et al.* 2021).

The improved infrastructure connectivity enabled lead firms of the tourism value chain to access the resources underlying the production of safari- and hunting-tourism packages: wildlife and a conservation landscape. Several legislations ensure the continuous reproduction of this resource base through the expansion of areas that fall under varying degrees of nature conservation (Kalvelage *et al.* 2023). Following the designation of national parks in 1990, the conservancy legislation of 1996 entitles rural communities to cluster and form areas with clear boundaries designated for the conservation of wildlife. In return for the implementation of conservation measures, these conservancies are granted rights to use natural resources and benefit from joint-venture agreements with entrepreneurs in hunting and safari tourism (Kalvelage *et al.* 2022). Large conservation organizations have successfully lobbied for the creation of KAZA in 2012, which serves as an integrated cross-border umbrella for existing conservation land uses such as national parks, state forests, and conservancies with the Zambezi region lying at its centre. These developments have driven the growth of the tourism sector in Zambezi. Starting from four accommodation establishments in 1990, the number has risen to 47 in 2018 (Kalvelage *et al.* 2021). Between 2004 and 2018, visitor numbers have doubled, reaching 60,000 (*ibid.*). Recent research has shown that during high season, tourism-related traffic on the corridor in Zambezi region accounts for 25 per cent of the total traffic. Yet, this traffic is directed towards Botswana, while

the corridor connecting Zambia is mainly used by trucks transporting copper, timber, and other goods (*ibid.*).

Despite the overall increase in tourism arrivals, a closer look reveals a more nuanced picture. Hunting tourism in the Zambezi region is governed by domestic actors from Central Namibia, but high quota fees are to be paid to the conservancies (Kalvelage *et al.* 2023). Regarding safari tourism, global lead firms cooperate with inbound tour operators that are mainly based in Windhoek and Swakopmund. Therefore, value from safari tourism is transferred to these major nodes along the corridor and beyond to the Global North. All in all, conservancies as local institutions are able to capture roughly 20 per cent of the value created from hunting and safari tourism due to benefit-sharing agreements (Kalvelage *et al.* 2022). While tourism taps growth potential from natural resources in the region, the development effect is limited: linkages to local enterprises are scarce, and only 3 per cent of Zambezi's workforce are employed in the tourism sector, predominantly in low-wage jobs such as receptionist, cleaning staff, or gardener (Kalvelage *et al.* 2021). Tourism-related revenues account for not more than 5.5 per cent of the total household income in the rural areas of the Zambezi region (*ibid.*). To put this figure into perspective, pension payments to residents of the region older than 60 are four times as high (*ibid.*).

Besides tourism, the Namibian government sets high hopes for the intensification of agriculture along the corridor. Top-down decision-makers, e.g. from the Namibian Ministry of Agriculture, Water and Land Reform (MAWL) articulate further investments in agricultural intensification in order to correspond to the visions of the Zambezi region as the country's food basket (Hulke and Revilla Diez 2022, Kiesel *et al.* 2022). Parastatal organizations under the umbrella of the MAWL, such as the Agro-Marketing and Trade Agency (AMTA), and the Namibian Agronomic Board (NAB) aim to facilitate smallholder farmers' market access and intensify domestic production through large-scale irrigation schemes (green schemes). However, green-scheme projects like Kalimbeza rice in the Zambezi region did not take off. The few smallholders working as outgrowers on the farm report immense losses of income in the last two years, and thus precarious livelihoods (Hulke and Revilla Diez 2022). This has been further aggravated by climate-change-induced droughts. Although agricultural intensification in the form of green schemes is visible in other regions along the corridor, rural livelihoods in Zambezi still mostly depend on (subsistence) small-scale agriculture. Processing activities (such as milling), packaging, and marketing of the agricultural value chain in the Zambezi region are almost solely bound to Katima Mulilo, where several local supermarkets, street vendors, and an open market are increasingly purchasing from local farmers (Hulke and Revilla Diez 2022).

Due to these recent endeavours by ‘regional lead firms’, a regional horticulture value chain is emerging – however, rather as an unplanned side effect of agrarian policies and top-down development visions (ibid.). Agrarian policies that aim to promote domestic value-chain integration of local farmers include protectionist border-closing practices, enforced by the NAB and AMTA. However, the same interventions tend to foster insecurities for both producers and traders due to their unsynchronized and unforeseeable character. Simultaneously, endogenous collective action among farmers in a regional horticulture association has emerged to react to the market insecurities and gain power, knowledge, and resources. This new form of organization helps farmers to create links to regional markets, e.g. through verbal contracts with supermarkets that persist even when open borders allow for cheaper imports, and thus improves the position of Zambezi farmers within horticulture value chains (ibid.). In contrast to corridor plans that actively try to integrate rural hinterlands into formal value chains, this value-chain-related local development is unrelated to the WBNLDC. In the Zambezi region, the WBNLDC is merely a central transport route that brings food from southern regions and facilitates regional cross-border traffic for food imports from Zambia.

To sum up, the WBNLDC was initially designed to increase the ports’ throughput and in this way contribute to the vision of transforming Namibia into a ‘Logistics Nation’. The set of actors involved in the planning of the corridor shows that logistics remains at the centre of attention and the making of this vision is driven by interests of the Walvis Bay Port. The expansion of the port’s handling capacity points the way to the future and requires the mobilization of resources in the hinterland to meet the ambitious development goals. However, the mobilization of resources that can be shipped to the world market does not necessarily meet the needs of the hinterland’s population. While most Zambezi residents welcome the tar road connection to the rest of Namibia and tourist arrivals are increasing, the economic benefits of this connection at a local level are still limited. In particular, taking the perspective of non-participating actors, such as small-scale farmers that are not benefitting as expected from such infrastructure developments (Hulke *et al.* 2020, Hulke and Revilla Diez 2022) reveals the pitfalls of growth corridor visions and implementations.

The Southern Agricultural Growth Corridor in Tanzania

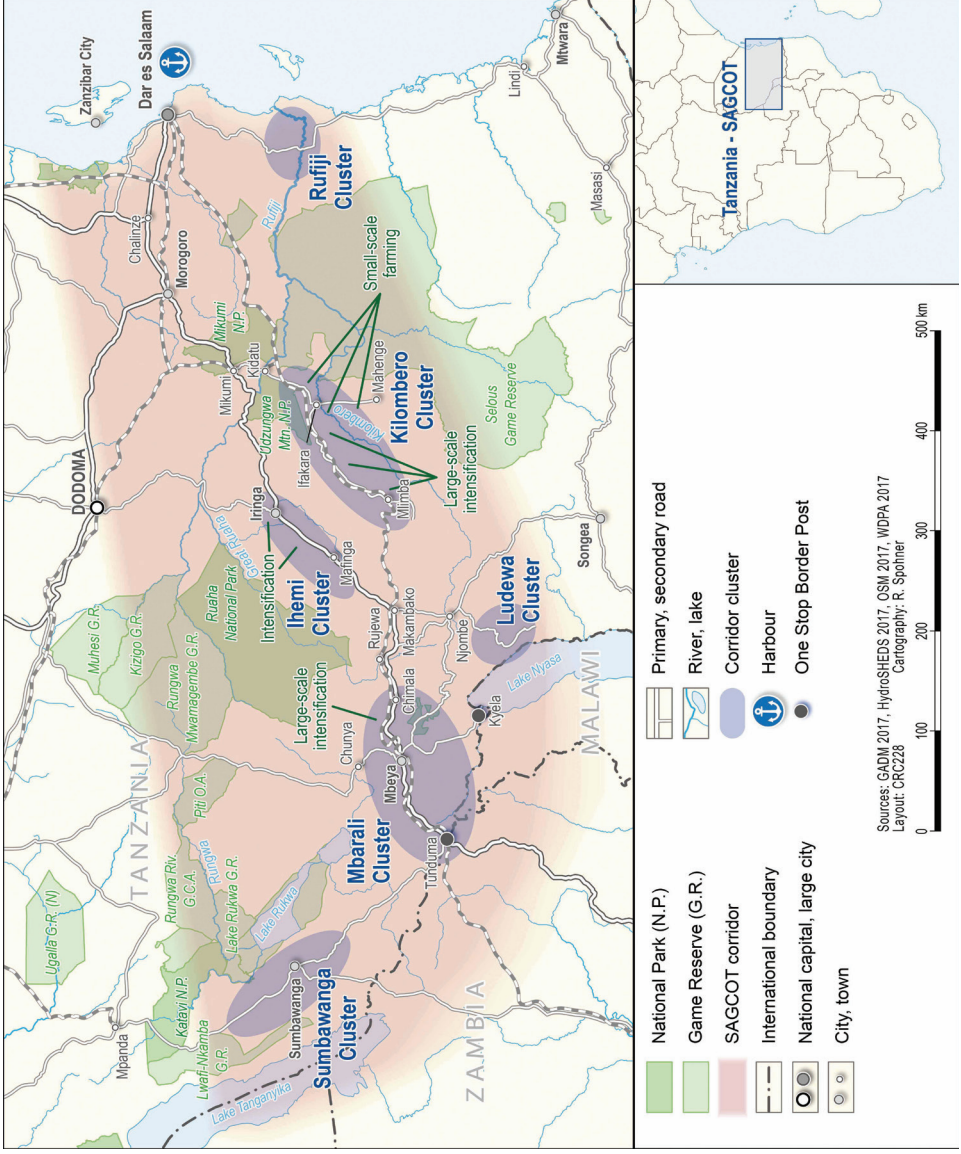
Initiated in 2010 at the 20th World Economic Forum hosted in Dar es Salaam, the *Southern Agricultural Growth Corridor of Tanzania* (SAGCOT) was designed through a PPP between global agribusinesses, the Tanzanian president Jakaya Kikwete, and international donors. In reaction to the ravaging global food and finance crisis in 2007/2008, the SAGCOT promotes the idea

of an agriculture-oriented development corridor. On the one side, SAGCOT is envisioned to alleviate food scarcity and poverty, and on the other side it promises new investable assets and markets for globally operating agribusinesses and investors (Mbunda 2016, Müller-Mahn *et al.* 2019, Luxen *et al.* 2022). Based on this win-win imperative, the SAGCOT vision is articulated in an *Investment Blueprint*, which allures with the promise of bringing 350,000 hectares of arable land into profitable production, the creation of at least 420,000 jobs along agricultural value chains and, ultimately, the lifting of more than two million people out of poverty (SAGCOT 2011).

In a territorial understanding, SAGCOT aligns foremost with existing colonial and postcolonial linear infrastructures along the Dar es Salaam Corridor. Even under German and British rule, the corridor's Southern Highlands and the Kilombero Valley had already been promoted as prime areas for agricultural intensification and large-scale farming (Jackson 2021). After independence, the construction of the TAZARA railway between Dar es Salaam and the Zambian Copperbelt region became a turnkey project for demonstrating an emergent Pan-African socialism between Tanzania and Zambia as well as for clustering agricultural development under Nyerere's *ujamaa* policies (Monson 2009). Resonating strongly with these colonial and post-colonial legacies of the Dar es Salaam corridor, SAGCOT's territorial approach defines agricultural clusters under the aim of nudging and accelerating agricultural change towards market-oriented and globally integrated production (map 5.2). This approach of spatially focusing economic activities and financial flows therefore follows mainly (neo-)classical planning paradigms usually pursued to create innovative and competitive industries through clustering (Steffens *et al.* 2019).

The territorial component of SAGCOT is further expanded by a networked approach. Rather than just geographically directing investments into SAGCOT's clusters, the concept raises the need for public and private investments along the entire agricultural value chain. This implies that public spending on agricultural subsidies (e.g. seeds, fertilizers, and other implements) and infrastructures (e.g. roads, logistics, electricity), and especially also private investments in different value-chain segments (e.g. input trading, production, output trading) are coordinated and refocused to transform agricultural value chains from input sourcing through production and up to marketing. To attract and govern such inflows of capital, SAGCOT is hence not only demarcating a bounded territory, but just as well nurturing a transnational network of potential investors, national elites, and the community of development actors willing to provide the necessary capital (SAGCOT 2011).

The combination of demarcating space and constituting a network of SAGCOT stakeholders is seen as paramount among the consultants, business-people, and politicians promoting SAGCOT. Through this two-sided approach



Sources: GADM, 2017; HydrosHEDS 2017; OSM 2017; WDPA 2017
 Layout: CRCZ28
 Cartography: R. Spohner

Map 5.2. The Southern Agricultural Growth Corridor of Tanzania (SAGCOT) [Cartography R. Spohner].

towards Tanzania's rural future, early hopes associated with SAGCOT were to ultimately 'kick-start a virtuous circle of improving productivity, falling costs, rising profitability and sustainable growth' (Palmer 2010: 11). Hence, rather than being driven by colonial regimes (colonial time) or the socialist state (postcolonial time), SAGCOT prominently aimed at leveraging the private sector and a market-driven approach to transforming the corridor region's agricultural sector. Ten years after SAGCOT's launch, and hence entering the second half of its lifetime as per design, the future that SAGCOT envisions in territorial and networked terms is at a crossroads, however. This is explained by two major stages in SAGCOT's implementation.

SAGCOT in motion: deploying future

When president Kikwete announced SAGCOT in 2010, initial letters of intent with donors and investors had already been sealed. In the period until 2015, some of these commitments indeed led to unprecedented flows of subsidies and investments into SAGCOT's clusters and along the agricultural value chain. Most illustrative of this are investments in large-scale farms, or as identified already in the blueprint: 'early-win investment opportunities'.

Several studies cover how investments in large-scale farms such as *Kilombero Plantations Limited* (Kilombero Cluster), *Silverlands Tanzania*, *Clinton Development Farm*, *Mtanga Farm* (Ihemi Cluster), or *Unilever Tea* (Mufindi Cluster) created a handful of lighthouse projects (Bergius *et al.* 2018, Sulle 2020). Rarely setting up new farms, but usually reinvesting in already operational or abandoned farms, substantial private-capital investments and escorting patient capital from donors and philanthropists was used to financialize and showcase SAGCOT's future – mainly through large-scale farms that could integrate smallholders into their operations (Hartmann *et al.* 2021). Against all past experiences of an underwhelming performance of such farms in Southern Tanzania (Coulson 2015), this seemed initially to make a case for the feasibility of SAGCOT.

In parallel, and less covered by literature, more mundane smallholder agriculture was affected by SAGCOT (Brockington and Noe 2021). With value-chain investments at the input segment, the availability of seeds, fertilizers, and agrochemicals increased strongly as multinational input manufacturers such as *Syngenta* (seeds, chemicals) and *Yara International* (fertilizer) expanded their value chains into the corridor (Tups and Dannenberg 2023). Again, flanked by generous financial subsidies, these new value chains were designed to fuel what one could call a mini green revolution, especially in SAGCOT's Ihemi and Mbarali clusters. In total, these arrangements between SAGCOT's stakeholders, the agricultural input industry, and international donors culminated therefore in the gradual naturalization and assembly of an

input-intensive, market-oriented agricultural future among smallholder farmers (Tups and Dannenberg 2021).

In the early SAGCOT implementation stage, especially interventions in smallholder agriculture hence became pivotal for communicating SAGCOT's success. To counteract increasing criticism that SAGCOT's focus on large-scale farms might merely benefit multinational companies and fuel land grabs, the 'smallholder slot' became a vital resource for 'greening SAGCOT' (Buseth 2017). Value-chain integration of smallholders served both to justify SAGCOT in general and large-scale farm investments in particular (Hartmann *et al.* 2021). Interventions and successes targeted at smallholder farmers were increasingly brought to the foreground when communicating SAGCOT's success stories. In this sense, the alluring vision of SAGCOT was followed and stabilized by a set of anticipatory actions which indeed affected both large-scale and small-scale farming. Simultaneously, it created scope for global agribusinesses to capture value through newly emerging and highly subsidized chains for agricultural inputs.

Despite these early efforts, by the end of Kikwete's presidential term (2015), the implementation and public discourse around SAGCOT remained torn between the selective demonstration of successes stories and widespread critique of non-performance, nepotism, or even neo-imperial processes of dispossession and accumulation (Bergius *et al.* 2018, Bluwstein *et al.* 2018). Although Kikwete launched a military-inspired 'delivery lab' (2013–2015) to preserve his legacy, the early excitement about SAGCOT gradually faded both among domestic and international actors, at the latest by 2015 (Coulson 2015).

SAGCOT at a crossroads: failing promises?

Since 2015, SAGCOT is therefore at a crossroads. Adding to the slow progress of SAGCOT's implementation, the looming critique of SAGCOT's design and a gradual phasing-out of several donor projects, the Tanzanian political economy experienced a major rupture, which existentially jeopardizes the SAGCOT vision. With the election of Kikwete's successor John Magufuli, Tanzanian politics have shifted from clearly neoliberal politics of 'economic diplomacy' towards hard state politics along the principle of 'liberation diplomacy' (Kamata 2012). Claiming that Kikwete failed at negotiating beneficial deals, this principle invoked the need for an 'economic warfare' against imperial forces such as multinationals as well as donors (Paget 2020). Under Magufuli's cabinet, SAGCOT lost most of its former impetus quite suddenly. As a consequence, the SAGCOT vision not only suffered from disenchantment due to its slow implementation and looming critique, but it also lost its crucial top-down legitimacy at the Presidential Office, which had earlier been secured through Kikwete (Tups and Dannenberg 2021). Most illustrative

of this has been the withdrawal of an initially agreed 70 million USD World Bank fund in late 2019. This fund was designed to support SAGCOT projects by subsidizing outgrower schemes between private investors and smallholder farmers. In early 2019, the new government had demanded to redesign the fund from targeting private investors towards benefitting regional government bodies (Sulle 2020). Ultimately, these negotiations failed and the government requested to cancel the fund and effectively ‘shelve SAGCOT’ (The Citizen 2019). Under this new political economy, the SAGCOT vision as well as its early efforts of implementation hence became existentially discredited.

Going back to the territorial implications of this shift, the dawning discontinuation of SAGCOT has mixed consequences. Although SAGCOT never led to widespread outspoken positive expectations or resistance among farmers, the declining relevance of SAGCOT’s clusters for global capital is experienced in everyday agricultural practice more indirectly. SAGCOT-supported large-scale farms have either reduced or fully stopped their operations, as escorting capital from donors and philanthropists was gradually and sometimes abruptly withdrawn (Africa Confidential 2019, Hartmann *et al.* 2021). Simultaneously, attached smallholder donor projects were either scaled down or phased out. This retraction of (global) capital flows into SAGCOT’s clusters and value chains, and the loss of political backing, therefore goes hand in hand with the menacing failure of SAGCOT as a whole. As global capital and donor attention moves elsewhere, a vacuum of accountability, which is marked by rumours and confusion (about withdrawing investments and projects), as well as the gradual decline of initially established value chains (in terms of both agricultural inputs and outputs) seems to be all that remains of the initially powerful SAGCOT vision.

Synthesis: Understanding growth corridors between vision and reality

Across the African continent, during the last two decades growth corridors have been promoted as more than just transportation routes, as they increasingly include broader development goals such as poverty reduction and gender equality. Given the ambitious goals to provide better rural futures, it does not come as a surprise that these mega-projects often fall short of actually implementing their plans as already analysed in Mold (2012). However, interpreting the gap between vision and reality solely as ‘corridor failure’ does not sufficiently regard the political nature of growth corridors as per their design. Rather than asking what intended and what unintended effects corridors produce, the questions of *where* and *for whom* different effects occur seems much more insightful. By emphasizing multiple motives and future visions, it becomes evident that what might be intended somewhere and among some actors can

indeed be unintended elsewhere and by other actors. Even if the transferability of the results based on two case studies is limited and shows a need for future research, the two case studies of the WBNLDC and the SAGCOT, help to better understand the ‘vision-reality gap’ of contemporary corridors.

First, there are apparent differences between the envisioning and outcomes of both corridors. While international investors and donors initiated SAGCOT together with the Tanzanian government, the WBNLDC is a product of Namibian actors, influenced by the attempt to further integrate SADC and increase connectivity and trade among the neighbouring countries. The WBNLDC at the time of planning was mostly logistics-oriented and included rather hard infrastructural measures. These measures are accessible to related industries and sectors and thus benefit economic development in unforeseen ways, as the tourism case has shown. The SAGCOT, to the contrary, was solely agriculture-oriented and included rather soft and often selective measures. Regional development outcomes were therefore mostly accessible and beneficial for large, industrialized agricultural businesses and international lead firms, such as farmland investors or input suppliers. The initially neoliberal approach underpinning SAGCOT’s design changed over the last five years as more protectionist measures caused insecurities and dropouts among international investors and donors. Compared to Namibia’s early improvements in infrastructure, Tanzania’s rather one-sided strategy shows less visible effects for the regional economy.

Second, there also exist similarities between both cases. Both corridor initiatives in Namibia and Tanzania have their origins in colonial and post-colonial infrastructures, which served as means of resource extraction from land-locked hinterlands. Their infrastructural axes are historically constituted and (at least partly) continue to be used for the exploitation of raw minerals and natural resources, e. g. from the Zambian and Congolese Copperbelt region. In order to ‘deal’ with their legacy of exploitation and their shortcomings, even in post-colonial times, both corridor visions rely therefore on communicating holistic and often blossoming futures for the respective corridor spaces, especially peripheral, rural areas. Social and ecological spheres such as gender inclusiveness, climate change, or nature conservation have clearly been discursively appropriated and turned into narratives that are fundamental for displaying what corridors can and should achieve (Cf. Buseth 2017). However, growth-corridor policy continues to oscillate between economic pathways that are dubbed green and sustainable, and more extractivist realities. This is best illustrated by the conflicting interests in ReconAfrica’s recent oil drilling in ecologically sensitive areas along the WBNLDC corridor.

Moreover, both corridor plans targeted the integration of peripheral rural areas into global trade and investment flows. Both the agricultural and the

tourism sector have more or less been affected by and indeed partly benefitted from the two corridors. Nonetheless, value capture in the hinterland remains marginal in both cases, perhaps with the exception of the internationally highly contested practice of hunting tourism (Kalvelage *et al.* 2023). Large parts of the rural population remain excluded from the newly created economic possibilities. In some cases, though, alternative livelihood strategies emerge (e.g. horticulture value chain in the Zambezi region). However, our results indicate that the design of upcoming corridor plans should show increased sensitivity towards the needs and potential of the hinterland if the proclaimed aim of including the hinterland in the benefits of global market integration is to be achieved. It is misleading to simply wait for the promised automatic occurrence of trickle-down effects. In order to tackle these challenges, it is crucial for policy strategies to focus on making targeted investments in local infrastructure, implementing capacity-building initiatives, and fostering the development of inclusive value chains that actively engage rural communities. Beginning with the development of a regional value chain that caters to local markets could be a beneficial starting point for subsistence farmers. This approach would ensure that the economic benefits of market integration are distributed more fairly, promoting sustainable growth and reducing reliance on controversial practices.

Finally, by conceptually linking corridor initiatives with a value-chain perspective, the heterogeneous nature of corridor planning in regard to various economic sectors can be better acknowledged. We paid special attention to the effects of corridors in terms of their impacts on value chains on various scales (global, regional, local). Here, the simplifying concept of value chains can serve to understand the territoriality of corridors and to look at their tendency to intensify uneven accumulation processes. The value chain perspective can therefore serve both as an entry point for conceptualizing how corridors are practised and as a methodological instrument guiding empirical research. By going beyond a container-based understanding of corridors, value-chain perspectives help to discuss the nuances of corridor planning and its impacts on different places and actors.

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The Making of an Energy Resource Periphery? Scalar Politics, Frontier Dynamics, and Future-Making in Northern Kenya¹

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Introduction

Recent developments in Kenya's remote rural north are being driven by extensive infrastructure investments for energy production and generation. Renewables such as wind and geothermal together with crude oil extraction are among the most important projects. This chapter examines three such projects. These projects not only harbour opportunities and risks for the affected population, but also open up new possibilities for negotiating the future. Will the formerly marginalized areas benefit from the developments or will they become energy resource peripheries for the economically stronger regions of the country? We show that the outcome of these negotiation processes is largely open, because of political conditions such as devolution and instability in the regions concerned.

On the one hand, these projects epitomize the struggle for 'energy futures' between carbon-based and renewable energies (Boyer 2014, Love and Isenhour

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2016). On the other hand, they bring substantial ancillary infrastructures (Greiner and Klagge 2024) to these remote rural areas, such as roads and water pipelines. Beyond such concrete interventions, they also bring promises of future development and prosperity, epitomized, for example, by visions of the Lamu Port-South Sudan-Ethiopia-Transport Corridor (LAPSSET Corridor Development Authority 2016). However, none of the three energy projects currently under consideration is intended for local uses: oil is exported, and electricity generated from wind and geothermal power is fed into national grids that largely do not serve areas of production. Following Argent (2016), Irrarrázaval and Arias-Loyola (2021) and other authors, such regions can be described as ‘resource peripheries.’ We conceive of resource peripheries as places of extraction that are geographically remote from long-established population centres, but are ‘drawn together in an integrated web of physical infrastructure, foreign direct investment flows and corporate hierarchies’ (Argent 2016: 805). Tsing (2003) and others (e.g. Li 2014, Watts 2018, Dressler 2017) have used the term ‘resource peripheries’ interchangeably with ‘frontier’, with additional qualifiers such as ‘resource’, ‘extractive’, or ‘capitalist’ frontier. We understand frontiers as a spatial and temporal process of the expansion of state and corporate power into formerly peripheral rural areas, often with the aim of rendering them into resource peripheries. This contribution deals with the processes of creating a resource periphery in northern Kenya. In view of controversial debates about the future of pastoral communities associated with this region (Greiner 2022, Lind *et al.* 2020, Mosley and Watson 2016), we use the term ‘frontiers’ to describe a process whose outcome is not yet certain.

The scholarly literature on northern Kenya does not share a uniform assessment of the developments outlined above. While some authors note the reinforcement of existing centre-periphery relations (Hashimshony Yaffe and Segal-Klein 2023), others see a renegotiation of such relationships (Orr 2019), complicated by new patterns of scalar governance (Klagge *et al.* 2020). These assessments also vary because the developments in northern Kenya were initiated in the midst of political transformations, most notably, the adoption of the 2010 constitution and the associated decentralisation of political processes, through devolution of power that occurred in 2013. Against the background of historically weak state penetration in northern Kenya, projects for energy extraction are developed within an institutionally volatile regulatory environment (Lind 2018). Regional governments have been implemented as new players and as intermediaries between local communities and the national government (Cheeseman *et al.* 2016). This has led to disputed constituency and county boundaries, particularly in those areas where land-based resources are at stake and potential economic benefits are anticipated (Greiner 2013). To make matters more complicated, national energy policies and regulations

change frequently, leading to inconsistencies and uncertainties that are not only disadvantageous for investors and project developers, but also for coordination at different levels of government (Keshavadasu 2023).

The energy projects under consideration bring about both opportunities as well as significant threats to the livelihoods of affected pastoralist populations (Mkutu and Mdee 2020, Mosley and Watson 2016). Mobile livestock farming remains prevalent throughout the region, but the last few decades have witnessed a number of dramatic changes, most of which go far beyond the projects considered here (Anderson and Bollig 2016). Among these are droughts and deteriorating environmental conditions, rapid population growth, sedentarization, land-use intensification, indigenous commodification of land, and increasing contestation of territorial boundaries (Catley *et al.* 2013, Lind *et al.* 2020). These factors have led to the constriction of communal pastures. Formerly open rangelands are increasingly fragmented (Galvin 2009), and local communities' relations to land and landed property are also witnessing profound changes (Greiner 2016, Korf *et al.* 2015).

Within that context, this contribution explores the implications of different energy-related investments and accompanying infrastructural projects for rural populations. We address the following question: How and by whom are different energy futures, including their impacts on local livelihoods, negotiated among and across different actors and scales? In particular, we focus on scalar dimensions of negotiations (i.e. scalar politics) over the distribution of benefits derived from wind, oil, and geothermal energy projects. In addition, we explore how the frontier context, including the devolution of political power, affects the forms and outcomes of such negotiations.

Although there is a good deal of literature on LTWP (Achiba 2019, Cormack and Kurewa 2018, Drew 2017), oil extraction (Enns and Bersaglio 2015, Johannes *et al.* 2015, Agade 2017), oil and LTWP (Schilling *et al.* 2018), and geothermal development (Greiner 2020, Greiner *et al.* 2023, Klagge *et al.* 2020, Klagge & Nweke-Eze 2020, Mahamoud Abdi *et al.* 2024), as well as a number of contributions sketching challenges and conflicts arising from these investments more broadly (Lind 2018, Lind *et al.* 2020, Mosley and Watson 2016), there have been no systematic attempts to examine local impacts of these three energy projects. No study has analysed these projects in terms of scalar politics, frontier dynamics, and the concept of future-making, by which we refer to strategies, practices, and activities aimed at bringing about specific futures, visions, and aspirations (Müller-Mahn 2020).

The remainder of this chapter is organised as follows: Section 2 links the frontier concept with future-making and scalar politics. Section 3 introduces the northern Kenyan context, while Section 4 describes our methodology and case studies on wind, oil, and geothermal energy. Section 5 systematically compares

future-making activities among stakeholders for the different projects and infrastructures, including how conflicts are negotiated. The conclusion summarises our findings on the scalar dynamics of future-making in our case studies.

Future making and scalar politics in frontier contexts

Although the frontier concept has been widely criticized, especially Frederick J. Turner's vision (1894), it has nonetheless been invoked to characterise relations among states, capitalists, and their peripheries (Li 2014, Watts 2018, Schetter and Müller-Koné 2021). Along these lines, Korf and Raeymaekers (2013: 10) define frontiers as 'the space where territorial and institutional penetration of the modern state has (not yet) been completed'. The term is currently employed to describe the expansion of extractive industries and infrastructure projects into previously remote areas (Bennett 2017, Tsing 2003). Frontiers are characterised by an 'institutional vacuum' (Kopytoff 1987: 7), which nestles between the disintegration of established principles of social order and the emergence of new regimes. Frontier spaces are often perceived (or characterized) as 'empty land', abounding with real or perceived economic opportunities, as well as open or latent violence (Korf *et al.* 2013, Rasmussen and Lund 2018). The frontier, as Tsing (2003: 5102) writes, 'is made in the shifting terrain between legality and illegality, public and private ownership, brutal rape and passionate charisma, ethnic collaboration and hostility, violence and law, restoration and extermination'.

Like many infrastructural projects, energy infrastructures for wind, oil, and geothermal extraction are 'intimately caught up with the sense of shaping modern society and realizing the future' (Larkin 2013: 352). As such, they raise expectations and involve people in particular communities of aspiration (Hetherington 2014). This results in economies of anticipation, driven by emerging topographies of (imagined) value, but also fear, anxiety, and insecurity about the future. In such scenarios, indigenous populations, peasants, and pastoralists are often portrayed as 'victims of progress' (Bodley 2008). Pessimistic accounts of land-grabbing, oppression, displacement, and disenfranchisement – or 'frontiers of exclusion' (Geiger 2009: 198) – prevail in scholarly work.

Frontiers are coproduced by different actors with various and potentially conflicting aspirations, which are negotiated across scales. Because of their institutionally volatile environment, frontiers open up spaces for negotiation about desired futures among local and distant actors, equipped with more or less bargaining power. If frontier situations are thus understood as dynamic processes of future-making (Appadurai 2013), i.e. as attempts 'to gain control over the future and reduce uncertainties' (Müller-Mahn 2020: 156–7), then the

voices and perspectives of subaltern populations can be included in frontier research. The frontier, then, marks a situation in which different visions of the future compete.

This raises questions about relationships between centre and periphery, local and global, and ultimately, about scalar politics and hierarchies. Some scholars have controversially proposed to remove scale from the human-geographical vocabulary (Marston *et al.* 2005). While acknowledging that scale is socially constructed, and established through (political) relations, we do not follow this radical proposition. Rather, we follow MacKinnon (2011) who proposes a concept of ‘scalar politics’, aiming to incorporate a processual and historically sensitive perspective that is attentive to the strategic deployment of scale in both its discursive and material expressions. Scale itself is not contested, ‘but rather specific processes and institutionalized practices that are themselves differentially scaled’ (MacKinnon 2011: 22).

This approach not only focuses on interactions between administrative levels (e.g. central and devolved county governments), but also on emergent social practices that may challenge existing power asymmetries. Large-scale extractive projects such as the ones we discuss in this contribution are constituted by multi-layered structures. They are shaped by multiple and often competing actors ‘engaged in an indefinite set of distributed interactions over extended periods of time’, as Harvey *et al.* (2017: 10) have observed. We therefore suggest that ‘the frontier’ is also a situation that opens spaces for negotiation and new alliances across scales.

Resource frontiers in Northern Kenya

Among the main pillars of Kenya’s Vision 2030 – an ambitious national masterplan aimed at transforming Kenya into a middle-income country by 2030 – are promises of significantly enhanced infrastructure, energy provision, and land reform. A relevant policy report, the *Development Strategy for Northern Kenya and other Arid Lands*, evokes the ‘significant amount of untapped wealth’ of Kenya’s previously marginalized arid north (RoK 2011: 15). In the foreword to the report, Kenya’s then-President Mwai Kibaki, wrote: ‘The arid lands in particular have a limitless supply of renewable energy which could power our homes, schools and factories. The region is thus blessed with unique opportunities’ (ibid. 5). Northern Kenya has, therefore, caught the interest of potential land investors, and this has contributed to a dramatic rise in local expectations to participate in and benefit from new opportunities (Lind 2018, Mosley and Watson 2016).

Historically, Kenya’s northern region was considered remote, backward, and without potential for economic exploitation (Elliott 2016). The vast area

including Baringo, Marsabit, and Turkana counties is inhabited by groups of people who make their livings from pastoralism and agro-pastoralism (see Table 6.1). Land tenure in the project areas for wind, oil, and geothermal development was and is still partly communal trust land. Since 2016, the Community Land Act paved the way for community group registration, thus providing legal protection for land users. Implementation, however, has been slow, mainly owed to a lack of political will, as suggested by Alden Wily (2018), who also doubts its effectiveness for protecting the land rights of local populations.

Table 6.1: Basic data on Baringo, Marsabit, and Turkana counties in relation to Kenya as a whole [Source: Kenya National Bureau of Statistics 2019].

	Unit	Year	Baringo	Marsabit	Turkana	Kenya
Area	km2	2019	10,976	70,944	68,233	580,876
Population	in 1000s	2019	667	460	927	47,564
Population density	number per km2	2019	61	6	14	82

Many communities in these areas also hold historical grievances against the state, as well as a weak sense of belonging to the Kenyan nation. There are several hotspots of inter-community conflict between certain ethnic groups over water, pasture, and livestock. Availability of guns plays an important role in these conflicts and contributes to the high prevalence of banditry, deaths, and injuries to people living in these areas (Bond and Mkutu 2017, Mkutu 2008).

Devolution was initially lauded as a remedy against the ‘underlying pathologies of Kenyan politics’ (D’Arcy and Cornell 2016: 247), characterised by corruption, politicized ethnicity, and over-centralization. Amidst a structurally weak and historically marginalized northern context, the implementation of devolution has been particularly slow and challenging when compared to other regions, allegedly due to a lack of skilled personnel and organizational capacities (Turkana County Government 2018). Devolution also appears to have reinforced patronage politics and enhanced competition for some important political positions (Lind 2018). In most cases, devolution maintained existing district boundaries as county boundaries; however, by reinforcing local centres of power, devolution also further fuelled pre-existing conflicts (Greiner 2013). Due to the low presence of state security in Kenya’s arid north, these conflicts have turned increasingly violent, especially as most pastoralists are in possession of automatic rifles (Mkutu 2007, Schetter *et al.* 2022).

New legislation, such as the Petroleum and Energy Acts of 2019, provides for the sharing of public revenues at the local level from oil investments

and geothermal development, although not for wind energy (Schilling *et al.* 2018). Following such legislation, counties will receive 20 per cent and local communities will receive 5 per cent of the national government share of public revenues. Negotiations over this provision have polarised relations between counties and the central government (Orr 2019) and also intensified boundary conflicts between counties and sub-counties, as pastoralist livelihoods traditionally required flexible concepts of territorial belonging. The Natural Resources Benefit Sharing Senate Bill no. 6 of 2022, which has yet to pass the legislature at the time of this writing, would amend this formula to allow for the allocation of 40 per cent to counties – of which almost two-thirds (60 per cent) would be allocated to host communities to support their local socio-economic development.

Methodology and case studies

Northern Kenya provides an interesting setting for energy-related investments and future-making by a variety of actors whose aspirations and strategies coalesce into complex resource frontier dynamics. There are several commonalities as well as differences between our three case studies – wind, oil, and geothermal. To address these complexities, we drew on scholarly and grey literature (in all three cases) as well as conducted field research consisting of expert interviews with national and county representatives, companies, and NGOs, among other stakeholders (in the cases of oil and geothermal); these interviews are complemented and contextualized by long-term ethnographic research by Greiner in Baringo county, which hosts the geothermal project. The authors conducted joint field research in Baringo on several occasions, in Lodwar in March 2019, including at the oil production site at Lokichar in Turkana County, as well as around the LTWP project in November 2023 and in May 2024. Below, we highlight specific characteristics of our three case studies.

Lake Turkana Wind Park in Marsabit County

Northern Kenya has large wind resources, especially on the south-eastern shores of Lake Turkana. The LTWP consortium, formed in 2006, was granted a 33-year lease of 150,000 acres of land in 2009 from the then-local government entity, the Marsabit County Council.² LTWP was developed by an international consortium of private firms and public institutions, mainly from the UK, the Netherlands, and Scandinavia (Klagge and Nweke-Eze 2020). Construction

² Meru Environmental and Land Court Case No. 163 of 2014, p.13



Figure 6.1. A herd of camels passing Lake Turkana Wind Power Project; Loiyangalani, Marsabit (Kenya), November 2023 [Photo: C. Greiner].

of the wind farm started in October 2014 and was completed in 2017. With 365 turbines from the Danish manufacturer Vestas, and a generation capacity of over 300 MW, LTWP is the single largest wind park in Africa and the biggest private investment in Kenya's history (Cormack and Kurewa 2018). The Kenyan government, which was neither part of the consortium nor among its lenders, supported the development with a pre-negotiated power-purchase agreement (Eberhard *et al.* 2016, Klagge and Nweke-Eze 2020), and by agreeing to take responsibility for building the more than 400-kilometer connection to the national grid. From 2013 onward, successive county-level governments have supported the project.

From its inception, the project engendered protest and resistance by several local communities and by international NGOs (see, for instance, Danwatch 2016). The major point of contention was the neglect of community land rights. At first, LTWP did not accept criticism and the implicit calls for greater local participation, contending that it only occupied empty land. According to the LTWP, pastoralists still have access to the acquired land to graze their livestock (see Figure 6.1.). The company therefore argued that there was no justification for further compensation beyond providing for community resettlement (Enns 2016). Unresolved issues around the wind park led to a lawsuit, the Meru Environmental and Land Case no. 163 of 2014, filed by the senator of Marsabit County and several members of the County Assembly (Achiba 2019) on behalf of the residents of Laisamis constituency and Karare ward. The defendants included Lake Turkana Wind Power, the first Marsabit county government, and three national-level actors, including the attorney general, chief land registrar, and National Land Commission (NLC), along with other interested parties.³ The petitioners claimed that the land acquisition by the investors was illegal due to a lack of community consultation, inadequate compensation, amongst other violations (Cormack and Kurewa 2018, Enns 2016).

The lawsuit was challenged by a few local residents who were directly affected by the project and allegedly receiving some benefits from the wind project. This group claimed that they were, in fact, consulted and that the plaintiffs were outsiders to the project area with ulterior motives (Achiba 2019). In October 2021, the High Court in Meru ruled against the LTWP and the government, demanding that the land acquisition process be regularised within 12 months or else the leasehold would be annulled. The LTWP asked for a review of the judgement, requesting an indefinite extension given that the community and the government need to formalize Community Land registration to enable them to regularize the process. On 22 May 2023, the Kenyan Environment and Land Court in Meru rejected the application for review filed

³ <http://kenyalaw.org/caselaw/cases/view/152078>

by LTWP, leaving them in the difficult position of occupying the land illegally. At the same time, the community is taking steps towards registration of their land and deciding the way forward (Andae 2023).⁴

As growing international attention posed reputational risks for Vestas and other investors, in 2015, the LTWP started a comprehensive corporate social responsibility (CSR) programme – the so-called LTWP Winds of Change Foundation – to support local communities in the provisioning of water, schools, and health infrastructures (Achiba 2019). The LTWP is also actively engaging communities in peace talks, providing security interventions to help restore peace, especially during inter-tribal disputes over land, cattle, and other resources. Recently, these security interventions have recorded some degree of successes within and among ethnic groups in the region.⁵

Oil production in Turkana

Oil discoveries in Kenya date to the colonial period. These activities picked up steam in 2012 due to the favourable conditions of a ‘frontier market’ (Tyce 2020: 733). The Anglo-Irish oil company Tullow formed a joint venture with Africa Oil and Centric Energy to acquire onshore licenses and began oil exploration near Lokichar, in the southern part of Turkana County. By 2018, oil was transported to Mombasa for export by truck, pending the expansion of existing well pads from 33 to 321 and the construction of a pipeline from Turkana to the Coast. The oil sites have been fenced in and made inaccessible to local communities, which has disrupted access to pasture, water sources, and migration routes, creating severe livelihood challenges for local communities. This contentious situation is likely to persist as further developments are unveiled, as Schilling *et al.* (2018) argue.

As such, since 2012, there have been numerous confrontations between local community members and the company and its subcontractors over displacements, participation deficits, jobs, compensation, and tenders. These conflicts have usually been small in scale and nonviolent, with the exception of two demonstrations in 2013 and 2018 that led to the cessation of oil operations. When Tullow Oil established an operation base and airstrip on 400 acres of community land, which an investor had leased from Turkana County Council in 2012 – in anticipation of oil extraction – community members entered the base and caused damage to the property worth upwards of 60,000 USD. By way of compensation for the acquired land, and in response to the protests, Tullow Oil significantly increased its CSR measures, including drilling boreholes for

⁴ Meeting with senior official from Marsabit county government, 28 July 2024.

⁵ Authors’ interviews with various community members in Sarima, Civicon, and Mount Kulal villages, November-December 2023 and May 2024.

water, building schools and a hospital, establishing funds for community development committees, and creating offices to address community grievances.⁶ Moreover, employment of local workers and subcontracts by Tullow Oil for Kenyan suppliers increased until 2016. However, when most of the required construction work was completed, many people lost their jobs. Community protests re-emerged in 2017 – community members blocked company trucks and prohibited access to the oil production sites, as they demanded a share of revenue greater than 5 per cent (Mkutu and Mdee 2020, Schilling *et al.* 2018). Furthermore, the historical rivalries between the Turkana and Pokot to the south have been exacerbated by the presence of oil fields. This has raised the stakes for territorial control in the area, cascading into contestations and deadly conflicts (Agade 2017, Mkutu and Mdee 2020).

The Kenyan government was responsible for acquiring land for the 824-kilometre oil pipeline, as part of the LAPSSET corridor. In February 2019, the NLC officially designated the required land without involving the county government or local communities. Shortly thereafter, when the NLC announced the designation and associated compulsory acquisition during a public assembly in Lokichar, turmoil broke out. A member of the County Assembly closed the event and filed a complaint (Grawert 2019), demanding to nullify the land acquisition. Furthermore, the Turkana County government went to court to stop the compulsory acquisition of indigenous land.⁷ Issues of contention included the lack of consultation between national and county governments, as well as lack of community participation or compensation. When the court ordered the matter to be handled by alternative dispute resolution through the Intergovernmental Relations Act, Tullow Oil suspended its pipeline activities.

Geothermal development in Baringo-Silali

Kenya's Rift Valley has vast potential for geothermal energy exploitation (Mariita 2002). Large-scale resource development began in Olkaria, near the town of Naivasha in the mid-20th century and was expanded to the northern part of the country only recently (see Figure 6.2.).

Major new infrastructural developments include those at the Menengai caldera after 2011, close to the city of Nakuru, and developments at Baringo-Silali shortly thereafter, which are the focus of this contribution (Figure 6.1). The most important actors in geothermal development are national-state

⁶ Author's interview with a staff member of the Tullow Oil Resource Centre in Lodwar, March 2019.

⁷ <https://www.standardmedia.co.ke/adblock?u=https://www.standardmedia.co.ke/business/article/2001316308/government-blocked-from-acquiring-land-in-turkanaD>



Figure 6.2. Geothermal power station, Olkaria, Naivasha (Kenya), June 2017. [Photo: C. Greiner].

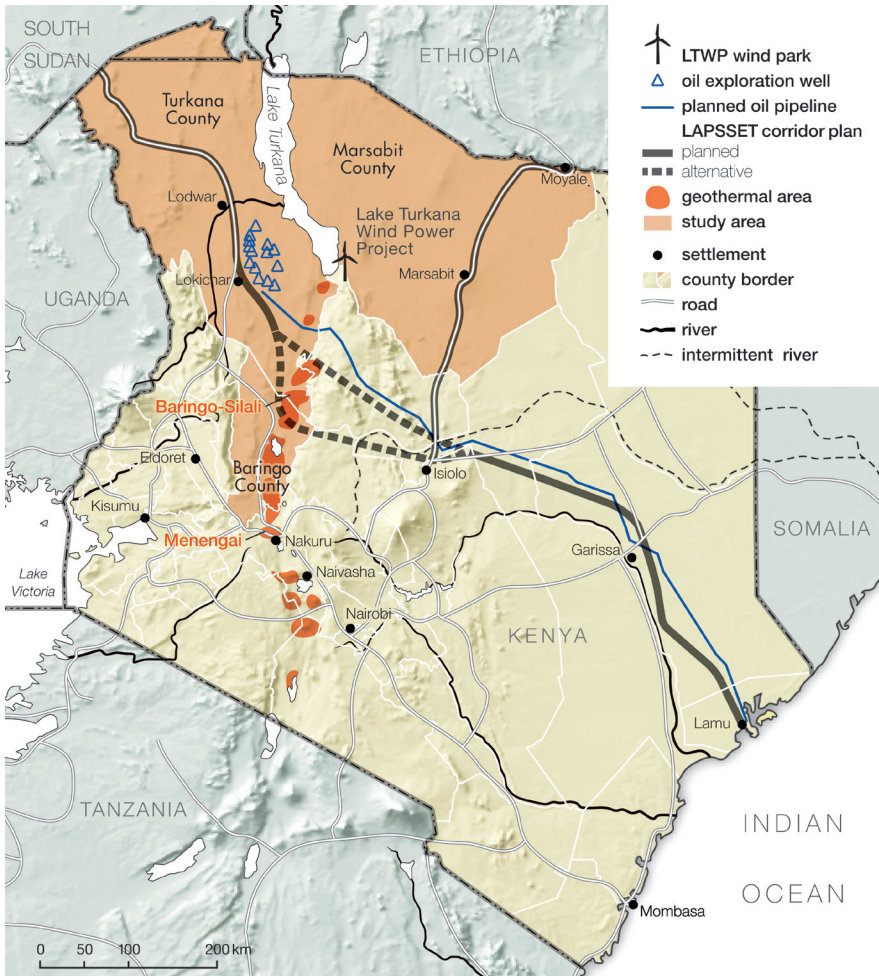
agencies, mainly KenGen, the national power-generation company, and the Geothermal Development Corporation (GDC), a 100 per cent state agency established in 2008 in order to fast-track geothermal energy exploitation. Geothermal development begins with surface studies and the preparation of well pads, followed by exploratory drilling, and then, if all previous steps are successful, the construction of power plants. Geothermal power plants concentrate steam from different sites through a pipeline system and transmit generated electricity to the national grid. Geothermal energy involves various ancillary infrastructures, including access roads, water provision for drilling, as well as housing, catering, and health facilities for workers, engineers, and managers (Greiner and Klagge 2024). Geothermal development thus greatly impacts the living conditions of people – presenting both challenges and opportunities for local communities (Greiner *et al.* 2023). Livestock herding and health may be particularly disrupted by associated vehicle traffic, pipelines, and sulphur dioxide and other emissions (Hughes and Rogei 2020).

Although Baringo-Silali is still in the exploratory stages of drilling, its estimated potential is about 3000 MW.⁸ To access drilling sites, the existing road network was improved and more than 100 kilometres of feeder roads, as well as a water-provisioning system, were constructed. Once sufficient steam is secured, the wells will be sold or leased to either KenGen or private independent power providers to construct power plants and feed electricity into the national grid. Recent conflicts – often resulting in roadblocks – mainly concern job opportunities and salary-related complaints, specific CSR measures, and compensation for the transfer of communal lands for infrastructural developments. The latter has not yet occurred and compensation payments regarding the use of communal land are still pending. Further consequences remain to be seen when the completed pipeline systems begin to obstruct the movement of cattle, once geothermal electricity is produced, and when the first profits start to be made.

The most important community benefits so far provided by GDC include a water provisioning system, for both humans and livestock, job opportunities, and improvements to local schools. However, the frequent drying up of the water supply – which is directly linked to drilling activities – has led to resentment and protests among affected populations (Greven 2023). Despite its relatively early stages, geothermal developments have contributed to a local land rush, particularly along newly-built roads (Greiner *et al.* 2021), as well as – at least at times – to intensifying ethnicized conflicts between the Pokot and Turkana. These ethnic conflicts are owed to the fact that both groups claim ownership of the Silali geothermal site, which is located on the border

⁸ <http://www.gdc.co.ke/baringo.php>

between Baringo and Turkana County (Greiner 2020). As a result, representatives from Turkana, including the County government, have demanded their share of both short- and long-term benefits, including financial revenues, once electricity generation begins.



Map 6.1. Map of the study area and the case study sites. [Authors' illustration based on Cordaid et al. 2016; Klage et al. 2020; LAPSSET Corridor Development Authority 2016, 2020.]

Scales of future-making: a comparative analysis

An overview of the projects shows that, in all three cases, there are competing claims over benefits. The Kenyan state and policy actors, as well as external investors, cannot just pursue their economic interests; rather, they must also engage local communities because of legislative requirements regarding land and community participation in land deals, as well as engage counties, as a relatively new set of players resulting from devolution. Negotiations over the fair sharing of benefits thus occur in a region that, until recently, has not been a historical focus of international investors, and in a situation where many communities are undergoing profound changes with respect to their lands and livelihoods. This institutionally weak and unstable regulatory environment opens up an arena in which various actors struggle for influence, authority, and ultimately the power to shape the future at different scales. Unresolved issues over land, employment, and CSR schemes, as well as local-to-national revenue-sharing challenges, all emerged as focal points of conflicting interests. In what follows, we examine the following axes of scalar politics: national government and investors, communities and investors, inter-community conflicts, and counties as new players in the devolution context.

Nation-state and investors: future-making on a large-scale land investment

The Kenyan state has supported the above-described investments by facilitating or even financing land access, planning activities (including environment and social impact assessments), and the construction of ancillary infrastructures, such as roads. In the case of geothermal, the state is even the main investor. The situation in northern Kenya, therefore, does not resemble the neoliberal, privately secured resource extraction enclaves that have emerged in other parts of the African continent (Ferguson 2005). By contrast, the Kenyan government actively pursues future-making activities, which are firmly embedded in social and economic development goals that are explicitly stated in both Vision 2030 and the LAPSET corridor plan.

Because all projects were initiated before or during the process of political devolution, the state was able to set the stage before county governments could participate in planning and decision-making. Major partners in these early stages were private investors and development finance institutions, whose own profit- or development-oriented goals were largely compatible with the national government's long-term vision. Major counterparts in all stages of project development are the affected local communities, whose visions of the future are much more concrete, leading to various conflicts with investors as well as among local communities, as seen in the cases of the ethnicized conflicts mentioned above.

Communities and investors: future-making around land rights, job opportunities, and other benefits

Communities hosting large-scale energy projects in the northern Rift Valley have a history of marginalisation. Social services were available in towns but not in the rural areas where the new projects seemed to appear out of the blue, raising concerns that only the ‘big guys’ might again benefit. While there is variation within communities regarding benefits, local communities in all three project areas reacted strongly to the implementation of the infrastructures, exhibiting varying degrees of cooperation and confrontation with different investors. Reactions ranged from approval to critical negotiations over compensation and benefits to outright protests, as in the case of Tullow Oil. Differences in reactions are mainly related to differences in perceptions concerning future livelihood trajectories – i.e. whether livelihoods would be improved or threatened by the projects and their associated activities. In particular, the loss of grazing land, as well as a lack of adequate compensation, have stirred communities against the investors.

The companies responded with increased, although short-term, employment of local unskilled labour, as well as a range of CSR measures, primarily focusing on water provision, education, and health infrastructures. The LTWP and Tullow Oil initially only engaged minimally with local communities, whereas GDC, responsible for geothermal development in Baringo-Silali, made some recognisable efforts to involve local communities from the outset (Greiner *et al.* 2023). Tullow Oil significantly increased CSR spending in response to mounting local pressures and conflicts (Mkutu and Mdee 2020, Tullow Oil 2020), and it appears that LTWP did the same following legal action. At all three sites, local employment and CSR provisions helped circumvent resistance by local communities to a certain extent and deflected the most critical legal issues around land rights. Employment, especially for unskilled people, was the most important benefit in the early stages of all three projects. However, once the projects moved towards operation, and the construction of ancillary infrastructures such as roads was completed, jobs began to dwindle, contributing to numerous protests by community members (Schilling *et al.* 2018, Klagge *et al.* 2020). In all three cases, rather than open resistance to the projects as such, what was at stake were ‘terms of inclusion’ (Hall *et al.* 2015), which, as we show below, led to fierce contestation among local communities.

Communities versus communities: Future-making and intercommunity conflict

In all three case studies, intercommunity conflicts are fuelled by the distributions of, and access to, project-related compensation and benefits. These conflicts often revolve around distance from project sites, the location of

administrative boundaries, and customary claims to land. Who is regarded as affected by a new energy infrastructure depends on how the project's geographical coverage is conceived. This is especially difficult to determine for decentralized projects distributed across several sites, such as oil exploitation or geothermal development, especially if pipelines connect sites with each other, or are necessary to transport oil, water, or electricity to nearby or distant locations. In addition, gas, odour, noise, and other emissions from projects, as well as ancillary infrastructures, can disturb local livelihoods and health well beyond their actual locations.

The complex geographies of energy projects are further complicated by historical hostilities between specific communities, as well as the fact that precise territorial boundaries are difficult to determine given the communal nature of land rights, and the flexible, and often overlapping, land use patterns historically prevalent in northern Kenya. Adding to these complexities, the mobile nature of livelihoods allows people to move towards projects or to claim traditional use of certain areas in order to become eligible for compensation and CSR measures (Greiner 2016). Such practices of future-making may foster conflict with investors, and particularly with neighbouring communities, but they sometimes also create intracommunity conflicts, such as those that occurred between different clans in Turkana (Agade, 2017). Intercommunity conflicts frequently have ethno-political dimensions that sometimes turn violent. Some conflicts have exceeded 'traditional' ethnic hostilities to involve repeated attacks on Chinese workers in Turkana, as some interviewees mentioned.

Counties as new players: the impact of devolution

The devolved county governments operate on the basis of County Integrated Development Plans that are aligned with Kenya's so-called Vision 2030. The largest share of county budgets comes from the national government. Additionally, those county governments that have energy production sites receive 20 per cent of the public revenues from oil production and from geothermal electricity generation in the future. They are obliged to establish trust funds for the 5 per cent community share (RoK 2019: Art. 58). With these budgets, counties administer and control a variety of county-level issues, such as health provision, roads and transportation, pre-primary education, cultural activities, agriculture, planning, and development. Moreover, the county governments hold all unregistered community land in trust on behalf of the communities (RoK 2016: Art. 6).

Counties, therefore, have an important role in facilitating energy projects through land negotiations between the NLC and the local communities. The Energy Act of 2019 also gives counties a role in energy planning. Among other tasks, they are required to submit a county energy plan to the Cabinet Secretary

for Energy, which is to then be incorporated into an integrated nationwide plan (Amakobe and Randa 2020, Volkert and Klagge 2022). By performing these roles, counties serve as important intermediaries between the national government and local communities. However, power struggles among national politicians and county governors have undermined the smooth functioning and coordination of governmental institutions (Tyce 2020). Furthermore, there is a lack of administrative capacity in many counties, which is why international development agencies remain deeply involved in capacity-building and providing support to county governments (Council of Governors 2017). In addition to capacity problems, resource and data availability are also limitations to energy planning at the county level (Amakobe and Randa 2020, Volkert and Klagge 2022).

Whereas the county government's role in Baringo-Silali has so far been negligible, this is not the case with LTWP in Marsabit and oil production in Turkana. While the first Marsabit county government acted as an ally to the national government, other county-level actors, including the present county government, supported opposing local communities in their lawsuit. Similarly, the Turkana County government supported local communities by filing a petition to stop compulsory land acquisition for LAPSSSET by the national government, an indication that the county government is committed to shaping the county's future (see section on oil production in Turkana). However, many inhabitants distrust the county administration and demand that the 5 per cent share come as direct cash payments to each community member (Mkutu 2022). This controversy highlights local communities' fears that the county government will sideline them from the expected oil wealth. These fears are bolstered by the fact that the legally required trust fund to manage the 5 per cent community share has not yet been set up.

Conclusions

Energy futures in northern Kenya include both renewable and fossil fuels that are exploited in large-scale flagship projects. The three case studies considered here – wind in Marsabit, geothermal in Baringo-Silali, and oil in Turkana – are firmly embedded in the national government's future-making masterplans, whose long-term visions and aspirations are closely aligned with those of private investors and/or development financing institutions' goal of capitalist development. The national government and investors benefitted from the pre-devolution situation when the projects started, as they only had to negotiate with local communities, whose land rights were weakly protected by then-existing legal frameworks. However, the emergence of a new resource

periphery did not go unchallenged but has rather opened up spaces for negotiation for local communities, their representatives, and supporters.

The projects have raised both expectations and fears within local communities, as well as diverse responses ranging from cooperation to resistance (both overt and covert, active and passive, as well as legal strategies). In northern Kenya's frontier situation, local bargaining power is further strengthened by the fact that some community members are prepared to use armed force, if necessary, to emphasize their demands. Acts of resistance have been directed towards defending or improving existing livelihoods, but more often to improving the terms of inclusion, that is, to better benefit from employment and other opportunities created by different projects.

The institutional changes – Kenya's new constitution, devolution, and land laws – have gradually empowered local communities, as they have come to learn about these political and administrative changes, thereby strengthening their negotiating position. Moreover, they have also opened spaces for new alliances. While investors were supported by the national state, the counties have emerged as new political players and potential partners during project development and implementation. In the cases of wind in Marsabit and oil in Turkana, official county-level actors backed local communities and their activities vis-à-vis private investors and the national state, thereby highlighting the independent and active role of county institutions in (re)solving disputes with and in local communities. Such scalar politics are further compounded by inter-community conflicts at the sub-county level. Intercommunity conflicts are mainly about the distribution of jobs, CSR benefits, compensation and revenues, but they are also associated with fierce and even violent, often ethnicized, contestations about land rights, constituencies, and inter- and intra-county boundaries.

Our case studies show that frontier constellations open fields of contestation over future-making, involving various actors, and challenging pre-existing power asymmetries at different scales. These findings also underline the importance of processes and practices in scalar politics, which shape 'the interaction of inherited and emergent projects and scales' (MacKinnon 2011: 31). Future-making in such constellations is not only about realizing competing future visions and aspirations in institutionally unstable environments. It is also reshaping the relationship between centre and periphery, local and global. Following the first fieldwork for this article, the COVID-19 pandemic contributed to declining oil prices, which added to doubts that Tullow Oil will complete the project (Global Energy Monitor 2020). Tullow Oil's investment partners left in 2023, and the company has been seeking a new strategic partner (Mutua 2023). At the same time, Kenya's new President William Ruto has entered the stage (in 2022) with plans to massively expand

geothermal production for industrial development and green hydrogen export. The emergence of a new energy resource periphery in Kenya's arid rural north is still in flux, and its socio-spatial consequences are far from certain.

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Africa, The Conservation Continent? Future-Making and the Globalization of Wildlife Protection

HAUKE-PETER VEHRS AND MICHAEL BOLLIG

Tanganyika has every reason to be proud of the part she played in this big common effort, in hastening the day when Africa will be the shining example to the world of a continent which, fully aware of the incomparable, irreplaceable value of its natural wealth, has devised ways of wise husbandry, avoiding unneeded destruction and achieving a sense of interrelationship between man and his environment in the interests of its own peoples and of mankind in general.

Monod at the Arusha Conference 1961 (IUCN 1963: 16)

Africa has been at the receiving end of the monikers of others, from the pejorative 'dark' continent of the 19th century to be labelled more recently, first, as 'hopeless', and then, a decade later, as 'rising' by The Economist. It's high time for Africa to carve out its own epithet. The Conservation Continent is a positive option for many good reasons... There are many tough decisions to be made in Africa in the aftermath of Covid-19. By viewing this as less of a crisis and more of an opportunity, it may be possible to use this unprecedented pandemic to pivot Africa from its current development course and ensure growth in an economically and environmentally sustainable way.

(Desalegn *et al.* 2020)

Introduction

This chapter deals with future-orientated imaginaries, knowledges, and practices pertaining to conservation in Africa, a field of action defined during colonial times. In a narrow way conservation was institutionalized

as state-led protection of wildlife habitually in landscapes set aside for this purpose. The contribution intends to reflect upon continuities and discontinuities in this field and discusses the close relation between popularized apocalyptic visions of future doom of wildlife population and enforced action of states and the international community resulting in ever new layers of conservationist infrastructure.

Protected areas – state-led, community-based, or privately owned – embody future-oriented conservationist interventions into dynamic social-ecological relations. Habitually they are connected to aspirations and anxieties of future environmental states and are meant to put a hold on dynamics framed as dystopic. In many cases they also aim at the restoration of a prior vaguely defined ecological state. Despite their explicit environmental aims, they are intimately connected to the future-making agendas of socially and culturally embedded power groups acting across spatial and political scales.

This holds true particularly for the African continent. Early protected areas were gazetted to bring the wanton destruction of wildlife instigated by commercial hunters and the globalization of trade in wildlife products (ivory, rhino horn, ostrich feathers, hippo skins, etc.) witnessed in the second part of the 19th century to a halt. From the early 20th century onwards the establishment of protected areas had a twofold aim: to accomplish state control in marginal rural areas and to foster governmental income. Great economic expectations have been linked to the inauguration of protected areas in the early 20th century, in the 1950s/1960s, the 1980s/1990s, and today. The rapidly established national parks of the 1960s were meant to service independent African states as a source of stable income (via tourism) and as foundations of national pride bestowed on future-minded stewards of a global heritage. The enormous costs of major land-use change, relocation of sedentary communities within protected areas, and the effort spent on policing protected areas were all justified by the expectation that such protected landscapes were significant for the future economic welfare of colonies, independent African states and lately rural communities.

Nowadays, conservation is meant to address global problems of catastrophic biodiversity loss and devastating global climate change, to add to the national economy and to contribute to local development and poverty eradication. Such aspirations are attached to hopes for a coexistence of humans and wildlife against the apocalypse of global ecological change. Sociologist Jens Beckert calls such narratives ‘fictional expectations’ and argues that the decision-making of politicians is often anchored in such fictions. Beckert (2013: 220) defines fictionality in economic action as the ‘inhabitation in the mind of an imagined future state of the world and the beliefs in causal mechanisms leading to this future state’. He argues that ‘actors are motivated in their

actions by the imagined future and organize their activities based on these mental representations'. Expanding on Beckert's argument, we suggest that such promising political and economic fictions are strongly coupled with projections of impending collapse. In other words: whenever protected areas expanded rapidly, such expansions were reasoned to be direct answers to ecological crises. But what does such crises-reasoned future-making look like?

The idea that the imagination of the future informs present decisions is also taken up by Sheila Jasanoff who argues that contestations over possible techno-scientifically driven futures define resources, rights and obligations to manage them and privileged access to benefits accruing from such resources. In order to persuade people 'to opt for any vision of a future world, [...] [it] requires a leap into a fictive, unrealized landscape of dreams rather than one of tangible reality. At the same time, those visions must have enough solidity to win people's allegiance, to enable action, and secure buy-in' (Jasanoff 2020: 30). Jasanoff's key idea of 'collectively held, institutionally stabilized, and publicly performed visions of desirable futures, animated by shared understandings of forms of social life and social order attainable through, and supportive of, advances in science and technology', as formulated in *Dreamscapes of Modernity* (Jasanoff and Kim (eds) 2015), bears significant potential for our analysis of Africa's conservation landscapes. The notion of a promising future and efforts to persuade international donors as well as rural dwellers of marginal rural areas is omnipresent in the field of conservation, especially the advertisement of conservation projects, tourist destinations, and the benefits of trophy hunting for successful conservation. The promotion of a sustainable and economically beneficial vision of conservation informs current decisions of policy-makers, and the use of technological surveillance to monitor popular wildlife species evokes the belief that future conservation can be carefully designed and precisely drafted in order to achieve desired goals.

In this contribution we examine past and present conservation visions of major actors in the field: colonial administrators, state officials, conservation organizations, activists, donors, and NGO leaders. Inspired by Sheila Jasanoff's and Jens Beckert's ideas on the intricate relation between future-making agendas and political action, we reflect upon the history of conservation visions and their impact on conservation planning in and for rural Africa. We describe to what extent projections of doom scenarios at different times during the 20th century influenced both international conservation agendas and the implementation of conservation projects on the African continent. We also outline how the visions of 'desirable conservation futures' were produced and how they shaped policies and conservation projects. We conclude the text with an outlook on current trends in conservation that shape the path conservation may take in the 21st century.

A short note about the methodological approach. This article is based on many years of empirical fieldwork and archival work we have conducted in southern and eastern Africa. To extend our experience to a continental perspective, we extensively reviewed the African conservation literature and policy reports to identify overarching trends and the linkages between local and regional conservation efforts and international initiatives. The focus was primarily on understanding key trends that have shaped conservation policy and implementation both historically and recently.

Conservation Scenarios in the Interwar Period

Before World War II, conservation had a distinct preservationist focus. Wildlife conservation was institutionalized in order to preserve remaining wilderness habitats and wildlife on the one hand and to expand and accomplish state-control of marginal rural landscapes on the other hand. The London-based Society for the Protection of the Fauna of the Empire (SPFE) had been instrumental in convening the two London based conferences 'Preservation of Wild Animals, Birds and Fish in Africa' (1900) and 'Protection of the Fauna and Flora of Africa' (1933) that endorsed preservationist agendas across the continent. Representatives from Great Britain, France, Belgium, Italy, Portugal, Spain, South Africa, and the Anglo-Egyptian Sudan attended the 1933 conference. The ensuing London Convention strongly condemned African hunting but did not see the inhabitation of protected areas as incompatible with wildlife preservation (Onslow 1938). Its main approach to preservation was legislation and the strict implementation of anti-poaching laws, severe sentences for alleged poachers and the co-optation of traditional authorities in the monitoring of human-wildlife interactions. Astoundingly little attention was given to wildlife-based economies (IUCN 1963: 59). Here the outlook of an international round of experts certainly differed from expectations of colonial administrators on the ground: Ute Dieckmann (2007) describes that the German colonial administration had both political and economic goals when establishing the giant Game Reserve No. 2 (the later Etosha National Park) in what is Namibia today and so does Jane Carruthers (1995) for the establishment of Kruger National Park and its predecessor the Sabi Game Reserve.

The London Convention left colonial administrations with a great deal of liberty regarding how exactly to protect wildlife, though. Indeed, some colonial administrations were not at all in favour of large-scale conservation in the interwar years. In colonies like Tanganyika, Betchuanaland, and in both Rhodesias the fight against the tsetse fly as the vector of bovine trypanosomiasis and human sleeping sickness dominated (Giblin 1990, Kjekshus 1977). Where wildlife was thought to be a carrier of trypanosomes, it had to

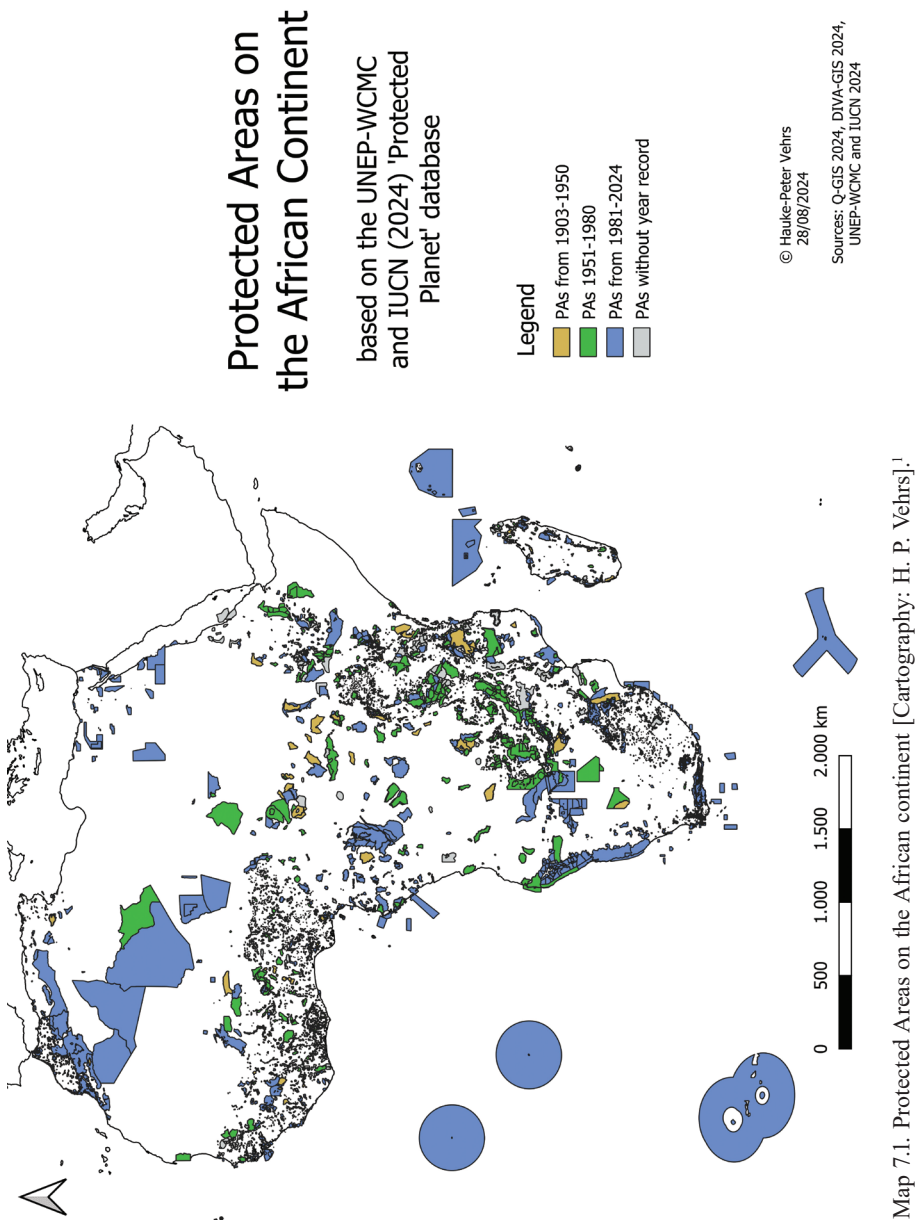
be removed. In Betchuanaland, for example, many thousands of wild animals were shot in order to counteract the spread of trypanosomiasis by eliminating potential hosts (Gumbo 2010, Morton 1996). Equally, where wildlife stood in the way of land use by colonial settlers, colonial administrations were quick to permit the eradication of wildlife from such lands.

The Modernization of Conservation and Apocalyptic Future Visions of Wildlife in the 1960s

After the Second World War, colonial politics pertaining to conservation changed, and protected areas expanded across the continent. Neumann (2002) argues that four global trends were conducive to the rapid expansion of protected areas after the Second World War: (1) the British post-war colonial development and modernization agenda for Africa, (2) the rising significance of the sciences and experts in the management of natural resources, particularly in wildlife management, (3) the expansion of international air travel, making tourism possible at an international scale, and (4) the emergence and increasing financial and scientific power of international conservation organizations (Neumann 2002: 23).

But why did the trend towards the establishment of more protected areas continue unabated after the early 1960s, when most African states became independent? While in the 1950s many African nationalist movements had promised to eliminate colonial wildlife laws (Gibson 1999: 11), by the early 1960s many African leaders had endorsed a conservationist agenda and had coupled it with visions of economic growth, development and poverty eradication. Matheka (2008a, 2008b) and Neumann (2002) describe the spectacular spread of protected areas and the transition from earlier preservationist ideas to the ideas of rational use of wildlife propagated by an international conservationist lobby since the late 1940s.

After the Second World War the Society for the Protection of the Fauna of the Empire progressively gained influence on the British Government through intense lobbying and the framing of conservation as an act of state-led modernization (Neumann 2002: 30–2). In the late 1940s, the Colonial Office adopted a determined conservationist agenda, against the distinct wish of some regional administrations in Africa. Wildlife biologists and ecologists, many of them from the United States, argued for a clear separation of agriculturally used lands and protected areas, and from the late 1950s ‘most existing and all subsequent national parks in East and Central Africa banned human settlement altogether ... Mass evictions became a key management strategy in the new national parks’ (Neumann 2002: 34). Lekan (2020) shows for the Tanzanian case how German zoologist Bernhard Grzimek succeeded in convincing Julius



Map 7.1. Protected Areas on the African continent [Cartography: H. P. Vehrs].¹

¹ In our analysis 2063 protected areas (out of 8400) were without record of year in the UNEP-WCMC database; 6337 records were included and arranged in four classes.

Nyerere, the incoming President of an independent Tanzania (or Tanganyika at that time) to expand conservation areas in order to protect a global heritage area, 'the Serengeti', and thereby pave the way for high numbers of Western tourists projected to be flocking to Tanzania's national parks. Bernhard and his son Michael Grzimek's 1959 Oscar-winning film 'The Serengeti Shall Not Die' argued that 'the Serengeti could only be saved by removing Africans from this paradise' (Lekan 2020: 6). The Grzimeks' account was grim and pointed to the immediate threat to wildlife and alleged wildernesses, as did other media accounts, such as the UNESCO Courier (1967, 1969, 1973). The narrative followed the argument that the rapidly expanding African population, the trend towards sedentarization and agriculture in pastoral societies and the commodification and globalization of wildlife-based trade (e.g. trade in hides and skins, trade in ivory) would soon destroy species and ecosystems, if draconian measures were not taken.

There was much concern over whether newly instituted African governments in 1960s would endorse British or international conservationist agendas, and the likelihood that 'national parks would be de-designated en masse' (Burnett and Conover 1989: 252) was intensively discussed. In response to these anxieties the IUCN formed the 'African Special Project' in 1960, in an attempt to reach African leaders in the run-up to independence and to gain continued support for conservationist programmes.

Reports on the impending collapse of wildlife populations were one pillar of the argument for the expansion of protected areas. The second pillar consisted of broadly positive projections about the economic contribution of protected areas to national economies and local livelihoods. We will first try to gain a better understanding of the first argument. The large institutions that had emerged in the post-war period, such as IUCN or UNESCO, played a key role in promulgating the narrative of an intense threat to a precious and irreplaceable part of our natural heritage. Julian Huxley, biologist, secretary of the Zoological Society of London, then first Director of UNESCO and founding member of the World Wildlife Fund in 1961, formulated in drastic terms what was at stake:

The future of African wild life is bound up with that of the conservation of natural resources. Both are now in the balance. The next five or at most ten years will be decisive in determining whether they are headed downhill towards a point of no return, or set on the upward path of beneficial development. (Huxley 1961: 8)

But, Huxley continued to explain, conservation of wildlife was not only about the maintenance of heritage, it was also about unleashing an economic potential of considerable significance:

Wild life in Africa as a resource may be summed up in the phrase Profit, Protein, Pride and Prestige, with enjoyment and scientific interest thrown in. It can yield Profit from tourist revenue, sales of meat and trophies, and Protein from game-cropping schemes; it can be a source of local Pride and of international Prestige; while its importance as a source of scientific knowledge is very great. The best way of realizing its exceptional enjoyment value is by means of National Parks. (Huxley 1961: 13)

A flurry of international conferences on wildlife and conservation in the late 1940s and throughout the 1950s into the early 1960s affected the handling of conservation during the last decade of colonial administration and the first decade of independence. Conservation in Africa was well on the way to becoming an international concern, involving a multitude of stakeholders on the one hand and potential funders on the other whereas previously colonial administrations had dominated decision making pertaining to wildlife. In 1953 an international conference in Bukavu convened by the Commission for Technical Cooperation in Africa South of the Sahara (CCTA) and the government of the Belgian Congo, with the participation of UNESCO, IUCN, ICBP (International Council for Bird Preservation), and the Scientific Council of Africa (CSA) demanded a number of changes to the London Convention of 1933. It particularly raised the point that conservation had to play a role in development.

A number of further conferences across the continent followed (Curry-Lindahl 1969: 116–8). One essential step for a true overhaul of the 1933 Convention was the 1961 Arusha conference on Conservation of Nature and Natural Resources on Modern African States organized by IUCN and CCTA with the participation of UNESCO and FAO. The conference was attended by 140 participants from 21 African and six non-African states, and five international organizations. The goals for this essential conference were elaborated by Richard Turnbull, the outgoing Governor of Tanganyika. He summarized (IUCN 1963: 14) that (a) governments will need wildlife and wildernesses as a source of revenue and that therefore wildlife needs to be ‘exploited rationally’ as the best form of land use in many settings, (b) that the support of the rural population was essential and that public opinion needed to be convinced of the manifold benefits of conservation and the value of this ‘special African heritage’, and (c) international aid was needed ‘if the world wished to see Africa’s unique fauna preserved’ (IUCN 1963: 14).

During the course of the Arusha conference, the WWF (the World Wildlife Fund, today the World Wide Fund for Nature) was founded as a financially strong body to support IUCN’s conservation agenda and wildlife protection in emergent nations of the Global South. The founding members of the WWF read like a list of the wealthiest privateers of the Global North and from the

(former) colonies. European nobles, Western industrialists, and also South African elites were involved (Meyer 2017).

Throughout the 1960s, further conferences took place to translate the Arusha Manifesto into a convention of independent African states. At times FAO and IUCN competed with different versions of a convention (as vividly summarized by Curry-Lindahl, at that time advisor to the IUCN), before the African Union then gave the mandate to the IUCN. The Convention agreed upon in 1968 in an Algiers meeting of the organization, then, rather stood at the end of a period of rapid expansion of protected areas and the internationalization of wildlife conservation particularly in Eastern and Southern Africa. In the preamble to the convention the heads of state emphasized their hopes in the future of conservation for their nations.

Local Agency and the Establishment of Protected Areas in the 1960s

While most authors emphasize the immense international impact on conservation planning in the 1950s and 1960s, Matheka (2008a, 2008b) for Kenya and Bolaane (2013) for Botswana shed light on the role played by local agency. As it became clear that Kenya would become an independent state, conservationist organizations stepped up their efforts to secure space for conservation; they found allies in local elites, Black and white; tribal councils considered protected areas – as long as they were co-managed by them – as a way to protect their lands against emergent national elites. Politicians regarded wildlife as a source of patronage, and local councils as well as national administrators thought of wildlife and protected areas as a source of easy income. In a number of cases, local leaders saw protected areas attracting significant international funding, assistance and attention as a means of gaining security against the land politics and large-scale development projects of national states and as way to sustain their own authority within the context of the emergent independent national state. Detailing the cases of the Meru Game Reserve and the conservation areas of Maasailand, Matheka (2008b) shows the intensive collaboration of local tribal elites and conservationist activists and organizations.

Bolaane (2013) contradicts the assumption that conservation was imposed upon African populations uniformly and shows that the foundation of Moremi Game Reserve in Botswana's Okavango Delta ran along different lines in the 1960s. The foundation of the protected area was the result of local level cooperation between Batawana chiefs and a network of hunters-cum-conservationists. They founded the Fauna Preservation Society of Ngamiland which had members of diverse ethnic groups. It was particularly the BaTawana regent Queen Pulaane Moremi who forcefully made a case for the game reserve.

She argued that the BaTswana leadership had a long history of preserving the delta's fauna. When the reserve was gazetted local San and Bayeyi communities and even some BaTswana were alienated from access to resources previously used. In Western Zambia, Liuwa National Park was instituted in 1972 in a joint act by the national wildlife authorities and the Barotse Royal Establishment. The plains had long been the royal hunting grounds and Barotse royals saw the gazetting of a national park as a crucial step to safeguard their interests in these areas. While the internationalization of conservation in the 1960s is well researched, there is very little research on local African initiatives to gazette protected areas during that time period. Possibly, many conservationist initiatives were motivated by the idea of protecting regional interests against national agendas and of safeguarding rights of access against internal migrants. Of course, Meru and Maasai leaders as well as BaTswana and Barotse royals had their own future-making agendas in mind – about which at this stage we know appallingly little.

On a national level conservation was not uniformly seen as an opportunity for income in the 1960s. There were intense debates about the merits of conservation over other development priorities and the global movement to protect areas was perceived as hindrance against national development priorities. Delgado (1998) depicts dominant paradigms of agricultural development in Africa for the 1960s to 1980s. The quest to expand agricultural production and to attract capital to agribusinesses stood in obvious contradiction to conservationist attempts to safeguard habitats for wildlife protection and tourism. In Kenya the state promoted agricultural modernization based on industrial farm inputs, support from state bureaucracy and a liberalized agricultural market (Ajwang *et al.* 2023). In Zimbabwe (at that time Southern Rhodesia) the interests of farmers and conservationists clashed over future-oriented land use strategies (Hill 1991). Even in Tanzania, the African country that decidedly expanded conservation areas in the 1960s, such policies were challenged by ambitious agricultural modernization policies (Coulson 2013). While conservation areas expanded in the 1960s particularly in Eastern and Southern Africa such land-use changes were often conflictual and had to be enacted habitually against the future-making agendas of agricultural lobbyists and farmers.

Socio-Technical Imaginaries of Conservation in the 1960s and 1970s

How did national park planners of the 1960s envision the layout and technical functioning of national parks? One major step was the relocation of communities from lands gazetted as national park. Brockington and Igoe (2006) give evidence of many thousands of residents having been resettled in the attempt to recreate a wilderness. Figures for how many people were factually

resettled vary widely. They range from 900,000 to 14.4 million (Geisler and Sousa 2001, Geisler 2003). After people had been removed, the landscape was equipped with a new conservation-oriented infrastructure (Bollig and Vehrs 2021), and occasionally old infrastructure such as villages, old roads, or wells were destroyed. Carruthers (1995) describes how the rewilding of the landscape was set in motion in South Africa's Kruger National Park. In order to manage wildlife and to attract it to specific places a network of artificial boreholes was added to supplement existing natural wells and river courses. Additional boreholes allowed higher wildlife-stocking numbers. Dieckmann (2007) shows how artificial boreholes in Namibia's Etosha Park sunk in the 1950s and 1960s changed the landscape and shaped wildlife mobility. Where deemed necessary, park boundaries were reinforced with fences. Next to a change of hydrology, many parks were equipped with touristic infrastructure. All-weather roads were built, and in particularly prominent places lodges and camps were built and made accessible through feeder roads.

In a number of intensively managed national parks human input shaped vegetation and fauna. Wildfires were inhibited in some cases; in others an artificial fire system was established. A number of parks restocked wildlife numbers in order to become more attractive to foreign tourists. Other parks brought back wildlife that had been exterminated in the decades before. White rhinos for example were relocated to Kafue NP from South Africa's Umfolozi Game Reserve (Mwima 2001). Strict protection in some instances led to extraordinary rates of increase in game populations. Myers (1972) establishes for Hwange NP/Zimbabwe that elephant numbers increased from an estimated 560 in 1947 to 2400 in 1964, to 6600 in 1967, and to more than 8000 by 1970. The ecology of parks was impacted in other ways. The suppression of fires, allegedly kindled by small-scale farmers, pastoralists, or foragers to the detriment of the environment, resulted in bush encroachment of open savannahs (Myers 1972, Vehrs and Heller 2017) and unwanted changes in the grass cover (Owen-Smith 2011). In other instances, long-distance migrations were inhibited by fences along the perimeter of the park. Further examples of a changing park ecology as a consequence of fortress protection abound but a comprehensive history on how environmental infrastructure changed across the continent with the rapid expansion of parks still needs to be written.

Demise of National Parks and Protected Areas in the 1980s

The rapid expansion of PAs in the 1950s and 1960s was followed by a period of economic downturn in the 1970s and 1980s. Burnett and Conover (1989: 253) discuss the enormous economic burden that the rapid expansion of national parks presented to African governments and failing national economies. The

economies of sub-Saharan African countries slid into a major crisis that was conditioned by external factors (e.g. decrease of prices for mineral ores and some key cash crops) as well as internal factors (e.g. civil war and enduring insurgencies, corruption) (for a detailed summary of these different negative trends see Mendes and Bertella 2019). Structural adjustment programmes implemented under the pressure of the World Bank, in addition to major violent conflicts, led to the demise of many PAs.

Particularly in the late 1970s and throughout the 1980s poaching was rampant across the continent. This was connected to a spike in world ivory prices: while prices per kilo had been between 7 and 25 US\$ during the 1960s, in 1975 the world ivory price peaked, reaching more than 100 US\$, and then in the 1980s remained at around 74 US\$ (Martin and Martin 1992; taken from Demeke 1997: 23). There are numerous reports that describe the demise of African wildlife during these decades. In some instances, elephant populations that had increased over the two previous decades declined once again (e.g. in Tsavo NP). Especially, protected areas in tropical Africa's highly biodiverse humid forests were under intense threat in the 1970s and 1980s. For example, 10,000 ha were excised from the Volcanoes National Park in Rwanda to make way for large-scale pyrethrum farms in 1968. Only a short while later another 4000 ha were excised to allow pastoral use. The Tai National Park of Ivory Coast had lost 25 per cent of its high forest in peripheral areas only nine years after its inauguration in 1972 (Pullan 1988: 177–8). Across Africa wildlife numbers dwindled. The number of elephants shrank by about 53 per cent from about 1.35 million animals to a mere 693,000 animals between 1979 and 1989 (Demeke 1997: 20; based on Douglas-Hamilton 1980). Demeke (1997: 17) estimates that Ethiopia lost more than 70 per cent of its elephant population and Kenya lost more than half of its 120,000 elephants between 1970 and 1977. Other large game like rhino, buffalo or giraffe showed the same trends. Likewise, Reardon (1986) in his book 'The Besieged Desert' describes the collapse of north-western Namibia's rhino and elephant populations and the projection that soon all wildlife would be eradicated if appropriate measures were not taken and (Bollig 2020) shows that wildlife was close to complete annihilation in Namibia's northwest due to poaching by government officials and local pastoralists in the 1980s.

These processes led to an outcry among conservationists worldwide. Apocalyptic visions concerning Africa's protected areas abounded in the 1970s and 80s. Just as Bernhard Grzimek had warned global audiences in the late 1950s of the impending collapse of Africa's wildlife populations, now intense and highly emotional reports on Africa's 'besieged' wildlife dominated. However, conservation was no longer a regionally limited concern to protect ecosystems and species but was increasingly understood as a global concern of far-reaching magnitude.

**Reactions to the Impending Collapse of Wildlife in the 1980s/1990s:
Community-Based Approaches to Conservation as the Solution to
Africa's Conservation Dilemma**

The crisis of national parks in many African countries in the 1980s and 1990s (Lewis 1996) led to a rethinking of protected area policy across the continent in the late 1980s and 1990s. Several international developments led to a renewed optimism and reorientation of conservation: (1) the end of the grand East-West confrontation with its proxy wars in e.g. Angola and Mozambique, (2) the final independence of Namibia and the demise of the South African Apartheid regime, and (3) major international conferences like the Rio 1992 Earth Summit. Two directions were discussed: more international aid, and more community involvement. More financial engagement and more technical aid were to facilitate wildlife protection and tourism within the parks' boundaries and at the same time foster economic and social development in rural Africa.

Community-based conservation (CBC) approaches were based on a number of presumptions. (1) The lack of community support for conservation measures had resulted in a social environment that facilitated poaching and wildlife related crimes, hence to gain such local support was mandatory. (2) The weakness of administrations had led to a state of lawlessness and had left an institutional vacuum; hence local institutions had at least to support governmental organization. (3) State-controlled tourism activities in many national parks had faltered and not reached their far-fetched goals, hence private businesses had to invest in protected areas, ideally in public-private enterprises that joined private and public interests.

The simple message was that as soon as rural communities could reliably profit from conservation they would take good care of valuable wildlife resources. Wildlife-based value chains had the potential to diversify rural economies and make them less vulnerable. Community institutions would take over the monitoring and planning of conservation-related activities. Such institutions would be locally acknowledged and legitimate. Notably, then, the major concern of conservationists was how to tie in communities, how to create enduring local institutions and how to encourage public-private partnerships (Hulme and Murphree 1999, Adams and Hulme 2001).

In many places, CBC was implemented as community-based natural resource management. Generally, community-based natural resource management meant 'local groups of people ("communities") managing resources in an active manner and with some significant degree of formal (*de jure*) or informal (*de facto*) control or tenure over those resources' (Roe *et al.* (eds) 2009: 13). CBC projects linked conservation with development, sought to engage local communities as active stakeholders, and devolved some control over natural

resources to local-level institutions (Brooks *et al.* 2012). This conformed with neoliberal approaches to conservation, which stipulated that the commodification of wildlife and landscapes, and the inclusion of rural citizens in global value chains, could become a significant motor for both conservation and rural development; although only in southern Africa (notably, in Namibia, Zambia, Botswana, and Zimbabwe) has CBC been closely connected to decentralization and the devolution of rights – to natural resources in general, and wildlife in particular – to rural communities (e.g. Bollig and Menestrey Schwieger 2014).

However, community-based conservation programmes have come under considerable critique since the early 2000s. Several critical points about conservation are raised repeatedly. (1) Communities are idealized and intra-community cleavages and inequalities are not considered in planning. (2) Existing inequalities are exacerbated and the wealthy households are more likely to gain from CBC than poorer ones (Holmes and Cavanagh 2016: 205). (3) The economics of community-based conservation have been judged differently. While some bemoan negligible contributions to the local economy (Gargallo 2015, 2020), others point to sizeable community income through trophy hunting and tourism (Naidoo *et al.* 2016). (4) In many national contexts, the devolvement of rights is contested, as administrations often do not cede their prerogatives voluntarily (Cassidy *et al.* 2023). Hence, rural dwellers often end up burdened with sizeable costs resulting from human-wildlife conflict, frustrations about elite capture, and fraud and conflicts over access to natural resources (Holmes and Cavanagh 2016, Sullivan 2006, Gargallo 2015, Schnegg and Kiaka 2018). Therefore, community-based conservation demanded a deal of social-engineering for a promising future: social institutions had to be legitimized, external links forged, and support structures established (e.g. Bollig 2020 for northern Namibia, Ntuli and Machapondwa for Zimbabwe 2018, Cassidy 2021 for Botswana, Bluwstein 2017 for Tanzania).

Highly focused and active monitoring took place via local game guards. These guards were educated intensively in courses run by different conservationist institutions of higher learning. They were salaried (often at a low level though) and equipped with basic technologies with which to monitor wildlife adequately. The event-book system facilitated the notification of wildlife observations and allowed for the comparison of demographic trends in distinct wildlife populations and the ordered notification of human-wildlife conflicts. In recent years, game guards have been equipped with smart-phones and specialized apps to take photographs of spoor, wildlife, and notable sightings. Hence, community-based conservation goes along with a distinct approach to social engineering and an easily accessible monitoring technology (Hewitson and Sullivan 2023).

Apocalyptic Scenarios at the Outset of the 21st Century

Besides the critique of CBC approaches it was mainly global concerns that led to a reconsideration of conservation policies in the beginning of the 21st century. Again, for the third time within sixty years (after the late 1950s/early 1960s and then the 1980s) the looming collapse of African wildlife was dramatically broadcasted. WWF (2020) emphasizes that ‘*Africa’s unique nature and natural resources are under greater pressure than ever before*’. While previously it had been poachers and weak state institutions, now a multiple crisis caused by climate change, habitat fragmentation, and pollution-endangered wildlife was diagnosed as the cause of the impending collapse. A few entries must suffice to illustrate the doom scenario.

A World Bank communication estimates that climate change alone will result in the loss of over half of African bird and mammal species by 2100. Habitat loss and landscape fragmentation due to agricultural intensification, and the expansion of agricultural activities conditioned by growing population numbers, is an important driver of biodiversity loss (Perrings and Halkos 2015 for the continent) and biological annihilation (Ceballos *et al.* 2017 for the global scenario). Rivers have been progressively impounded for hydroelectric use, causing large-scale ecological changes in aquatic biodiversity (Mahe *et al.* 2017). Rapid deforestation linked to agricultural encroachment, and increasing commercial logging, is significant in many African countries. The explosion of invasive species is displacing indigenous animal and plant species in all biomes across the continent (UNEP 2016, Seebens *et al.* 2020). The rapid growth of agro-industrial estates, often linked to land grabs and encroachment on natural habitats through mining activities, is a further driving force for habitat change (Balehegn 2015, Batterbury and Ndi 2018). Violent conflicts in many contexts have contributed to habitat destruction, biodiversity decline, and species extinction (Merode *et al.* 2007, Brito *et al.* 2018). In a number of instances rebels and insurgents made use of national parks as strongholds benefitting commercially from the wildlife found there and using the artificially instituted wilderness as protective devise (e.g. in the Kongo’s Virunga Mts. National Park and Garamba National Park). This doom scenario underlined not only that the state had failed but also that communities simply did not have the resources and institutional capacity to address these grand problems. International NGOs, philanthropists, and donors were called to the fore to address this situation.

Conservation Practices at the Beginning of the 21st Century

If the state could not care for its PAs due to a lack of funds and local communities were too undercapitalized and operating on spatially too-restricted areas, could wealthy international NGOs or philanthropists do the job? Could they

do it perhaps in conjunction with communities and the state? While a strong increase in the number of NGOs had been observable, claiming a growing responsibility in the area of global environmental protection since the 1980s (Raustiala 1997), now they became key actors often at the expense of governmental administrations. Large international NGOs (INGOs) are often steering the flow of project money, and national NGOs become dependent on cooperating with them.

International NGOs claim to meet the dual task of supporting the African nation states in their conservation mission and thereby promoting rural development, and of meeting the global challenge of mitigating climate change. Major organizations in the field stress that economic development and poverty alleviation are crucial. Economic progress is clearly favoured over social development and participation.

These broadly positive agendas for a comprehensive move towards conservation are not paralleled by similar enthusiasm in governmental and intergovernmental plans and visions, which were formulated in considerable numbers for the 21st century. The ‘Agenda 2063: The Africa We Want’ of the AU prioritizes economic development, continental and regional integration, democratic governance and peace and security, all aimed at repositioning Africa to becoming a dominant player in the global arena (African Union Commission and African Union Development Agency – NEPAD 2022). While Agenda 2063 aspires to create climate-resilient economies and communities and thriving wildlife populations, its focus is on technological and infrastructural development entailing high-speed railway networks, roads, shipping lines, and sea and air transport, as well as well-developed ICT and the digital economy. In the second continental report of the African Union Commission and African Union Development Agency – NEPAD – in February 2022, the strategic plans for the future development of the African continent and the implementation of Agenda 2063 are displayed (African Union Commission and African Union Development Agency – NEPAD 2022). Among its twenty goals, none are directly targeting nature conservation. They rather aim at economic development, pan-African political visions and human well-being.

On the national level, the picture is more ambiguous, due to strong regional variations in conservation activities, as well as the varied aspirations in the future plans of the governments.² In Namibia’s Vision 2030 (Government

² To assess the role of conservation in the national development strategies, we focused on several eastern and southern African countries, where extensive conservation efforts are already in place and long-term policy plans have been developed, which can be consulted to assess the role of conservation in the future plans of individual countries.

of the Republic of Namibia 2004), Botswana's Vision 2036 (Vision 2036 Presidential Task Team 2016), Zambia's Vision 2030 (Republic of Zambia 2006), Kenya's Vision 2030 (Republic of Kenya 2007), or Uganda's Vision 2040 (Government of Uganda n.d.) among others, conservation is not of key significance.³ More often the utilization of natural resources and the creation of an 'enabling environment' (Chapter 6 of the Namibian Vision 2030) are emphasized, with a focus on the use of natural resources and their contribution to well-being and development. In some cases, special wildlife or conservation future plans are outlined that emphasize the importance of conservation issues as part of a strategic development vision. However, these are often also funded by external partners who embrace the conservation narrative. The Kenyan Plan of the Ministry of Tourism and Wildlife (2018) for example was supported by USAID and the African Conservation Centre, which itself is funded by a great variety of partners, such as USAID, the Ford Foundation, the EU, the Netherland Development Organisation (SNV), and others.

Philanthropist Engagement

Ramutsindela *et al.* (2011) and Spierenburg and Wels (2010) have shown that philanthropist engagement in African conservation is frequent and certainly increasing, predominantly so in southern and eastern Africa. Ngorongosa National Park in Mozambique is a telling example. In Ngorongosa NP the private engagement of a US American philanthropist changed conservation strategies profoundly. Stalmans *et al.* (2019) discuss the collapse of the large mammal populations in the Ngorongosa National Park and their recovery in the post-war period and especially since the engagement of the Carr Foundation in the park's conservation efforts. Both the independence war (1964–1974) and the later conflict between the Frelimo government of Mozambique and the national resistance movement Renamo (1977–1992) left the once famous wildlife park (established in 1960) in a disastrous state. It was in the early 2000s that nature conservation began to regain momentum, particularly as a result of the agreement between the government and the Ngorongosa Restoration Project in 2008. The subsequent success story of restoration and rewilding has attracted a great deal of international attention and is in many respects considered to be a highly successful project that addresses the potential of nature conservation and development as a joint project (National Geographic 2019, Mountain Journal 2020, BBC 2015). Ngorongosa Park experienced more than a 700 per cent increase in its wildlife population from the previous decade,

³ While most official government plans contain very few references to conservation, others have a noticeably stronger orientation towards incorporating conservation efforts into the national strategy, as in Kenya and South Africa.

after the foundation of US American philanthropist Gregory Carr spent nearly 60 million USD on park management and on socioeconomic development in surrounding buffer zones since 2008 (Adams 2019). Carr's organization received tenure of the park from the Mozambique government for a number of decades. The efforts go beyond the protection of local wildlife populations and increasingly focus on the reintroduction of species that inhabited the area before the long-lasting effect of conflicts (Peace Parks Foundation 2019).

Parastatal Conservation through International NGOs

Another model of organizational reform for protected-area governance has been developed by the NGO African Parks, a highly specialized company that organizes park management on behalf of national authorities and is backed by immense international funding. Today, African Parks has a portfolio of 24 parks in nine African countries. For these parks, the NGO holds management contracts of 20 years or more. African Parks has a comprehensive mandate: in protected areas, it is responsible for both tourism infrastructure and public infrastructure in surrounding buffer zones. Law enforcement also falls under its mandate, as it coordinates armed anti-poaching units. They may arrest people to hand them over to the police later, and they may shoot in self-defence. African Parks also runs refaunation projects in depleted protection areas; for example, it relocated black rhinos from South Africa to Chad's Zakouma Park.

African Parks is supported by a vast range of North American and European philanthropic organizations, as well as the National Geographic Society, the European Union, the Wildcat Foundation and WWF, the US Fish & Wildlife Service, and the US Forest Service. The website also lists organizations as diverse as the Dutch Postcode Lottery, the Department for International Development (DFID), and various African governmental authorities, such as the Zambian Department of National Parks and Wildlife, traditional authorities such as the Barotse Royal Establishment of Zambia, and less transient funds, such as the Adessium Foundation and the hedge fund Acacia Conservation Fund (Offshore) Ltd.

While African Parks runs the management of protected areas on its own, the Frankfurt Zoological Society (FZS) developed a business and management model that tends more towards co-management between NGO and administration. In 2007, Zimbabwe Parks 'invited' FZS to support Gonarezhou National Park, Zimbabwe's share of the giant Limpopo Transboundary Park. FZS was instrumental in developing a 10-year management plan in a comprehensive stakeholder process. The plan entailed the establishment of the Gonarezhou Conservation Trust, which has a mandate to assume all management responsibilities since March 2017. The trust is directed by a

board of six trustees, nominated in equal numbers by ZimParks and FZS. The trust has employed a number of senior management positions and has appointed a finance and administration manager. Recruitment of staff from communities living adjacent to the park is prioritized. The FZS runs similar projects in Tanzania and Zambia, where, for example, the North Luangwa National Park is managed along similar lines. Unlike African Parks, FZS finances its projects through a combination of donations and public funds (ministries and governmental agencies, but it also has a strong international orientation in acquiring such funds).

Transboundary Conservation

Transboundary conservation with aggregations of different legal statuses across international boundaries is yet another approach that gained considerable attention over the past two decades in southern and eastern Africa to expand the reach of protected areas.

The South Africa-based Peace Parks Foundation has been the driving force behind transboundary conservation projects, conveniently highlighting their contribution to conservation, development, and peaceful transboundary relations. The Peace Parks Foundation is funded by a vast array of national South African and international funders, ranging from De Beers and Anglo American (a multinational mining company) to the US International Bureau of Narcotics and Law Enforcement Affairs and the Deutsche Post Foundation. Their website lists dozens of funders and partners but does not disclose what amount of money each donor leaves to the foundation, how long-term their support is or what roles the partners have. The Kavango-Zambezi Transfrontier Conservation Area KAZA TFCA) with 520,000 km² of land, and the Greater Limpopo Transboundary Park with 35,000 km² of land (with current plans to expand it to nearly 100,000 km²), have gained the status of the world's largest contiguous conservation areas. In both conservation areas, existing national parks, protected forests, and community conservation areas have been fused. While national administrations are still in charge of governing protected areas within their boundaries, another, international layer of conservation governance has been added. In such transnational conservation areas, administrations combine their efforts in order to guarantee the connectivity of protected lands and the mobility of species, and to increase their attractiveness to tourists (Barrett 2013).

Conclusion: Socio-Technical Imaginaries of Future Conservation

Based on the different future visions from 20th and 21st centuries, we were able to show continuities and ruptures. Doom scenarios have been consistently used to legitimize actions and the extension of conservation measures,

which in turn are employed to sketch a bright future vision for the African conservation continent, and thus generate positive sociotechnical imaginaries (STI) in Jasanoff's sense. The necessary 'solidity to win people's allegiance' (Jasanoff 2020: 30) is being achieved as conservation initiatives have moved beyond the initial mandate to protect nature and wildlife, have acknowledged the critical role of local communities and have emphasized the essential role conservation may play in their social and economic development. However, these new dreamscapes of modernity (Jasanoff and Kim 2015) are not only inspired by positive ideas and aspirations such as community conservation, empowerment, and conviviality, but also by processes such as green militarization, increasing technification of the monitoring of conservation areas and individual wildlife through conservation sciences, and the parastatal funding of conservation areas through INGOs and NGOs. Technology thus plays an integral part in monitoring schemes and controlling conservation achievements. The latter is increasingly quantifiable through the compilation of a wide variety of data, such as GPS tracking, remote sensing to assess spatial changes (de Klerk and Buchanan 2017), real-time tracking to monitor wildlife and livestock movements (Wall *et al.* 2014, Schieltz *et al.* 2017), or the provision of weapons for rangers to engage in conservation conflicts. The technological solutions being developed are not always the same.

A novelty of the 21st century is probably that the future conservation vision – which was previously driven by a few, mainly Western actors – is now open to multivocality and a growing relevance of African perspectives. A prominent example is the debate on trophy hunting in southern Africa and its contribution to a conservation strategy that combines wildlife conservation with economic gains. Contemporary visions of conservation combine that (a) emerging value chains (particularly in tourism) unleash energies, foresight, and preparedness for sustainable action, (b) assets need to be safeguarded reliably and if necessary with recourse to violence, and (c) non-state actors can facilitate both previous goals more efficiently and reliably than state actors, who are relegated. These visions are strongly based on the assumption that non-action (i.e. a neglect of conservation) will ultimately result in rapid ecological demise and increasing vulnerability of rural populations.

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PART 3

FOR PRAYER, PROFIT AND
PERSISTENCE – ASPIRATIONS AND
HOPE IN THE FUTURE-MAKING IN
RURAL AFRICA

Gendered African Futures and Extreme Climate Events in Turkana, Kenya¹

MAGGIE OPONDO, GILBERT OUMA, ANNE OKETCH,
AND DENNIS ONG'ECH

Introduction

The frequency and intensity of extreme climate events is projected to increase as global warming continues to take place. This will be particularly acute in sub-Saharan Africa, which has been identified by the Intergovernmental Panel on Climate Change (IPCC) as one of the most vulnerable regions due to its high exposure and limited ability to adapt (Niang *et al.* 2014). The prolonged and severe droughts and floods act as a threat multiplier, often with negative outcomes for pastoral livelihoods such as reduced pastureland and lack of water for livestock, which inevitably lead to famine, death of livestock, and food insecurity. Climate change interacts with non-climatic drivers and stressors to exacerbate vulnerability of pastoral systems, particularly in the arid and semi-arid lands (ASALs) of sub-Saharan Africa. At the same time, this will make the poverty and inequality that already exists worse and create both new risks and some opportunities for these communities (Niang *et al.* 2014, Olsson *et al.* 2014). Extreme climate events such as drought and floods continue to have devastating impacts on the pastoral economy in northern Kenya. These impacts, however, can be reduced by effective response strategies such as diversification of livelihoods and community-based early-warning systems that integrate both the indigenous and conventional weather forecasts. This reduces reliance on climate-sensitive livelihoods. It also allows for better water

¹ This paper draws on research findings of the project C03 'Green Futures' of CRC/TR228 'Future Rural Africa' and the 'REACH Kenya Programme' funded by the German Research Foundation (DFG) and Foreign and Commonwealth Office (FCDO) respectively. The paper does not represent the views of the funding organizations or any other body; the authors alone are responsible for any shortcomings.

management and the early sale or destocking of animals as measures to make pastoral livelihoods more resilient (Senaratna, *et al.* 2014, Ndiritu 2019) in the face of increased frequency and intensity of extreme events.

This chapter explores how intersecting social identities such as gender, age, and marital status shape community responses to extreme climate events in Turkana, Kenya. By using an intersectionality lens, it unpacks the differentiated vulnerabilities and adaptive capacities among community members and how these influence access to early-warning systems and alternative livelihoods. The chapter draws on empirical data to reveal both the limitations and opportunities that arise in adapting to climate extremes. It highlights the dynamic interplay between climate change, socioeconomic factors, and cultural practices, offering insights into how pastoral communities navigate a rapidly changing environment. Understanding these localized, gendered experiences is crucial for designing inclusive and effective climate adaptation strategies.

The impacts of climate extremes in Turkana create a vicious cycle where communities are driven to take actions that further degrade the rural environment in order to cope with immediate challenges. In response to these climate extremes, communities often resort to short-term coping mechanisms to survive, such as overgrazing of available pastureland, cutting down trees for firewood/charcoal, and over-extracting water resources. These immediate coping strategies often lead to environmental degradation. Overgrazing reduces vegetation cover, leading to soil erosion and loss of fertile land. Deforestation for firewood/charcoal further diminishes the land's ability to retain water and support diverse plant life. Over-extraction of water depletes local water sources, making them less reliable. In the face of a changing and variable climate, the future of the rural community in Turkana is greatly compromised. The degraded environment becomes less resilient to future climate extremes, which in turn increases the rural community's vulnerability to future climate events. The increased vulnerability and compounded challenges force the rural communities to continue or even intensify their environmentally degrading practices, perpetuating a cycle of degradation and vulnerability. Degraded environments are less resilient to climate extremes, making rural communities more vulnerable to future events.

Gender interacts with other intersectional inequalities to shape people's vulnerabilities and capacities to respond to the impacts of extreme climate events. The utilization of an intersectionality lens in climate-change-adaptation and vulnerability studies is an attempt to move away from the simplistic binary gender analysis, which tends to ignore or take for granted the nuanced differences of the seeming homogeneity among men and women (Demetriades and Esplen 2009, Arora-Jonsson 2011, Dzah 2011, Carr and Thompson 2014, Ravera *et al.* 2016, van Aelst and Holvoet 2016). Crenshaw (1989) is credited

with coining the term intersectionality, which she first used in feminist scholarship to show the marginalization and power struggles of African American women, who face double discrimination because of the intersection of their identities in terms of race, gender, and class, amongst others. The application of an intersectional framing in climate-change discourse seeks to unravel complexities by looking beyond the differences between men and women to understand how the intersections of social identities such as seniority, marital status, age, ethnicity, cultural roles, and livelihoods produce differentiated and distinct vulnerabilities and adaptive capacities in response to climate change. (Dankelman 2010, Dzah 2011, Demetriades and Esplen, 2009, Djoudi, *et al.* 2016, Carr and Thompson 2014, Kaijser and Kronsell 2014, Thompson-Hall *et al.* 2016, Jerneck 2018).

Individuals and communities are embedded in larger sociocultural, political, and economic relationships. Power dynamics that determine access to resources, information, and the availability of options and choices have a significant impact on one's ability to adapt and respond to change. Therefore, intersectionality frameworks acknowledge that the roles and responsibilities that come with different identities determine who does what, how they do it, when they do it, with what resources, and why (Tschakert 2012, Djoudi *et al.* 2016, Thompson-Hall *et al.* 2016). Studies using an intersectionality lens show how roles and responsibilities intersect with social identities to shape a person's ability to deal with climate and non-climate stressors. These studies contend that approaching climate-change vulnerability through an intersectional lens can enhance the resilience of the affected communities. Vulnerability is generated by a variety of processes and circumstances; therefore, to effectively address the range of impacts that a community or household may experience as a result of climate change necessitates the examination of the specific form of vulnerability and discrimination that people face in order to respond to it. An intersectionality lens provides a more holistic explanation for exclusion, marginalization, and inequality and is therefore useful in interrogating vulnerability and adaptation to climate change (Dankelman 2002, Wawire 2003, Arora-Jonsson 2011, Dzah 2011, Ravera *et al.* 2016, Anbacha and Kjosavik 2019, Rao *et al.* 2019).

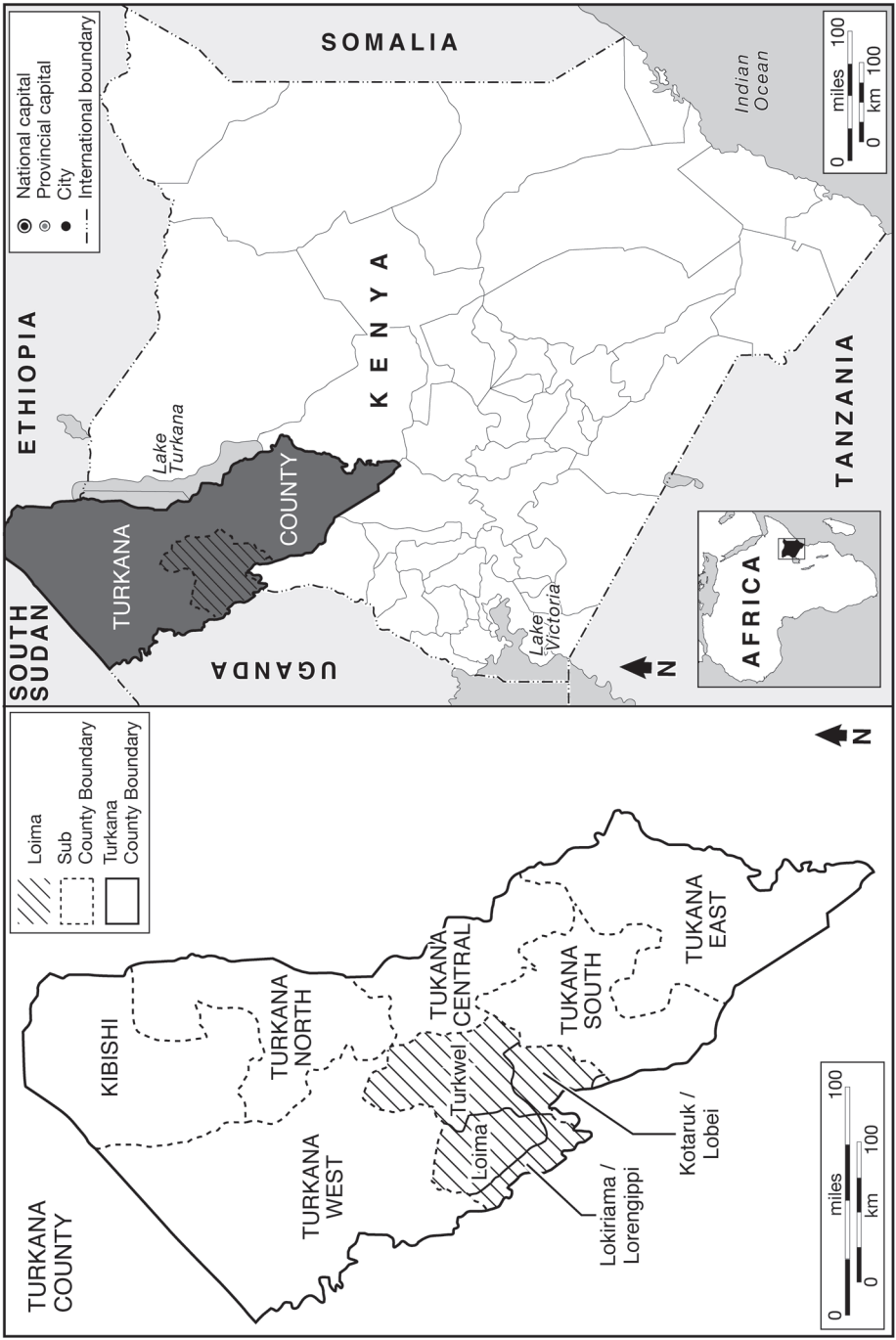
Early-warning systems have emerged as a key strategy for increasing the resilience of climate-sensitive livelihoods such as pastoralism and farming. Pastoralists and farmers may make decisions and adopt policies that will help to increase their adaptive capacity using indigenous and conventional early-warning systems. This is because early-warning systems enable farmers to comprehend risks and to anticipate and manage extreme events (Diouf *et al.* 2019, Gumucio *et al.* 2020). There is an emerging body of literature that seeks to understand how gender intersects with other identities to determine

access to and usage of adaptation strategies among communities faced with a changing and variable climate. The marital status of a female farmer is a significant factor in determining access to resources and obtaining material support from family members that enable her to adapt or become vulnerable (van Aelst and Holvoet 2016). Married women who get divorced or who are widowed are less likely than married women to have access to valley land for farming during the dry season. However, female divorcees are better off than their widowed counterparts because they can take up more non-farm income-generating activities that increase their resources and access to non-farming adaptation strategies (van Aelst and Holvoet 2016).

According to Sprout (2022), women are excluded from many of the avenues through which climate information is shared due to their cultural subjugation. One mode of dissemination is through capacity-building workshops. While these workshops are supposed to be participatory spaces that stimulate knowledge co-production, they are also places where power relations play out and can potentially worsen helplessness (Nyantakyi-Frimpong 2019, Sprout 2022). Among some communities in sub-Saharan Africa, the uptake of climate information is influenced by how seniority, religion, and class intersect with gender. For instance, in polygamous households, the junior wives were least likely to receive climate information; often only doing so through family members. Thus, the uptake of climate information is an intersection of gender, the power dynamics of information sharing, and social networks (Nyantakyi-Frimpong 2019, Sprout 2022). These studies underscore the wisdom of moving away from frameworks that see gender as a dichotomy and instead espouse an intersectionality lens. This is particularly important in climate-change discourse; if 'adaptation is to leave no one behind', then the intersection between gender and other social identities must be taken into consideration.

Study Area

Turkana County lies between longitude 34° 30' and 36° 40'E and latitude 1° 30' and 5° 30' N and is in the north-western part of Kenya, bordering Uganda to the west, and South Sudan and Ethiopia to the north and northeast, respectively (Map 8.1). It is an arid and semi-arid region with a hot, dry climate, and erratic, unreliable rainfall varying between 52mm and 480mm annually, with temperatures ranging between 20°C and 41°C. The county has two main rainfall seasons, the long rains (*akiporo*) occurring between March and May (MAM), and the short rains (*akicheres*) between October and November (OND). There is a third minor peak experienced between June and August (JJA), which is very useful for maintaining browse for livestock beyond the main rainy seasons. The driest periods (*akamu*) are January, February and September.



Map 8.1. Location of Study Area in Northern Kenya.

The county is characterized by episodic short-duration bouts of extreme rainfall often resulting in flash floods. The surface runoff and potential evaporation rates are incredibly high. Spatially, the rains are distributed generally along a south-north gradient, with more rain in the northern parts and other areas of higher elevation (Maps 8.2). During the MAM season, the rains are more intense in the northern and southern parts of the county, but the central regions are dry (Map 8.2(a)). A similar pattern is observed during the OND season. However, during this season, the drier areas push further to the north and south leaving only a small strip to the north, west and extreme south receiving relatively high amounts of rainfall (Map 8.2(b)). Observations show that the current seasonal rainfall is low, highly variable, and unpredictable over the county, with MAM and OND seasons showing decreasing and increasing trends respectively for the period 1950–2012. The JJA season also shows a slight increasing trend in the rainfall. However, these trends are not statistically significant. The studies also indicate that the increasing trend in annual rainfall for the same period is not statistically significant. The statistical insignificance shows that the observed trends are not real and may be the result of random variability in the rainfall. However, significant steady warming patterns have been evident in both maximum and minimum temperatures (Kilavi 2008, Opiyo *et al.* 2014).

The Horn of Africa region² is facing something of a climate paradox during the main MAM season, with an observed decrease in rainfall but an increase shown in the climate-model projections for the future (Shongwe *et al.* 2011, Mölg and Pickler 2022). The region has been experiencing an increased frequency of drought that has triggered frequent humanitarian crises, prompting major international responses (Table 8.1) (FEWSNET 2022). However, the observed ‘short rains’ of the OND season have shown a weak upward trend over the past three decades (Liebmann *et al.* 2014) with a similar increase projected for the future. Similarly, simulated precipitation for different climate-change scenarios shows increases in the annual and seasonal totals over the Turkana region (Mxolisi *et al.* 2011).

Significant changes in climate extremes are generally apparent in the arid and semi-arid lands (ASALs) of Kenya, and particularly in Turkana County. The county is experiencing an increased frequency of droughts, which have had profound impacts on the county’s economy and the people’s well-being (Funk *et al.* 2019). In the last three decades the frequency and severity of climate extreme events in Turkana, and particularly of drought incidences, has increased significantly (Table 8.1). After the severe drought and famine episodes of the 1970s and 1980s, it took nearly three decades for the next

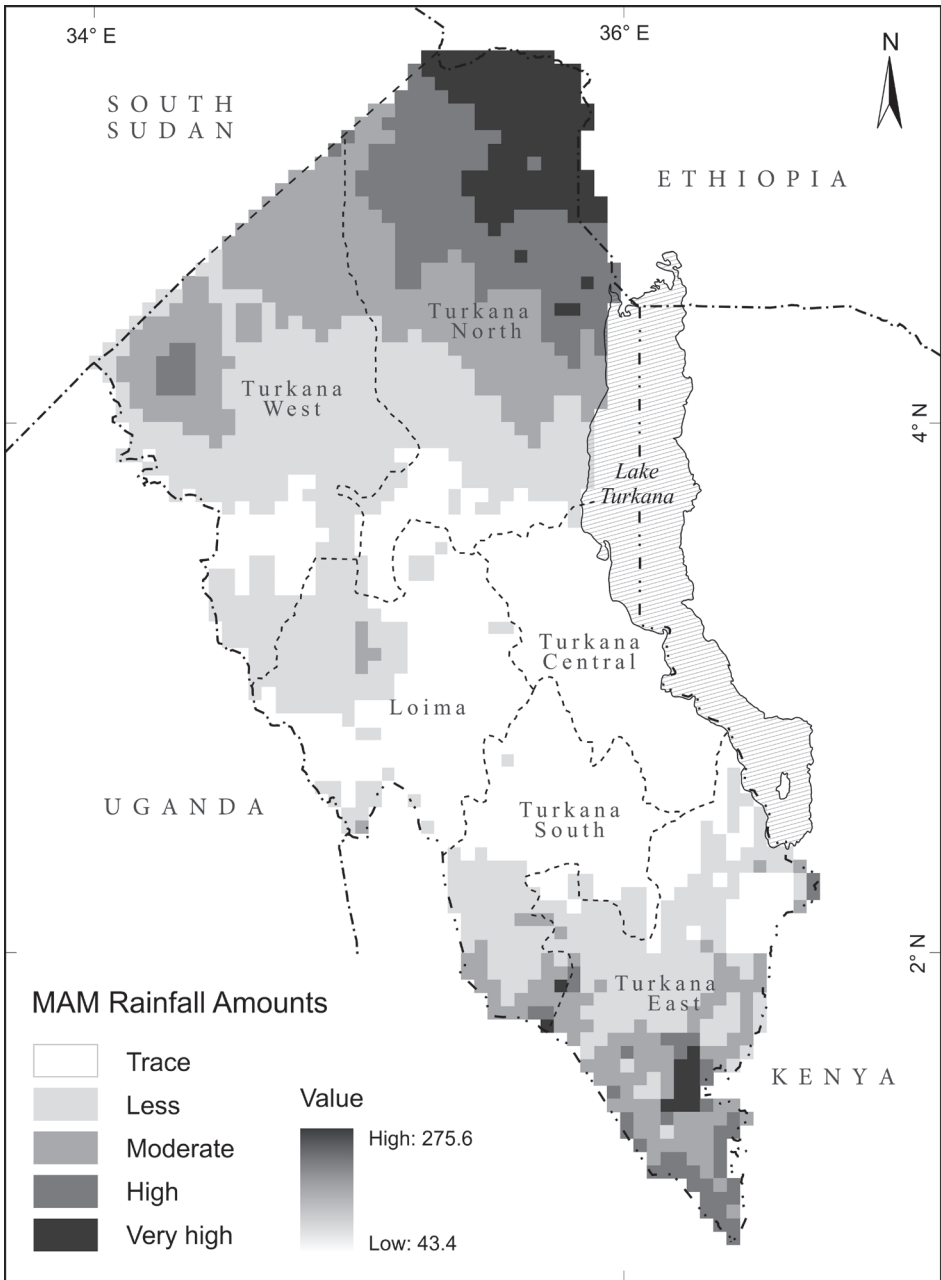
² The Horn of Africa comprises Djibouti, Eritrea, Ethiopia, Somalia, and Kenya.

devastating drought to occur in 2011. This was followed within a decade, in 2022,³ by the next-worst drought to hit Turkana, with the situation yet to be contained in 2023. Indeed, since 2016 Turkana has continued to experience perennial droughts, which are made worse by occasional flash floods (Table 8.1). Besides the negative effects on pasture and water sources, droughts have also led to massive loss of livestock, thereby compromising the resilience and adaptive capacity of the community since the people rely predominantly on pastoralism as their source of livelihood (TCG 2020). In addition, droughts in the region are associated with cross-border conflicts between neighbouring communities over scarce resources, especially water and pasture (Heiret 2020).

Turkana also experiences flooding episodes resulting in flash floods as a result of extreme rainfall events, albeit at a much lower frequency compared to droughts, but which nonetheless result in massive loss of lives and livestock. The county suffers river flooding on the Turkwel, Kerio, and Kawalase Rivers, occasioned by rainfall in the basins, which extend far north into West Pokot and Mount Elgon areas, and flash floods from episodic extreme rainfall events within the county. Indeed, climate-change simulations project a marked increase in rainfall over the region, and therefore flooding is likely to become more frequent in the future, increasing the vulnerability of the already marginalized communities (UNEP 2021). The future of rural communities in Turkana is closely tied to their ability to adapt to climate change.

As a result of land-use changes arising out of socio-economic activities in the urbanized parts of the county such as in Lodwar Town, the impacts of flash floods have been more severe and have led to the loss of livestock, lives, property and displacement of people (Table 8.1) (Achoke 2020). Rainfall may cause more acute and severe problems than dry spells, because the rapid onset of flash flooding, as well as the relative rarity of such events, means that the population and authorities are less prepared to deal with the consequences (Haines *et al.* 2017). In October 2019, the entire Lodwar Town in Turkana Central, with a population of 70,000 people, was left vulnerable to water insecurity due to flooding that destroyed the boreholes supplying water to the community, while over 5000 people were displaced by the floods (Figure 8.1). Furthermore, flooding incidences have always affected transport and in extreme cases led to the loss of lives in this region.

³ This is attributed to a combination of anthropogenic warming, Indian Ocean sea-surface temperatures, and La Niña together contributing to four consecutive dry rainy seasons, which is unprecedented in the 70-year precipitation record for the Horn of Africa (NASA's Earth Observatory).

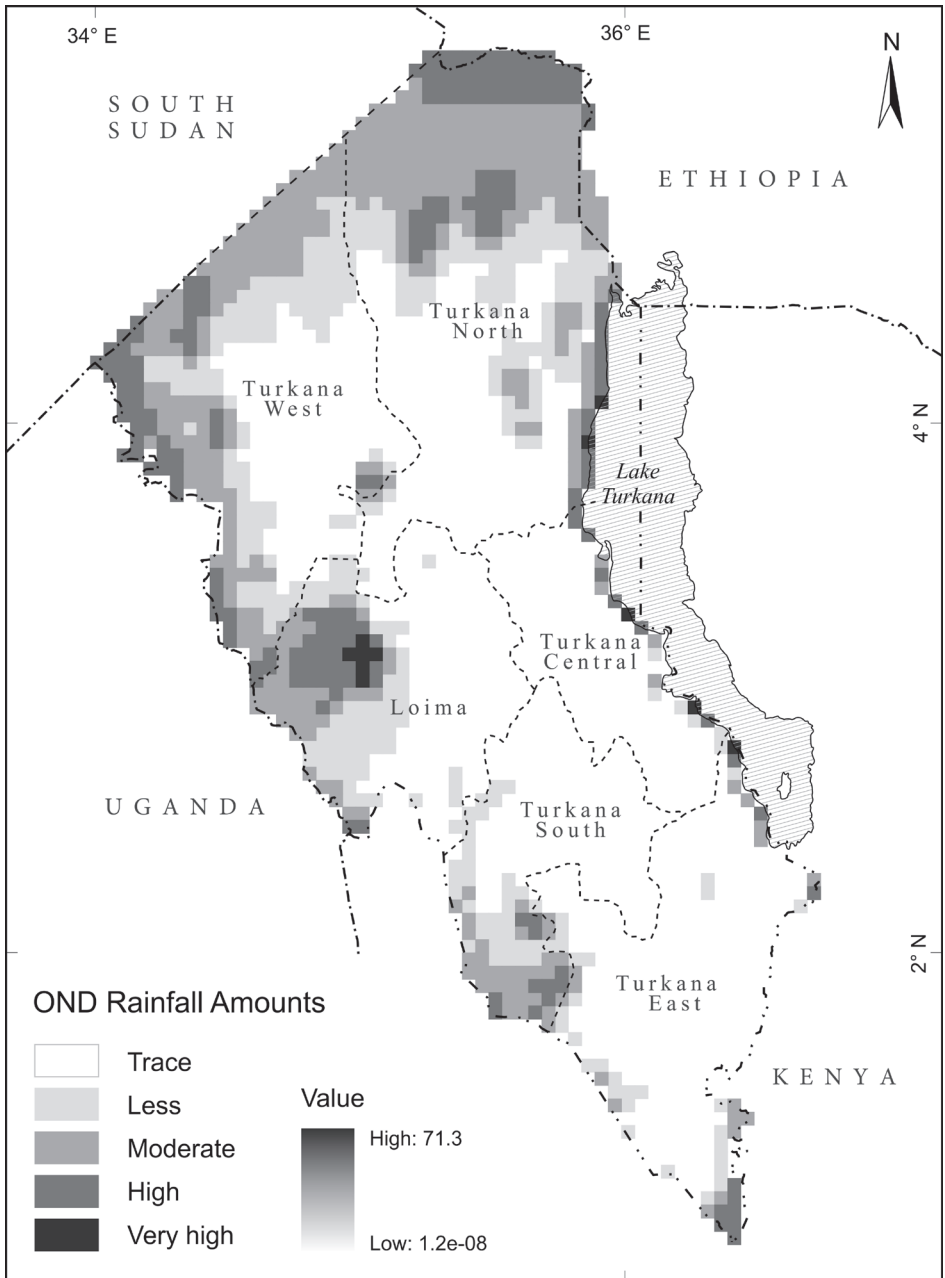


Map 8.2(a) (Above) MAM Rainfall Amount & 8.2(b) (Opposite). OND Rainfall Amount Seasonal Spatial Distribution of Rainfall in Millimetres (mm) [Cartography: M. Feinen].

* From climatological records, in the legend:

Trace indicates rainfall falling, but not enough to be measured reliably by instruments

Less indicates rainfall below 43 mm for MAM season, and 4 mm for OND season



Moderate ranges from 43 to 93 mm for MAM season, and between 5 -19 mm for OND season

High ranges from 94 to 142 mm for MAM season, and between 19 – 47 mm for OND season

Very high indicates rainfall exceeding 142 mm for MAM season, 19 mm for OND season

Data source: (<https://iridl.ldeo.columbia.edu/SOURCES/UCSB/.CHIRPS/.v2p0/.monthly/.global/.precipitation/dataselection.html?Set-Language=en>)



Figure 8.1. Women fetching water from a borehole in Turkana Central. [Photo: Dennis Ong'ech].

Methods

This study employs an intersectional lens to interrogate the gendered nuances that are fundamental for pastoral communities in utilizing various strategies to enable them to build both immediate and future resilience to climate extreme events. It examines how gender interacts with other demographic characteristics to determine women's and men's access to and usage of response strategies to build their adaptative capacities. This study used a mix of qualitative and quantitative methods to collect data from both primary and secondary data sources. It also relies on some research findings from the REACH Kenya Turkana Observatory;⁴ however, the key primary data for this paper is drawn from a study conducted in Loima division, Turkana County (Map 8.1) in 2019 as part of the 'Green Futures' project.⁴ A household survey was carried out with 120 respondents (50 per cent female and 50 per cent male), this was complemented by 12 focus-group discussions (FGDs) and 17 key-informant interviews (KIIs). The FGDs were homogeneous, comprised of female and male groups that were then stratified by age group (18–40, 40–60, and over 61 years). The FGDs had an average of 10 participants per group, and a total of 122 community members participated

⁴ See Acknowledgments section for full details of these projects.

in the FGDs. The interviewees in the KIIs included traditional forecasters or *Emurons* and other key stakeholders – such as officials from nongovernmental organizations (NGOs), the National Drought Management Authority (NDMA), and the County Meteorological Office – that work with households in Loima to build their capacity in coping with climate extreme events.

Findings and Analysis

The study collected data on gender and other variables such as age; marital status; household size; level of education; type of livelihood(s); climate-change knowledge, attitude and practice; source and utilization of climate information, and early-warning systems. The gender lens is initially juxtaposed with multiple variables to analyse the relationship between them, in order to understand the correlation if any amongst these different variables. A further analysis seeks to understand how these variables influence the coping strategies that determine whether the community in Loima has become more vulnerable or can adapt to the impacts of climate. The findings indicate that Loima has a more youthful population, with almost two thirds (60 per cent) in the age group of 18–40 years, whereas 21 per cent and 19 per cent are middle-aged (41–60 years) and elderly (over 61 years), respectively. Most of them are married, with 40 per cent having received formal education; more than three-quarters (78 per cent) of those with formal education are male rather than female.

The level of knowledge, attitude and practice with regard to climate change is a fundamental criterion in assessing the adaptative capacity of a community and determining its future. Almost all (95 per cent) of the respondents in Loima are aware of both the changing and variable climate and its impacts, and there is no significant gender or age difference in the level of awareness. They have noticed changes in rainfall patterns and the intensity of the droughts. ‘There are changes because there are times when it rains and there are times when it doesn’t rain. In the past whenever we would see clouds it would rain. These days we can even go for three years without rain’ (Female FGD participant, aged 37 years). The rains have become more erratic and variable, and it does not rain as expected, which has had an impact on their livelihoods. They have noticed the increased intensity and severity of droughts, and the participants indicated how each successive drought is seen as the most severe they have witnessed, until the next one occurs – so the severity continues to increase, with rising temperatures that are often unbearable, as narrated by a 45-year-old male FGD participant.

If you look at the current drought we are in, you can’t help but wonder if the sun is in the same place it usually is, or if it has come down a little bit lower or what has happened because it is too hot. If you look at the trees they have been burnt by the sun and they have dropped all the leaves. The drought is the most severe that we have seen.

Table 8.1: Historical Record of Extreme Drought and Flood Events in Turkana.

PERIOD	DROUGHT	FLOOD	IMPACTS
1960 to 1970	✓	1964; 1965 & 1970	Displacement. Loss of lives. Livestock deaths. Cattle raids. Disease outbreaks.
1971 to 1981	✓	1971; 1975; 1977; 1978/9 & 1980	Reliance on relief food. Massive livestock deaths from starvation and disease. Devastation of the drought aggravated by the risks of cattle raids, livestock diseases, and locust invasions.
1982 to 1992	✓	1983/4 & 1991/92	The impact of this drought in the Horn of Africa brought to the attention of the world culminating in the song 'We Are the World'. Almost half (45%) of the households received relief food. ¹
1993 to 2003	✓	1991/92 1995/96 & 1999/2001	Floods cause cholera outbreak. Displacement. Loss of lives. Livestock deaths. Cattle raids. Disease outbreaks.
2004 to 2014	✓	1997/98 2004; 2005; 2008/9; 2010 & 2011 2004; 2009 & 2011	El Nino Floods. In 2011 the Horn of Africa suffered the most severe drought in 60 years with 14 million people affected by food insecurity. Turkana households lost an estimated 50% to 70% of their livestock. ² Flash Floods.

2016 to date	2016; 2019 & 2020	✓	In October 2019, the entire town of Lodwar in Turkana Central with a population of 70,000 people were left vulnerable to water insecurity due to flooding that destroyed the boreholes supplying water to the community while over 5000 people were displaced by the floods.
	2017; 2018; 2020 – 2021 & 2022	✓	In 2022 the Horn of Africa suffered the most severe drought in 70 years with 21 million affected by food insecurity. The most severe and longest-lasting drought, encompassing four consecutive below-average rainfall seasons in 2022. The Horn of Africa is facing the longest and most severe drought on record, threatening the lives of millions of people. Drought and high food prices have severely limited many people's capacity to farm crops, rear livestock, and purchase food. ³

Source: Compiled from FGDs and various secondary sources.

Notes

1 Akall (2021)

2 Bersaglio et al. 2015, p. 689

3 NASA Earth Observatory [<https://earthobservatory.nasa.gov/images/150712/worst-drought-on-record-parches-horn-of-africa#:~:text=As%20the%20end%20of%202022,raise%20livestock%2C%20and%20buy%20food>]



Figure 8.2. Turkana youth scooping water from a pit dug into a lagga (seasonal river) in Nakiria, Turkana Central. [Photo: Dennis Ong'ech]

The increased frequency of droughts does not give the community time to recover and so they are trapped in a vicious cycle of food and water insecurity (Figures 8.2. and 8.3), which then erodes their livelihoods, leaving them more vulnerable. They said that even though in the past they had experienced severe droughts, which would kill all their livestock, they were able to bounce back by restocking. This is because after the drought there would be enough rains for pasture and water for the livestock to reproduce and replace what had been lost.

However, in the last three decades there have been persistent successive droughts, and then when it rains it results in massive floods that cause a lot of damage. As illustrated by a 67-year-old female FGD participant: 'There was a very severe drought recently when we lost several people and livestock;



Figure 8.3. Floods in Kanamkemer ward in Turkana Central in 2019. [Photo: Dennis Ong'ech]

thereafter it rained so heavily causing floods that drowned people and livestock. Since then we have not received any rain’.

The members of the community in Loima employ various strategies to enable them to cope with the impacts of climate change. These include migration in search of pastureland and water for livestock (Figures 8.2 and 8.3) or relocating to urban areas in search of employment; engaging in petty business such as weaving, charcoal burning and broom making; and relying on relief food. The strategies employed are not only gender-specific but are at times determined by age and marital status. The young unmarried men often migrate into urban areas to be employed as casual labourers or drive bicycle or motorcycle taxis known as *boda bodas*. Weaving, which is predominantly done by the married women, is the activity that most people are practicing (34 per cent) livelihood in Loima. The main source of raw material for weaving is the leaves of the

Doum palm tree, which grows well in hot dry climates and is found along the Kalawase, Kerio, and Turkwell Rivers and around Lake Turkana. The *Doum* fruit is an important source of food when there are droughts since it is a perennial crop. The dominance of weaving (34 per cent) as a major source of livelihood⁵ for women is not in tandem with their traditional productive roles in small-livestock keeping. With increasing frequency and severity of climate extreme events resulting in the death of cattle, men are gradually taking over the production of small livestock from their female counterparts. Although pastoralism is no longer dominant, it is still the second most frequent (25 per cent) livelihood practised by married men that are 40 years of age and above. Pastoralism as a major source of livelihood is under threat because the pastoralists are no longer able to migrate as much as they used to from place to place in search of pasture and water for their livestock because of the privatization of communal land, as narrated by a 63-year-old female FGD participant:

In the past the only way that our livestock multiplied was by migrating from one place to another in search of pasture and water. Nowadays people can only zero graze because there are no spaces for people to graze as everyone now owns a piece of land. If you graze on another person's land they will chase you away. The livestock being reared in the homestead will not last for long because they don't have much to eat.

Both men and women (16 per cent of those between 18 and 60+ years of age) burn charcoal for a living. According to a 36-year-old male FGD participant: 'We go into the forest, and we cut down the trees that are dry and we burn charcoal from them'. Others go down to the riverbeds to plant vegetables which they sell to restaurants in the more urbanized parts of the county. The shift from a pastoral economy to alternative livelihoods can be seen as a response strategy to minimize the risks of extreme climate events. On the other hand, the cutting down of trees and overgrazing lead to a decline in biodiversity, which is crucial for rural ecosystem future resilience. Overdrawing from water sources to meet immediate needs can deplete aquifers and surface water, reducing water availability in the long term.

There is also a relatively small proportion (8 per cent) of people who do not practise any form of livelihood – 60 per cent of whom are elderly widows

⁵ Prior to the 1980s, weaving baskets, mats, and roofing material in Turkana was mainly for subsistence purposes. However, since the 1980s, weaving has become commercialized and is organized by women's groups; some woven products have markets not only outside the county but also in Europe and North America, generating a steady income for the women.

and 30 per cent elderly widowers. They indicated that they have been unable to recover from the impact of successive climate extreme events that have eroded their pastoral livelihoods. The hopelessness of the elderly, who have no source of income, is aptly stated by an elderly male FGD participant: 'We look up to the government for aid because it is the only institution that can be our source of help because we cannot depend on the rain'. The challenges faced by this group reflect the interplay of gender, age, marital status, and type of livelihood in exacerbating vulnerability. The proportion of those who do not have any form of livelihood is bound to increase, affecting the elderly widows and widowers. The reality of vulnerability of the elderly is reflected in the naming of some of the extreme climate events. In the FGDs, the participants narrated how the flooding event in 2007 got its local name: '*Lomaale* is the name of an elderly man who was carried away by the floods ... the floods were named after him, because he was killed by these floods and all his property was also carried away'. As Dankelman (2002) points out, droughts have devastated the already limited resources to which men and women have access, thereby aggravating gender inequality and poverty.

The importance of early-warning systems in increasing the resilience of communities to the current and projected impacts of climate change cannot be over-emphasized. The main sources of climate information in Loima include the Kenya Meteorological Department (KMD),⁶ National Drought Monitoring Authority (NDMA), nongovernmental organizations, and *Emurons* (traditional forecasters). The *Emurons* use goat entrails to predict expected rainfall, droughts, conflicts with other communities, and livestock and human disease epidemics. The KMD disseminates weather forecasts through the local radio stations but also separately shares this information with NDMA and NGOs, who repackage it and share it with communities via bulletins, *barazas* (community meetings), participatory scenario planning (PSP) workshops,⁷ and mobile-phone messages. The findings indicate that 61 per cent, 25 per cent, and 14 per cent of the respondents rely on the radio, *Emurons*, and NDMA/NGOs for climate early-warning information, respectively. Regardless of their gender, the youthful and literate population and those who are not dependent on climate-sensitive livelihoods like pastoralism prefer the KMD forecasts, bulletins and phone messages. The youth also use their own knowledge of the environment to predict the weather. This is common among the youth (18–40

⁶ Since 2013, all counties in Kenya have county meteorological offices which are responsible for the dissemination of county-specific weather forecasts.

⁷ PSP workshops are part of an ongoing effort to integrate scientific seasonal forecasts from KMD with indigenous knowledge.

years) and does not appear to have a specific gender bias, as illustrated by female and male FGD participants.

The other way that we get to know that it's about to rain is when we begin to hear the bats making a lot of noise around and there's lightning at the same time. There are also instances when crocodiles begin to make some creepy sounds. Then we know it is about to rain. (Female FGD participant, 33 years)

We also use the winds to predict weather. When 'red' winds come they are strong and can even bring down homesteads and they don't spare the weakest livestock. When we see this type of wind, we expect to have very heavy rains (Male FGD participant, 39 years)

Both the middle-aged and elderly men and women, and particularly those that rely on climate-sensitive livelihoods such as pastoralism, weaving, and charcoal burning, prefer to get their early-warning information from the *Emurons* and elders. The pastoralists especially are more dependent on the *Emurons* because traditional forecasts not only predict the weather but also give warnings about impending disease epidemics, potential livestock raiders, and conflicts, which together constitute more holistic and important information for the survival of pastoralism. 'There are seers who can make prophecies of what will happen. They can say when there will be a disease epidemic, livestock raiders, rain and drought' (Participant 7, Female FGD, 55 years).

Conclusion

The community in Loima is very much aware of the intensity and frequency of climate extreme events and the impact such events have on their livelihoods and wellbeing. There is no significant gender difference in the level of awareness. They employ different strategies to cope with climate extreme events – these include diversification of livelihoods; migration in search of pastureland and water for livestock, or relocating to urban areas in search of employment; and using climate early-warning information to cope with the risks brought about by extreme climate events.

Some of the strategies employed are not only gender-specific but are also shaped by age, marital status, and type of livelihood or lack of livelihood. Weaving, which has emerged as the dominant livelihood, is gender-specific and relied upon by women of all ages regardless of their marital status. It has also been instrumental in reducing vulnerability, particularly that of female-headed households and widows, whose productive roles in small-livestock keeping has been taken over by their male folk, who have lost most if not all

their cattle during episodes of severe climate extreme events. Weaving is also a climate-sensitive livelihood since it relies on the leaves of the *Doum* palm tree for its raw material. However, the *Doum* palm is a sturdy tree, and its fruits are often the only source of food when severe droughts occur. Pastoralism on the other hand has become the exclusive livelihood of men aged 40 years and above, locking out the younger men and women. Pastoralism used to be the major source of livelihood but is now under threat of extinction and may not survive with the continued impacts of climate change. The pastoralists over 40 years of age have increasingly become more vulnerable to the impacts of climate extreme events because not only are they unable to migrate in search of pasture and water but often must also compete with other men and women in the alternative livelihoods such as the charcoal business and petty trade.

The elderly widows and widowers who have no source of livelihood also belong to the vulnerable groups. Most of them are former pastoralists who have been unable to recover from successive episodes of extreme events. The young single men, and particularly those below 40 years of age, are more likely to relocate to urban areas in search of alternative livelihoods that are not climate-sensitive such as manual labour and engaging in petty trade and the *boda boda* business. The diversification of livelihoods has enabled both men and women to cope better with extreme events. All the respondents use both conventional and indigenous climate early-warning information to build their capacities to cope with climate change regardless of gender or age. However, the preferred source of climate information is influenced by age and type of livelihood. The younger generation prefer to use conventional early-warning information, whereas the older generation, who rely on climate-sensitive livelihoods, prefer the indigenous forecasts to manage climate risks. These findings indicate that the use of an intersectionality lens reveals the interplay of gender, age, marital status, and type of livelihood in identifying both the most vulnerable and marginalized and also those who may be able to cope with future episodes of climate extreme events.

Therefore, as the environment deteriorates, the immediate challenges become more severe. Food and water shortages intensify, leading to malnutrition, health problems, and economic hardship. Communities may be forced to migrate in search of better conditions, disrupting social structures and traditional livelihoods. The increased vulnerability and compounded challenges force communities to continue or even intensify their environmentally degrading practices, perpetuating the cycle of degradation and vulnerability. In this regard, Climate extremes exacerbate rural futures by creating immediate pressures that force communities to adopt unsustainable practices, undermining the rural environment and jeopardizing long-term resilience and development.

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Reimagining Africa's Rural Futures in the Age of Mobile Money

PRINCE K GUMA

Introduction

Over recent years, there has been much interest in mobile telephony and the opportunities it presents in the global South. Of particular note is the role and impact of mobile-phone-based products and services like mobile money in overcoming structural conditions of the South and achieving better urban and rural futures. Mobile money services and products have become central tools for financial inclusion in some of the world's most marginalized communities, allowing self-registration, formal savings products such as cash-in to a mobile phone account (through a local agent), free balance checking, transfer of money from one person to another through a mobile phone; paying for products (provided that you have access to a mobile money agent or shop), cash-out money or e-money (from a local agent), and formal money transfers (between registered customers, i.e. urban-rural remittances). Broad shifts in cultural perceptions and marketing campaigns have made possession of the mobile phone a primary – or rather, critical – necessity. For example, the mobile phone has been marketed as a gadget that enables services refocused on value propositions and marketing slogans such as 'send money home', which have emphatically accentuated urban-to-rural remittance flows (Kumar 2012, Guma 2014). It has been promoted as a tool whose services are aimed at, first, large under-served populations with few alternatives for financial services (Kusimba 2021), and second, a demographic profile of significant numbers of adults who have migrated to cities in search of work while retaining strong familial and financial links to their home villages.

Since its introduction in Eastern Africa in 2003, mobile money has grown to nearly 1.75 billion accounts globally by 2024, with 656 million of these accounts in Africa (GSMA 2024). East Africa remains a stronghold, boasting over 372 million subscribers, according to surveys by the GSMA Mobile

Money Adoption survey (ibid.). The East African region not only has the highest levels of mobile money adoption globally but has also surpassed even the most optimistic predictions of telecom operators. Equally, mobile telephony has eclipsed fixed-lines as the primary means of telecommunication in both urban and rural contexts despite a myriad of social, economic, and ecological impediments (Myovella *et al.* 2020). Without necessarily going through the Western-standard and conventional evolutionary adoption path of the development and transformation of telecommunications, African regions have leapfrogged opportunities in communications (Aron 2017), accelerating economic growth, and 'opening up' and 'tapping into' new markets of unserved and underserved populations through the adoption of mobile phones and other ICTs. Mobile telephony and mobile money systems have witnessed a significant growth in market share through a broad agent network that has come to epitomize today's technological context, which is drastically different, more flexible, fluid, and mobile. In light of this development, it becomes important to examine how with their emergence and dispersion, Africa, and in particular Eastern Africa, and rural territories where such ICTs have been embraced quite enthusiastically both by providers and users, are being reimagined.

This chapter examines mobile phones (and technologies) as tools of information and rural extension, interrogating three things in particular: first, how rural identities and the understanding of community are shifting with new cross-scalar and rural-urban connections being created; second, the ways through which the rural territory is being reinterpreted through processes, lifestyles, and behaviours influenced by the new technologies and transformations; and third, how social life is being reimagined in terms of the *potentiality* of the rural 'territory' as at once a geographic place and part of an integrated space within mobile spatial systems that in turn effectively erase the distance between issuer and receiver, urban and rural, and modern and traditional. While I explore this problem within 'territories' that on the surface appear to be traditional rural settings – still remote, marginalized, and poverty-stricken – it is important to acknowledge that they have always been fluid, dynamic, and changing. Thus, my goal is not to demonstrate how or whether the new technologies result in a radical change, but rather to explain the somewhat gradual transformations that follow such new technologies *within* the context of diverse real-world locations and *beyond* abstractions in mostly English texts from a Western-trained mind (see Guma 2014).

In doing so, I remain cautious of the modernist approach to African rural futures and the role of mobile money in such futures; I acknowledge that not everything that is new makes life better, at least not for everyone. Likewise, the idea of new technologies as transformative for rural contexts is to be critiqued, as new inventions and innovations bring with them new exclusions

and contestations, adding another layer of complexity within territories and localities where they land. Science, technology, and society (STS) studies show how all technology, in all its manifestations, is context-based. Thus, I recognize the imperative of scrutinizing inherent discursive strategies and processes that produce a technology that works and relates in different ways in different contexts. I pay attention to situated referents of identity, community, and everyday life, recognizing that rural areas themselves are not static but constantly changing demographically, socially, and economically – transformed independently and through their interface with both human and nonhuman entities, agencies, relationalities, affects, and forces. Finally, I conclude with critical reflections on and lines of enquiry regarding digital rural futures in Africa drawing out the different kinds of dynamism, fluidity, and identity through varied features of lifestyle, community, tradition, and landscape.

Reimagining Rural Futures

Global debate on social and economic development has aroused much public interest in rural studies (Francis 2019). Consequently, there have been many contributions addressing the definition of ‘rural’, often drawing a line between urban and rural areas. A common tendency among these contributions from the Global South is to take ‘rurality’ for granted as a multidimensional and variable concept, both locality-based and socially constructed. This perspective views rurality as a relational model of identity, shaped by shared beliefs and experiences, and as dynamic, unstable socio-spatial constructions rather than fixed geographical entities (Halfacree 1995). While there have been many studies on rural change and changing rural societies and livelihoods (Diao *et al.* 2019, Östberg, *et al.* 2018), it is hard to find studies which look at what is sustained and what is changed.

The ‘rural’ is sometimes perceived as homogeneous and monolithic through such images as marginalization, poverty, and exclusion, but recent studies have called for the fragmentation of monolithic, unsophisticated, and naive understandings of cultures and traditions associated with rurality (Hungerford *et al.* 2022). That such attempts have mostly concentrated on conventional approaches that focus on either socio-cultural or even merely descriptive features is not in itself surprising; these attempts have for decades been mostly made in Europe and North America (Crumb *et al.* 2022), often synonymous with never-ending debates on how to define the ‘rural’ and ‘rurality’. While it may seem quite simple to describe what is and what is not rural in everyday life, suggesting a precise and meaningful conceptual definition proves much more difficult (De Gennaro and Fantini 2002: 254). Different social groups

in different social environments and with different experiences will probably have different perceptions and conceptions of 'the rural'.

More generally, it is important to reject perspectives that demarcate the term 'rural' by defining it as territory or society, where rurality is normatively conceived as more 'natural' and traditional than the urban (Rye 2004: 4, Walsh 2010). Often imageries are used to portray a single, all-embracing place and space, yet rural society, communities, and life are not necessarily homogeneous, nor are they monolithic. A disapproval of such imageries has been reiterated by Heijman *et al.* (2008: 3), who reject references of rurality as synonymous with the 'analogy to urban resilience', where despite its colloquial use, there is hardly a particular consensus among scholars about what such a definition entails or how the rural is measured.

Equally, it is important to reject tendencies that describe rural areas only in comparison with urban areas; the former are likely to be portrayed as boring rather than exciting, and the latter as more exciting than boring. In such tendencies, the rural is likely to come off as a rather more traditional than a modern territory, one that is backward- rather than forward-looking. Such images often subjectively and uncritically ascribe to 'rurality' and 'the rural' such notions as low population density, abundance of farmland, and remoteness from urban centres and cities. These images are not any different from media portrayals of a less hurried and rather dormant lifestyle where people blindly follow seasons rather than the stock market, and where they have plenty of time for gossip and petty things. Comparing the rural to what it is not can perpetuate constrained conceptions of rurality as regressive in contradistinction to urban progressiveness, and particularly views of rural places as monolithic and conservative rather than fluid, dynamic, and diverse (Crumb *et al.* 2022). This may be comparable to a conundrum synonymous with orientalism, as discussed by Edward Said (1978: 97) in which 'the rural becomes an "object" of study, stamped with an otherness – as all that is different, whether it be "subject" or "object" – but of a constitutive otherness, of an essentialist character....' (*ibid.*, Araki 2001: 177). In the end, it is important to view and to discern the rural and rurality as ever changing and transforming both in terms of lifestyles as well as spatial aspects of population density and built-up structures.

In Africa, research is experiencing a 'turn' toward the rural and rurality, as socially and culturally constructed categories are gaining considerable terrain in scholarship (Chigbu 2013). For example, fluidity is pre-eminently imperative for areas where cultural, ecological, and economic dimensions are closely intertwined. It is my view that, in a rural area that is primarily influenced by ubiquitous mobile-phone-based products and services like mobile money systems and applications, the socio-economy and ecological culture of the

rural area is by and large likely to manifest and transform in ways that are fluid and dynamic. And yet, not much scholarly work exists about this reality: while contemporary researchers have tried to get away from perspectives that treat rural residents as if they were ‘objects’ (Matsinhe 2011), the rural is sometimes portrayed as a passive space as if residents within such space were merely passive recipients of development, and ultimately, as if their livelihoods were solely dependent on the agency of ‘external others’. Thus, it becomes important to move beyond the predisposition in which concepts of rural and rurality are viewed as constant, static, and never changing – especially in contemporary times when modernization has brought about a technological, economic, and sociocultural revolution associated with massive transformation in rural lifestyles (Bunei and Akinlabi 2022).

This chapter relates with the notion of rurality as a territory and social space that, while belonging to fixed border areas, is being redesigned and reconstructed through dynamic ‘mobile’ spaces. I move rurality beyond its marginal relevance, questioning predetermined beliefs about rural people and communities, but also revisiting the social dynamics, networks, and lifestyles of rural people. Conceptually, I contribute mainly to discourses dealing with the relationship between mobile technologies and rural life in Africa, recognizing that these have been much more comfortable with relying on statistics, hard numerical facts, and ‘policy-relevant’ information (on farm size or farm outputs for example) than on heightening awareness of the social and cultural marginalization and experiences of rural lifestyles (McInerney 1995). As Duncombe and Boateng (2009: 1254) have noted, ‘m-finance research could be more strongly linked to multidisciplinary approaches combining social, cultural and economic perspectives, based on a more detailed understanding of the financial service behaviors and preferences of marginalized clients and users’.

Additionally, I contribute to the body of work of the sociology of money in suburban and rural areas (see e.g. Carruthers 2005) that demonstrates how money shapes and is shaped by cultural values and social relations. In its analysis, this body of work examines money, by and large, as a medium of relationship that only holds value when embedded in networks of trust (Dodd 1994). However, it does not necessarily define ways in which such mobile systems and applications are able to change everyday life for men and women in the rural or suburban areas (Donner and Telez 2008). Recognizing that their approaches have been inadequate, sometimes misrepresenting rural life and rurality with regard to mobile money usage and adoption in their theoretical, conceptual, and methodological analyses, this chapter contributes a perspective that examines the role and impact of mobile-phone-based products and services

like mobile money in not only overcoming structural conditions in the global South but also achieving better urban and rural futures.

Rurality and the Age of Mobile Money in Uganda

This section presents results from fieldwork that was conducted in two villages in Masaka and Kyotera, two contiguous districts in southwestern Uganda. Masaka and Kyotera run along the western shore of Lake Victoria between the capital city of Kampala and the border with Tanzania. The two districts were previously united as one district, and both are regions within the Buganda Kingdom, a cultural institution and monarchy with a high level of self-government away from the Ugandan state. In Masaka district, the first village of focus was Kako, located in Mukungwe subcounty. In Kyotera district, the village of interest was Kakoma, a parish in Kalisizo, an upcountry town. The two villages, Kako in Masaka and Kakoma in Kyotera, were selected because they are among the poorest and are remote settlements not automatically reached by government- and community-financing initiatives. While the contiguous districts of Masaka and Kyotera are wealthier than their immediate neighbours, the villages of Kako and Kakoma exhibit significant disparities and rural characteristics essential for this study. For example, the homesteads in these villages are often clusters of mud-brick and iron-roofed two- to three-bedroom dwellings with a sitting and dining room, and occasionally a kitchen. The homesteads also reserve grazing land, pasture land, bare land, development land, and farmland for subsistence crops, especially banana plantations. Homesteads are often connected by foot-trodden paths through forests and farms to even thicker forests, which serve as sources of firewood and sometimes water dams and wells. People tend plots, graze goats and cattle, and make mud bricks. Usually, families may consist of up to five adults and sometimes ten children in a single homestead, with most people having extensive kin across the whole village or sometimes simply in the neighbourhoods. Given the extensive nature of these kinships where many can trace their ancestry over five generations, the idea of family, kinship, and network in such communities is profound.

Methodologically, three main qualitative research methods were used in this study: participant observation, qualitative research interviews, and focus-group discussions. The interviewees and groups were drawn largely from 'the poor', 'the illiterate', 'the landless', 'the aging', 'the young people', 'the farmers and farm families', and 'the disabled'. I also identified local councillors, religious leaders, and traditional leaders as potential participants. In total, I conducted 20 interviews, 10 in each of the two communities, in addition to two focus-group discussions, one within each of the two communities. Each



Map 9.1. The two black points for Kako (Masaka) on the upper right, and Kakoma (Kyotera) on the lower left, in Uganda [Cartography: M. Feinen].

focus-group discussion involved about 20 participants. These were selected through a combination of convenience and snowball sampling. Observations included daily activities in the rural communities and interactions with the rural poor: i.e. the new forms of community envisaged in the midst of spatial access and dispersion of mobile-finance services, with emphasis on how these

redraw social life within the rural context. These methods allowed me to better understand the lived realities of the use and appropriation of mobile telephony and how these create a new identity of cross-scalar and rural-urban connections, in ways that challenge the discursive marginalization of communities most at risk of rural poverty and social exclusion. The following subsections examine such realities through the lens of everyday life, community and identity within Kako and Kakoma.

Everyday Life

Before mobile phones, literate rural residents in southern Uganda exchanged information on crucial news such as serious illnesses through letters. For the rural residents who were illiterate and couldn't write, this was perceived as problematic. Letters were less informative than speech and were often disseminated informally through trusted friends; it would often take days, weeks, or even months to receive a reply. Today, calling and the use of SMS (Short Message Service) texts have replaced most of the letter-writing that many experienced as problematic. Moreover, the creative and innovative system of mobile money – which operates through text and SMS – meets basic functionality needs and operates on the most basic handset. It takes old technology and uses it in new and innovative ways. It takes old practices of sociality and modifies and syncretizes these with more dynamic and efficient systems.

One of the old practices that have changed substantially since the emergence of mobile-money services is that of saving. Mobile money has tremendously influenced peoples' saving behaviour, where previously keeping money under mattresses or in fabric, often tied in knots, was common. Nowadays, mobile phones and mobile money are clearly substituting for traditional, unreliable savings channels. While narratives of the threat of mobile-money transformations are sometimes common in my interviews with rural residents, it is important to note that these transformations are not introducing entirely new ways of life but rather substituting what already exists.

Mobile money has also taken on the role of ensuring remittance services, substituting traditional forms of remittance transfer. Where previously people only used trustees and formal institutions including banks and other financial institutions (Schraten 2021, Kusimba 2021), mobile money has now made it possible to send money from urban centres to Ugandan villages through remittances at even lower transaction costs. Money transfers across borders are also being introduced. Especially within the East Africa region, the presence of regional cross-border banks and mobile-phone companies are making cross-border remittances relatively straightforward to implement, allowing local and cross-border mobile-money transfers. Internationally, mobile-money transfers have recently gained ground: senders are able to send money through

a remittance centre, which then transfers the money electronically to the recipient's phone. The recipient is then able to collect the money at any licensed outlet by paying a fee that varies according to the transaction. Increasingly, mobile-money subscribers can use virtual money for payments, settlements, and the purchase of goods from shops and markets. These have in many cases proven to be effective, and sufficiently reliable for the rural population to use. Without having to travel long distances and queue in traditional banks, or travel across borders, rural dwellers are now able to receive money in the comfort of their homes, as one interviewee described one of their varied experiences:

You know, if you have UGX 10,000 [EUR 2.50] and with UGX 10,000 will get you a bus ride, and back home, actually, you will save the UGX 9000 [EUR 2.30] and use the UGX 1000 to buy airtime. If you have the UGX 1000 as airtime, you can call someone and ask for the money to be sent immediately. And at your own convenience.

These remittances exert multiplier effects on the community. For instance, they have in some cases motivated young local men and non-receiving households to start seasonal entrepreneurial activities. Before, youths used to have no choice but to leave their villages for bigger cities like Mbarara and Kampala, so much so that there were not enough youths to work in farms and gardens within the rural confines. But many of those who are becoming more aware of how fast things are changing are now realizing that the countryside is indeed a fine place to live and work. A specific case is one young man who was part of a group that moulds mud bricks and then bakes them in huge ovens to make them strong and resistant to erosion by water and rain. They would sell the bricks to the remittance-receiving households for building houses on their homesteads. This highlights a multiplier or spill-over effect reflecting the family-centred money transfers to the wider community.

Mobile money is also substituting traditional ways of making monetary payments. These traditional methods of payment that often involved agents and the 'middleman' have especially been substituted by mobile means of cashing in (depositing funds), cashing out (withdrawing funds), transferring funds person-to-person (money transfer), purchasing airtime, and making mobile accounts inquiries and payments to workers. Sometimes when asked why they used mobile money, the rural residents suggested that it was the appropriate alternative to and substitute for these rather unfavourable fixed and traditional ways of spending money such as *cash*. They pointed out the need for efficiency, adequacy, swiftness and security – in addition to the fact that mobile money reduces transaction costs and risk. They said that cash or traditional bank accounts, credit cards, and traditional financial facilities were very complex to understand and later on to operate and maintain in remote

villages, and that they were a preserve of some people at certain economic levels – for instance, people wealthy enough to afford a handset.

In fact, in the true spirit of substitution, rural realities – that largely explain the essential non-existence of infrastructure in the rural areas – are surprisingly the same realities that have inspired the tremendous uptake and transformation of mobile money. For instance the absence of proper roads and accessible banks in these areas explains why a mobile phone will be popular for saving, transferring, and making real-time payments. As such, the new infrastructural concepts engineered by mobile-network operators are not only broadening the range of transactions that target the rural populations, they are also providing alternative means and are providing much more fluid and dynamic substitutes. These concepts and models have made rural spaces and territories even more dynamic and fluid.

The money-transfer application has emerged as the ‘killer app’ of mobile money – a highly innovative, powerful, and essential tool that fundamentally transforms and simplifies everyday life. It supports the indigenous and traditional settings, realities, and world-views. The sector that has benefited the most is probably education, where schools have changed from accepting traditional means of paying tuition and other school fees – such as delivering funds in person or proxy, and use of agents such as banking institutions – to using mobile alternatives. Many community schools in the region have now adopted mobile money as an acceptable means and mode of payment. They have registered with MTN and Airtel Uganda Limited, where parents are allowed to transfer school fees and other school related costs for the children. Some people paid their water bills through mobile money. There was also the case of multinationals and NGOs coming to the village that had substituted in-person payments in cash with mobile-money payments and other mobile applications to reach out to the communities and distribute emergency aid to families. Such alternatives, the participants argued, simplified their lives when they needed to access goods and services. They were cheap and easily accessible. Some research participants argued that they used electronic transaction forms for additional home goods and food items such as sugar and salt. Others used mobile money for paying utility bills for water and electricity, and to pay the salaries of their house girls or housemaids and other support staff in their homes, instead of going to the bank to withdraw cash. Such accessibility and availability mean that almost everyone in every corner of the country, community, and village has a story to tell about mobile money. The imperative of this social reality lies in the benefits that these different mobile-money applications have provided to people in such regions, including, but not limited to, storage and transfer of monetary value.

While the increasing number of money transfers from urban to rural territories through mobile phones has also increased the flow of information between people in and outside the village, one consequence is that urban dwellers are increasingly keeping away from these rural localities owing to the convenience and reliability with which mobile applications provide them. According to a Church priest,

... a lot of people here come to the village when it's Christmas. They only come to the village for the seasons' holidays. And when they come here, it's as if there is nothing to keep them there. They leave as soon as they arrive. Mobile phones have encouraged our people in the urban areas not to visit at all. They have provided an easy means of communication and sending money. People no longer need to physically come here. It is as if the major motivation for people to purchase phones nowadays is so that they can avoid expenditure on travel to the village. It is as if there is no need for the inconvenience of having to make constant trips to the countryside.

While people have less direct physical contact, they are connected through their access to mobile phones, and mobile money in particular. As remote transfers are much faster, cheaper and safer, rural communities and families easily depend on support from outside without there being a necessity for physical proximity or contact. This reality highlights the nature of new and emerging lifestyles and forms of community depictive of emergent rural futures.

Community

Without a discussion of 'ubuntu' – a communal and relational modality of the Bantu or, specifically, Baganda – the effectiveness of mobile-money applications in Southern Uganda's rural communities may not be properly understood. It is therefore imperative to provide a brief description of the process through which people in the two communities I visited, in Buganda and in South Uganda, come to be understood, communally and relationally. What is clear is the 'buntu bulamu' (the equivalent of 'ubuntu'), which is an epistemological and humanistic metaphor that embodies the significance of possessing relational, collectivist, intuitive, and contemplative ideals in a community. To be 'muntu mulamu' is to empathize and to belong with kin, friends, clan and community. It is also to ensure group harmony, interpersonal relationships and consensus over individuality. 'muntu mulamu' is a person that deserves to be integrated into the entire society if he does not already belong. Everyone in the tight-knit society is expected to have 'buntu bulamu'. It is the proper social conduct in a community in which self is bound to others. A person must always strive for communal relationships. In this way group solidarity

still remains very prevalent. The notion presumes that an individual does not and cannot exist alone but owes existence to the village and/or community. 'Buntu bulamu' recognizes the usefulness of community-centredness.

What makes the mobile-money application ideal in this case is the fact that it is not perceived as a threat to such ingrained and indigenous ideals, notions, and realities of the community. Instead, mobile money is the kind of application that people take up so they are able to carry on living their lives just as they did before it existed. In fact, mobile money seems to enhance rural lifestyles of communities through which people who are registered are able to 'connect to all' including their kin, friends, and community. It seems to provide opportunities to establish and maintain community, collaboration, and access.

Its very nature allows a collective manner of operation in a territory of scarcity and lack of abundance. Rural residents do not necessarily have strong incentives for purchasing personal phones. Mobile money thus facilitates the ease of phone sharing by smaller units in rural spaces between homes, between friends and family, or centrally at an agent shop or stand in the nearest town or community itself. This, in fact, occurs to the extent that the low teledensity in the locality does not in any way imply a lack of mobile-money use or spread. Just one mobile phone will become available to the entire village. This reality draws a lot from connections, community, and networks. In this way, mobile money seems to draw its acceptance largely from village communality and earlier patterns of livelihood. This endears it to the fluidity of rural society, lifestyle, and solidarity.

For many, mobile money is a socioeconomic tool for reaching out to close networks. Many use the system to balance social obligations with economic cooperation. Mobile money is used to strengthen social and economic connections through extended family networks, group-specific associations, and social networks. Beyond making it easier to fulfil social obligations, mobile money plays a critical role in enhancing economic networks as well. I found that for households that adopted mobile money, benefits were more cautioned from economic risk, in that they were more dependent and reliant on such real-world social ties in times of need. The ability of mobile money to truly cushion households and enhance the financial lives of underserved people is one of the reasons it has continued to be a central monetization mechanism for many households – in other words, a door-opener for the capitalist economy in rural environments. This explains its dramatic uptake, which itself is partly due to its ability to leapfrog traditional barriers including social, economic, and ecological impediments, transform the rural and rural life, and bring financial services closer to rural populations. Mobile money plays a significant role in

facilitating new forms of social interaction and maintaining inherent forms of community largely founded on long-standing cultural rules and traditions.

Thus, mobile telephony is used to strengthen communal and social networks, through necessitating social payments that are often the norm when organizing key social ceremonies such as (traditional) weddings and funerals of particular kin. In Uganda, family members, kin, and friends participate in frequent and temporary borrowing and lending during special occasions in everyday contexts, and the favour is expected to circulate over time, or at least require and invite reciprocation in the future. To this end, mobile telephony then becomes a means for maintaining presence in absence by keeping these foundational ideals alive. People are able to keep in close contact with friends and family, and their needs regardless of geography or dispersion. People are able to live up to their responsibilities through the almost mandatory reciprocal exchange of wealth, money, and gifts imperative for social sustenance and economic survival.

In addition to strengthening village sociality and solidarity, mobile telephony has also been useful in promoting micro-enterprise development in Uganda's rural markets. As the service has matured, financial institutions in particular are beginning to grow their presence strongly and are now casting their nets even wider, this time looking for potential in rural areas. Through mobile-phone-based support initiatives, financial institutions are greatly influencing the rural economy, which has been taking a giant leap forward in the past few years. As Martin and Abbott (2010: 1) argue, their influx into rural agricultural areas, for instance, represents 'one of the most profound changes in rural Uganda and many other developing countries in the past decade'. Rural residents used the service for maintaining close networks mostly through organizing savings groups, often in association with SACCOs in the region and/or solidarity organizations and associations. Women especially have established savings groups amongst close-knit friends and relatives.

Social groups and gatherings are fundamental in the rural areas, affording groups the opportunity to interact and network amongst themselves to form more targeted groups and instigate new networks and collaborations. One group that has benefited greatly from using mobile money among its services is the Responsible Motherhood Savings Group in Masaka, a key focus group in my field research. Its members said they didn't have to worry about carrying money. They didn't have to worry about carrying cash in bulk or standing in long bank queues to buy cheques. Besides the tangible benefits, mobile-money services have enhanced, among these women, a community spirit as well as collective action. They have reinforced the feeling of community among members of the village. When one of the members faced a challenge, everyone in the group gave their individual contributions, sometimes through mobile money. Such

actions gave people a sense of togetherness and strength so that people seemed to be closer to each other than was the case before. The group members argued that mobile applications such as mobile money allowed more transparency as well as more connectedness amongst themselves. Through mobile-money services, participants claimed that they had a more transparent way of pooling resources and redistributing them both according to need and also in a way that reflects a feeling of oneness and spirit of communality in how resources are owned and shared or allocated. As one of the interviewees claimed:

The rate of poverty was so high, we had less knowledge about how to save our money. But nowadays, as the projects are there, we are able to save money.

With these and many other projects, poverty alleviation appears to be a more achievable goal. Many mobile-money systems and applications have been promoted in the rural areas and have helped in organizing women's movements in the region. Women's groups have mobilized fellow women into women's associations and committees, which have been involved in setting up income-earning opportunities. Women have increasingly formed self-help groups supported and sustained by mobile-phone applications such as mobile money. Instead of radical changes, many women have experienced subtle reforms in daily life, family life, community, and networks. Women describe a better life as the ability to be a good person in the contexts of family, community, and society. They seem content with the idea of being in small family groups in which they could express their opinions, concerns, and wishes. Besides, they claim to dress better, eat better, decorate their houses and take much better care of their gardens and animals. As the cashier of a local affirmative group argued:

Before mobile money, we were left behind and excluded. Today with access to phones and money, we feel included. We feel empowered. We are even able to save up to cope up with droughts, disasters, and times of crisis through our networks who are now closer with mobile money. In times of crisis and need, I think it is a great system. Once we have got texts on the mobile phone, we can get the money immediately from our kin. There is no need to travel long distances.

Phones have intensified the kinship system in the rural areas and made rural communities far more resilient against external shocks, whether social, economic, or environmental. In times of crisis, mobile money allows last-mile resilience, where cash assistance in extremely remote areas becomes possible and much safer. This is especially relevant given that rural communities in

the past have been vulnerable and not as accessible. Enhanced options for mobile payments and savings improve living conditions and drive inclusion for households and communities.

This notwithstanding, symbolic fields such as kinship and rituals represent dominant practices and enduring meaning structures that cannot be ignored by the rural residents or overlooked when interpreting village life. To entirely understand this connection with social life in rural Uganda is to understand the idea of gifting up and down generations. It is to understand how young people give to parents, grandparents, and other close kin in their parents' generation. In this way, mobile money is able to enhance inherent informal risk-sharing networks. Most users in Southern Uganda use it to support friends, family, and relatives. It is a method for social gifting and sometimes contributing to ceremonies and social rituals and functions. In rural Uganda, sending money is closely connected to the practice of chatting or texting. Mobile money transfers between the urban and rural dwellers almost always follow a chat, a text message, a beep (or intentional 'missed-call'), or a call between the two. Mobile money in Uganda has acquired an etiquette that is often followed when using the mobile phone. Participants often indicated that they commonly used their gadgets to maintain relationships through sending money, airtime, and similar gifts.

I found that mobile-money systems were an important means through which individuals in groups and networks spread risk amongst themselves. It had the potential to allow more efficient risk sharing, whereby it expanded the geographic reach of community group-specific networks. Mobile money facilitated timely savings and the transfer of small amounts of money. For instance, Mwanje, a retired local government official in Kakoma, Kalisizo, a Muslim with three wives and 22 sons and daughters, talked about how he used SMS messaging in 2014 to organize his extended family group to send contributions to him for an emergency. The payments in total, he noted, amounted to 5,000,000 Ugandan shillings (\$2000).

In another case, a 63-year-old widow used MTN mobile money to occasionally receive upkeep from her grandchildren, who took care of her by helping to maintain her basic needs and her farm. She used the credit to purchase goods and services and maintain her day-to-day business at home. Through mobile money, she was able to save time and avoid the hustle of Ugandan public transportation from her village to town. She was also able to avoid queuing at the bank for credit and saving. She often reviewed, accounted and budgeted her transactions on her phone's memory.

According to Nakijobe, a 75-year-old mother of nine, all of whom work in the city, Nakijobe had only been able to talk to her daughters and sons about once a year before the arrival of a mobile phone in the village. Nakijobe

would endure long trips to the city when she needed some money for fees and medication, whereas now the daughters and sons are accessible to their parents through the phone and its SMS and mobile-money applications. Najijobe's testimony from Kako in Masaka was not necessarily an isolated incident as it matched the other testimonies from Kakoma, a parish in Kalisizo, Kyotera district.

Altogether, these structures exist in motion, providing a basis for generating diverse positions and views, which will be discussed in the next subsection. Inherent in their portrayals are dominant practices that enable a re-imagination of emergent rural futures, supported by a multiplicity of symbolic alternatives, as well as rural-urban and rural-rural connectivity.

Identity

Mobile phones are increasingly conferring on village society characteristics of urban settings. With the inevitable and ongoing processes of modernization and globalization, it's not uncommon to find a myriad of new shops and kiosks or stalls in villages – influenced, reinforced and strengthened for the most part through mobile-money services and operations. Despite inherent challenges such as cost, maintenance and repair, mobile money seems to have added social value to rural life. It has become a complex entity, one associated with a multitude of geographical transformations far beyond the dominant images that portray social backwardness, suffering, and oppression. The research participants' social constructions of the rural presented in this chapter are deeply embedded in everyday rural-life contexts and are far from the generally cold and remote depictions in the media that invoke a territory inhabited by 'backward natives'. But this is perhaps also because, as John, a local resident of Kako village, argued, his village was not as remote and distant as one would normally expect a rural area to be, and it is also more dynamic and fluid now that it used to be before the advent of mobile money:

Major challenges had to do with insufficient infrastructure systems and services, as well as lack of private and non-government investment in rural areas. My village is about ten minutes from the nearest town by car. But taxis were hardly available. Transportation is no longer difficult. Access to a fair diet is no longer a constant challenge. All because I am now in a position to access credit through mobile money. While cities are often privileged to have more and better roads, hospitals and schools, people are able to choose from the few available options that are emerging here.

The rural, as one would want to think of it, is not by nature static or as self-sufficient as it used to be. While rurality has nonetheless been strengthened even further by mobile gadgets and mobile-money services, a different conception of space that relies on aspects of urbanity is emerging in many places.

A new identity is emerging in relation to much broader networks. A matrix of cultures, identities, and behaviours has become visibly apparent. Shared characteristics or traits are loudly visible, both spatially and geographically. There are many common traits of Ugandan rural communities that are becoming more apparent today and which stem from mobile phones. Mobile phones have reinforced traits and notions of diversity among social groups and rural communities. The rural has attained a new identity through varied features of lifestyle, traditions, and landscapes, especially with regard to how groups and individuals balance their social and economic capital, create and maintain ties and social networks, and share or circulate money among themselves, and also how they mediate the conflicts that are created between social obligations and personal economic needs. With these, new and specific patterns of behaviour such as maintaining family ties, closeness of communities, as well as the importance of humanity have emerged. These are mediated over the phone through mobile-money platforms provided by mobile-network operators.

The other aspect that is perhaps very clear in Masaka and Kyotera is the motivation to adopt mobile money in the rural areas. Unlike in the urban areas, where it is sometimes about class, convenience, networking, and merely the position of the consumer, rural residents initially migrated away from their existing ways only then when they were sure that the newly emerging ways were better than the ones they had been accustomed to. It was not about abundance or convenience, but rather about need and desire. It was about how one product/service was proving to be better than the existing product/service. As such, they adopted mobile money because its applications provided solutions. Whatever mobile applications were used in a community and locality, it was because of their ability to offer realistic and innovative solutions and forms of access for the individual, for a group, for a community, or for the entire village. From my observations it became obvious that its applications were appreciated for nothing other than their ability to solve genuine problems that the people faced, such as rescue in times of need, or payment of water bills or tuition fees.

Particularly interesting is the experience of one health worker who said she had not returned to her home village since her father died in 1998 as she no longer had any reason to go back just to pay homage to an almost 'empty' village. However, she further intimated that when she finally travelled to the village over 15 years later, she realized how much the rural area had changed, and explained how she had been making plans to settle and set up a mobile

clinic there to make good use of mobile-money applications (and be able to save) in the village. In another interesting narrative one herdsman excitedly described how with his smartphone he will take a picture of a sick cow and explain to his boss with details about what and where the problem is. He said he will then receive money for its treatment through mobile money, or be advised to sell it in the market, upon which he will then immediately send profits over to his boss through mobile money. As the LC 1 Chairperson for the village would confidently add, 'today, the village is not just for the poor, the old or the sick anymore; it is clear from the mobile phones that communication and the frequent use of mobile money are getting people out of the circle of total poverty'. From all these and similar responses it was possible to read the enlightenment on the faces of the participants as they pointed out how they had become educated and financially able people.

However, with the urbanization of African villages – i.e. the change of lifestyles, the transformation of community, and the spatial aspects of population density and built-up structures – the rural is losing much of its idealistic image. This is so much so that the rural is emerging as a model of 'modernity' in contrast to 'rural identity' in part due to globalization and rural-urban/urban-rural travels, but this is also the result of the usage and uptake of mobile-money services.

Even for businesses in the private sector – like the mobile-network operators, banks, and financial institutions – the rural is increasingly becoming a more dynamic and competitive environment such that they are finding that the only way they can survive is to adapt fast enough. Infrastructural changes which are largely taking root and the ever-increasing presence of mobile services are increasingly influencing lifestyles, and this in turn has necessitated new models of survival. More access and connectivity have meant more access to infrastructural facilities, and ultimately, more transformation in the traditional and conventional image of the rural, rural life, and rurality.

Suddenly, in many parts of the country, rural areas are emerging as global, dynamic, multi-faceted territories, so much so that rural life is increasingly being reshaped, redrawn, reconstructed, and generally transformed. This was sometimes surprisingly described to me by some residents as a danger for traditional forms of rurality for the residents, with some intimating rising concerns about the possibility of protecting, or at least paying more attention to, the rural and its aspects and ideals. Some residents argued that it was becoming obvious that rural areas were losing their identity. Some of these concerns are best captured in the following narratives:

I always thought that if I got the opportunity to go to the village, I would not hesitate. I used to think that in the village there was no hustling and

bustling like is the case in towns and cities. I used to think that village people live ‘down-to-earth’ lives and hardly complain about poverty as we did in the city. I used to think that if I ever had the chance of getting employment here in the village, I wouldn’t hesitate to grab it. I used to think that the village was the place you face nature in its natural non-tainted form. Not anymore.

It’s just that my village is no longer the typical traditional self that it once was. I think that urbanization is beginning to have a real impact here as the face of the city is increasingly being threatened and destroyed by these new innovations. The village is not as rural and traditional as it used to be. I do like the clean water, electricity, radio and TV, roads, cellphones, etc. But I mind that visiting it is no longer like going back in time. It’s more like a change of scenery. I still yearn for the traditional life. The rural life. Many youths in the villages now have smartphones, which they use to access services. It’s very weird.

In sum, rural areas have acquired a specific internal dynamic of changing and adapting. Although my research and fieldwork mostly focused on mobile money users’ agency, it is important to add that, while mobile telephony and mobile money was primarily driven by the private sector, the government has also played a key role in shaping and determining the success of mobile-money markets’ expansion in the rural regions. For instance, the Ugandan Central Bank has cleared the path for mobile finance, a shift that has forced a few banks to look seriously at the low-income consumer-banking market in the rural areas for the first time. Major commercial banks in Uganda such as Equity Bank, Opportunity Bank, and other micro-finance institutions have begun to extend their distributional channels to the communities that I visited. They have partnered with key mobile-network operators, leading to across-the-board cost reductions in consumer transactions, thereby integrating unbanked populations into the formal financial sector. These include those who live in rural areas, in part through rural-oriented initiatives that have been supported and enabled largely through initiatives led by mobile-network operators. With such services, products and initiatives, new alternatives to traditional banking are emerging as viable tools of financial inclusion, where these are likely to further shape Africa’s rural futures and economies in quite spectacular ways.

Conclusion

The age of mobile money offers the potential to open up the focus towards alternative perspectives on future studies and emerging Africa. As the greatest activity in mobile money to date has been concentrated in peripheral regions

of Africa, particularly rural Africa (as evidenced by studies such as Batista and Vicente 2023), where conventional banking services are entirely lacking (Babatope and Mushunje 2020), mobile telephony and innovations offer the potential to expand and embrace alternative perspectives on future studies and rural Africa. Though Africa is the least urbanized continent, its rate of urbanization is the fastest in the world. Similarly, Uganda is witnessing significant changing lifestyles, community transformation, and spatial aspects of population density and built-up structures. Its journey into urbanization is fast shaping the country's landscape, including in its enormous rural territories. Nevertheless, processes and developments leading to urbanization are still favoured over ruralization. In other words, traditionally rural areas are expected to adjust to changing lifestyles and community transformation and in spatial aspects of the built-up environment.

Consequently, a majority of the rural milieus or territories with an exceptionally rural feel are often categorized as below the poverty line, with one in every four Ugandans classified as marginalized. Digital technologies appear to offer appropriate tools in the context where the majority of residents have been abandoned to their own fate and detriment with no infrastructure at all, with the national government appearing to care more about the welfare of urban residents. Technologies such as mobile phones and innovations like mobile money appear more appropriate for rural populations that are caught in the poverty and deprivation trap. It is therefore not surprising that mobile money is having a significant impact in the social market of rural Uganda. Yet, beyond this, it still remains a question how the future of rural Africa in the digital age can be better envisioned; and what genuinely African futures in the digital age might look like from the rural perspective, beyond problematic fixations and conceptions rooted in hegemonic systems of modernity and capitalism.

In this article, I sought to show how with the emergence and dispersion of mobile-money services, 'the rural' has become more dynamic and more fluid, obtaining a new identity through varied features of lifestyle, community, traditions, and landscapes. I have explored this phenomenon within a 'territory' that is a traditional rural setting, and yet at the same time is representative of emerging and transformative aspects of mobile telephony such as mobile money. In my attempts to question how social life is imagined with regard to the potentiality of the rural 'territory' as a geographic place integrated into the mobile spatial systems that effectively negate the distance between issuer and receiver, urban and rural, and modern and traditional, I offered a snapshot of the impact of its financial services. While it is evident that mobile money is in fact integral to reimagining rurality, it is important to draw further empirical conclusions about the state of the rural.

Further research may reveal whether rural elements are in fact being preserved, changed, or recreated in urban form, and whether mobile money will eventually change how we feel about rural space, and if so what its applications, services and innovations mean for rural authenticity. It is important for future studies to examine how and to what extent an understanding of ‘rural authenticity’ in the digital age matters as African futures unfold. Finally, in the context of diminishing spaces of inclusion in the digital age, it is necessary to gain a better grasp of what kinds of disparities, vulnerabilities and exclusions are emerging or receding.

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‘Joining the church’ as a Form of Future-making?
 Il Chamus Christians’ Futural Orientations
 in Baringo County, Northern Kenya¹

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Introduction

This chapter examines how Il Chamus Christians in the Baringo area in Kenya’s northern Rift Valley narrate their conversion to Christianity, a process they call ‘joining the church’, as a way to build a promising future for themselves, their family, and their community. By understanding religious orientation and practices as forms of future making, we would like to advocate for an understanding of ‘future’, futural projects, and visions of the future that, in addition to material concerns relating to the here and now of life in rural Africa, also takes into account that these practices are shaped by eschatological and spiritual considerations. While in secular readings of the future, the two kinds of considerations and strategies are often conceived as separate and even opposed, we will stress that they represent two sides of the same coin of the future as it is envisaged and worked upon in rural Africa. Our contribution to this volume, therefore, is to enter a plea to pay more sustained attention to religion as a realm in which the future of rural Africa is made and remade.

In interpreting Il Chamus Christians’ gradual reorientation toward a Christian community and worldview as a set of actions informed by ‘futural

¹ We would like to thank all the Il Chamus research participants and their families in Baringo County for their knowledge, patience, and hospitality. Special thanks are reserved for Wilson Tiren, Glen Nakure, and Maurine Keis, our research assistants who guided us through interviews and ethnographic fieldwork and made the research possible. Thank you to the African Inland Church (AIC) in Kiserian for hospitality, the British Institute in Eastern Africa (BIEA) in Nairobi for logistical assistance, and the ‘Future Rural Africa’ Collaborative Research Centre at the Universities of Cologne and Bonn for research support and funding.

orientations' (Bryant and Knight 2019), we bring together two strands of scholarship that have tended to run along parallel tracks: studies on conversion to Christianity in Africa, and recent work on 'future-making' and futurity. Since, roughly, the 2000s, anthropologists have made actors' attitudes toward the future a guiding concern of empirical inquiry (Appadurai 2013, Salazar *et al.* 2017), and proposed analytical perspectives on the role of cultural conceptions of the future in shaping people's daily lives and struggles (e.g. Pandian 2019, Cooper and Pratten 2014). An important insight of this work is that to reclaim the 'future as a central dimension of our temporality', we need to consider the diverse modalities and temporalities inherent to future-making and tie them to specific 'futural orientations' (Bryant and Knight 2019). However, with few exceptions (e.g. Roman 2019), scholars have paid little attention to religious practice *as* future-making. The blind spot is striking given that practitioners of numerous religious traditions, in Africa and elsewhere, link their expectations and projects of future-making to religious considerations.

Scholarship on Christianity in Africa, on the other hand, has dealt with notions of temporality and futurity, usually without framing it as a matter of 'future-making'. Apart from work on millennial movements in Africa, studies on the 'why and how' (Robbins 2004: XXVII) of conversion to Christianity have shown that missionary education and the acquisition of literacy offered converts important incentives for and trajectories of future-making (e.g. Peel 1995, Jean and John Comaroff 1992, 1997). Drawing on van der Veer's work on Christian 'conversion to modernities', scholars have argued that this involved a fundamental personal and social transformation tied to the prospect of becoming 'modern' (e.g. Luig 1997, Maxwell and Lawrie 2002, Maxwell 2007, Engelke 2004). The scholarship demonstrates that Africans' decisions to espouse elements of Christian teachings and religious practices were and are intricately tied to visions of desirable futures and related temporalities (e.g. Engelke 2004).

In this chapter, we analyse how Il Chamus Christians, in their biographic accounts of themselves as Christians, make sense of their present life situation and envisage futures for themselves, their families, and sometimes their communities. Drawing on Bryant and Knight (2019), we consider 'expectation', 'aspiration', and 'hope' to constitute distinct 'futural orientations' that manifest in historically and culturally specific practices, which should be explored, rather than presupposed. Our contribution to existing scholarship is to explicitly distinguish between two kinds of futural orientation that inform religious practice: the first relates to aspirations in the here-and-now, the second centres on the aftermath (Schulz 2022). Our argument is that whereas scripture-based Christianity places much emphasis on the afterlife and eternal salvation, Il Chamus Christians highlight the importance of immediate material

and physical improvement, thus echoing concerns articulated by Christians elsewhere in Africa (e.g. Luig 1997, Engelke 2004).

We also start from a view of narration as essential to actors' construction of the relationship between the past, the present, and the future, and of their own position within this ordering scheme.

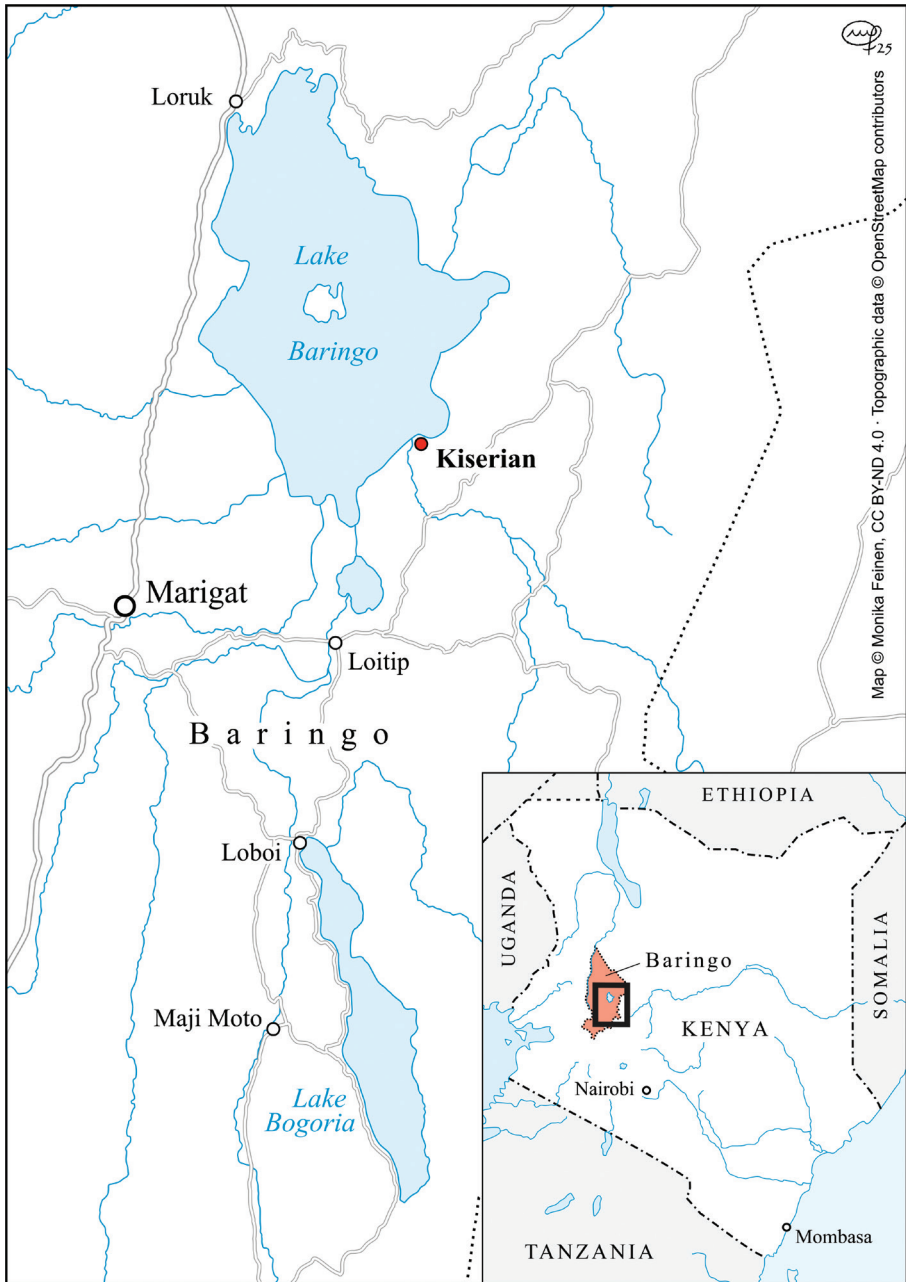
We wish to highlight from the outset that no exact equivalent to the term 'future' exists in the Maa language. Il Chamus articulate their understandings of personal growth and communal advancement through several metaphors of spatiotemporal movement, such as 'to grow' (*abulu*)² and 'to go forward' (*alokwe*, also 'progress', 'step ahead'), similarly to how notions of advancement or 'development' are articulated in other Kenyan national languages.³ Il Chamus therefore do envisage possible futures. They express their expectations and aspirations through metaphors of fecundity and productivity.

At the centre of our analysis is a particular category of Christians: pastors, catechists, and those who describe themselves as 'dedicated Christians', all of whom are associated with the African Inland Church (AIC) mission at Kiserian, an Il Chamus settlement on the south-eastern shores of Lake Baringo. Kiserian lies about 25 km east of Marigat town, a market centre located about 270 km north of Nairobi, at a distance of 100 km from Nakuru (Map 10.1). The statistical record indicates that the majority of Il Chamus identify as Christians today.⁴ Still, Christians associated with AIC mission understand themselves as a minority, lamenting that Il Chamus are difficult to convert because of their preference for 'culture' (see below) and that even those who convert are often only nominally Christians. Also, similar to other Maa-speaking societies (see Archambault 2011, Hodgson 2005), the gender ratio of church attendance is highly uneven, with women forming the majority in the parish.

² As in *utubulua Kiserian* ('Kiserian has grown').

³ Smith offers an excellent discussion of the Swahili term *maendeleo* for 'development', with its literal meaning of 'moving forward toward a specific goal, in space and time', and of fertility metaphors, such as 'moistness', that express the preconditions for personal growth and 'for achieving communal well-being and civic peace' (Smith 2008: XII, 4-6).

⁴ According to the 2019 census, 91.5 per cent of the Kiserian population identify as Christian (4869 out of total 5321, 56.9 per cent of them as Protestant). These percentages resemble those for the total Il Chamus population of which 93.8 per cent identify as Christian (26,748 out of a total of 28,523, with 45.3 per cent of them identifying as Protestant).



Map 10.1. Location of Kiserian in Kenya's Baringo County [Cartography M. Feinen].

Locating the Il Chamus

The Il Chamus live in Kenya's Northern Rift Valley, in a drought-prone area formed by the Baringo-Bogoria basin and the zone stretching from the eastern shores of Lake Baringo to the Laikipia escarpment. Livelihood conditions and strategies in the area are subject to extreme monthly and local variation in rainfall (Little 1985: 92-93, Little *et al.* 2009: 155). Totalling a population of almost 30,000 (Central Bureau of Statistics 2019, Little 2019: 135), the Il Chamus are a Maa-speaking society whose clans have Samburu, Laikipiak Maasai, and Tugen origins (Little 1992: 26-31, 1998: 446-7, Anderson 2002: 27). Age-group and age-grade differentiation is an important principle of horizontal social organization beyond family affiliation and age hierarchies, which plays out differently for men and women.⁵ Social relations and histories of movement and alliances in the area have been commonly defined in terms of clans, whose exact identities, however, have been context-dependent and shifting (Little 1992: 29, Anderson 2002: ch.1, see Waller 1993).⁶

Throughout the 19th and 20th centuries, Il Chamus modes of livelihood have been characterized by high fluctuation and flexible adaptation to climatic volatility and to political and economic transformation. They were 'herders by inclination but farmers out of necessity' (Little 1992: 33, Anderson 2002: ch.2,3), combining a mostly sedentary form of pastoralism⁷ and agricultural production with intermittent periods of predominantly pastoralist livelihood patterns that included a strongly grain-based diet between the 1920s and 1970 (Little 1992: ch.2, Little *et al.* 2008: 509).⁸ Il Chamus occupied an increasingly marginal position, first within the colonial economy and then in the national body politic of the independent Kenyan state. Their form of pastoralism has made them progressively more vulnerable to state policies that from early on affected livestock and grain distribution in the area and made them

⁵ The term 'age-grade' refers to the position occupied by individuals of the same age, such as boys, unmarried men (sing., *moran*), or elders, in an age-related hierarchy. 'Age-group' designates a specific group (recognizable by its name) that advances through the age hierarchy.

⁶ In the nineteenth century, the Baringo area was the site of considerable population movement and migration. It was common for newcomers and 'strangers' to be incorporated into allied clans (Little (1992: 29).

⁷ This mode of pastoralism, which is broadly shared by inhabitants of the area, involves temporary medium-range (20-30 km) herd movement during the dry season (Little 1992: 35).

⁸ Il Chamus simultaneously continued to rely heavily on grain (maize meal) trade and consumption, in particular during the dry season when, as part of a transhumant livelihood pattern, they divided up stock species and members of a household (*ekang*) between different areas and cattle posts.

dependent on a market-based distribution of subsistence goods (Little 1992: 61). Initially, the British colonial order generated some security and protection for Il Chamus against raiding Maasai, Tugen, and Pokot groups, and allowed the majority of Il Chamus families to move away from irrigated agriculture and into transhumant pastoralism in the 1910s (Anderson 1989: 252–4, Little 1992: 94, Little 1998: 448–9) and, starting in the 1920s, to build up significant livestock holdings throughout the 1930s and 1940s. Simultaneously, however, the colonial state undermined the long-term viability of pastoralist livelihoods by seriously reducing the size of vital grazing zones (Little 1992: 39).

The period between 1920 and 1945 was a period of major land-use change in the rain-fed crop-producing areas of Baringo, as finger millet was replaced by maize as the most important crop. Larger political economic transformations since the 1960s included a state-enforced, growing dependence of Il Chamus on grain import and consumption, effected essentially through a state-controlled export production scheme (Little 1992: 53–4).

Starting in the mid-1970s, in a reversal of the early-20th century shift from agriculture to pastoralism, many Il Chamus families increasingly relied on irrigated agriculture and dry-land farming (Little 1985: 246). This trend was prompted by several developments, among them the weakening of herd owners' purchasing powers because of a higher inflation rate for maize and other food items than for cattle; the negative effects of livestock market quarantines (Little 1992: 56–7); periods of severe drought; and the downsizing of livestock holdings for many poorer families, which meant that they could no longer rely on cattle as the main basis of livelihood. As a consequence, wealth and power inequalities between different households, while being rooted in 19th-century political and economic inequalities (Anderson 1981, Little 1992: ch.2) have resulted in growing social differentiation and socioeconomic cleavages within Il Chamus society that showed in highly unequal livestock ownership and in poorer families' higher expenditure of cash income to purchase grain for consumption (Little *et al.* 2008).

The situation was further compounded by a loss in communal grazing areas since the mid-1980s, as a result of a higher population density, intensification of agriculture and the *prosopis* invasive species. An expanding economy of violence and trans-border arms trade in northern Kenya since the 1980s (Mkutu 2005), combined with the effects of the 1992 introduction of multipartyism, end of Moi regime in 2002, and devolution since 2010 (Greiner 2013), put many Il Chamus in a disadvantaged position vis-à-vis the neighbouring Pokot.⁹

⁹ Little *et al.* (2009: 156) estimate that since the early 2000s, Il Chamus families have lost about 30 per cent of their grazing land because of violent cattle raiding and encroachment by well-armed Pokot.

The Il Chamus' successful litigation process against the Kenyan state over the *prosopis* invasive species turned them into a *cause célèbre* of successful 'lawfare' politics (Comaroff and Comaroff 2006), that is, of making the court a battlefield to gain political rights. Nevertheless, the actual economic benefits of the commodification of *prosopis* have been limited (Little 2019, Odhiambo 2015).¹⁰

As an indicator of the relative economic marginality of Il Chamus residents of the Baringo area, opportunities to generate an additional income are scarce, for women even more so than for men. Most members of a household or 'homestead' (*ekang*) lead a sedentary lifestyle, with a highly diversified family economy based additionally on waged labour, trading, and irrigated agriculture or dryland farming (Little *et al.* 2008: 509). Regardless of these activities and resources, most families strive to maintain or rebuild at least some livestock herds. Household diversification strategies reveal significant, socioeconomic cleavages within Il Chamus society; income strategies vary significantly from ecological zone of the Baringo area to another and with the respective security situation. Near the shores of the lake, families additionally rely on small-scale fishing. Young men who live close to Marigat town and tourist resorts in Kampi Ya Samaki (close to Lake Baringo), seek to generate an income from the tourist economy and by providing motorbike transport services. Charcoal production has diminished with the 2018 governmental ban on charcoal burning.

Like other Maa-speaking societies with whom they share genealogical roots (see Hodgson 2005, Straight 2007), Il Chamus historically believed in the existence of a higher divinity that rarely interfered in their daily affairs. They also solicited the support of ancestor spirits and other spiritual entities to ensure well-being and prosperity for individual families and the larger collectivity. Many Il Chamus refer to their engagements with these invisible entities not as 'traditional religion' but as 'culture'. Even if today, Il Chamus Christians use the term 'traditional religion' in contradistinction from (modern) 'Christianity', we need to keep in mind that these are emic terms inflected by missionary Christianity, not analytical categories.

The written historical record on early missionary presence among the Il Chamus is scant. It appears that the Baringo area received almost no missionary

¹⁰ In 2006 Il Chamus lawyers sued the Kenyan government, arguing that introducing the invasive *prosopis* plant breached international human-rights and environmental laws. The lawyers won the case in 2007 and sparked celebration in the Il Chamus community. However, soon it became clear that the court order to eradicate *prosopis* from the area would be costly, and it was never seriously considered or implemented by the Kenyan government (Little 2019, Odhiambo 2015).

attention until the 1960s, except for the African Inland Mission (AIM), which intervened mostly in the Tugen Hills and in Eldama Ravine south of Lake Baringo. In the 1960s, the St. Patrick Society for the Foreign Missions, an Irish branch of the Catholic Holy Ghost order,¹¹ founded a mission station at Marigat, which was taken over in 1982 by the Franciscan Missionaries of St. Joseph, a women's congregation.¹² AIM missionaries also established a presence in Kiserian in the early 1960s.¹³

Facilitated by rapid state investment in formal education, as a by-product of President Arap Moi's favouritist policy toward the area in the 1980s and 1990s, many Il Chamus families have integrated school education of select children into their livelihood-diversification strategies, as demonstrated by a sharp increase in school enrolment and attendance between the 1980s and 2000s (Little *et al.* 2009: 155, 157).¹⁴ But enrolment rates for boys and girls remain highly uneven, as do the numbers of completed degrees (see Archambault 2011). Progress in female enrolment has been made mostly at the primary-school level. Girls' post-primary-school drop-out numbers remain high because of early marriage and limited prospects of female salaried employment. Female school attendance appears to facilitate early pregnancies and a broader shift from conventional marriage to cohabitation. Also, prevalent virilocal residential patterns make it so that many parents feel that investing in their daughters' school education will not benefit them to the same degree as it will their in-laws (Little *et al.* 2009: 157f). This tendency has been reinforced, rather than attenuated, by the shrinking of the public sector since the late 1980s, which has rendered the prospect of employment in the sector more and more uncertain. Still, Little *et al.* (2009: 160–2) state a significantly higher reliance on education-based salaried employment and trading as a risk management strategy and buffer against a loss of cattle through droughts and raids, to generate livelihood security beyond the pastoral circuit.

What emerges from this multi-layered, *longue durée* history of Il Chamus society in the Baringo region is the picture of a complexly stratified, rural society whose conceptions of the future and future-making strategies are not

¹¹ The order is also called 'Kiltegan Fathers', after its headquarters in Kiltegan, County Wicklow, Ireland.

¹² David Anderson reports that during his archival work at the AIM archives (Billy Graham Center) in Wheaton, Illinois, he came across a few diaries from the early 1900s that related to missionary activity in Eldama Ravine and Laikipia but did not specifically mention the Il Chamus (David Anderson, email communication, January 2020).

¹³ Handwritten historical record kept by P.Sikamoi, Kiserian.

¹⁴ According to Little *et al.* (2009: 156–157), by 1999 about 10 per cent of the total Il Chamus population worked or attended school outside the district.

uniform, but need to be explored through a focus on specific segments of rural society. We will do this below by looking at those groups for whom the option of constructing a future for themselves and their own families by converting to Christianity arose due to their proximity to the Christian mission in Kiserian.

Kiserian: a church infrastructure of future-making

Kiserian, also known as Loiminange (Little 1992: 15), and not to be confused with the larger Kiserian town in Kajiado county, lies on the southeastern shores of Lake Baringo, at about 25 km east of Marigat town, a market centre located about 270 km north of Nairobi.¹⁵ Presently inhabited by Il Chamus, it is close to the grazing lands east of Lake Baringo, which were at different times in history claimed by Il Chamus and neighbouring Pokot groups for their cattle. Over the last fifteen years, Il Chamus families in the zone east of the lake have been exposed to recurrent raids by groups of Pokot, which has made the area unsafe to inhabit. Because of its proximity, Kiserian has become a refuge for families fleeing from insecurity in the zone east of Lake Baringo, mostly from Rugus and Mukutani.

Under current conditions of relative precarity, several Christian Protestant denominations in Kiserian offer much-needed opportunities to make a future. Apart from the ubiquitous infrastructure of the African Inland Church (AIC), the Dominion Church, King's Outreach Holiness and Prosperity, and African Gospel Church (AGC) offer spaces for socializing and mutual support. The AIC mission, perched on top of a hill on the shore of Lake Baringo and run by Kenyan pastors, draws on a solid infrastructure to grant material improvement and physical well-being to residents of the area, and to offer Il Chamus displaced families a new place to live.¹⁶ The infrastructure comprises a cement church building, a health dispensary, a maternity ward, and dormitories for visitors, all built on the site of the Loiminange colonial administrative post; and a secondary school with dormitories, built near the Kiserian commercial centre, which consists of a few small shops. AIC dormitories and church structures served as shelter for displaced families that also received financial and logistical support to build new homesteads

¹⁵ In 1900, the British colonial administration established their administrative post in Loiminange (today known as Kiserian), until around 1910, when they moved their post to Mukutani to improve security and policing for this volatile area (Anderson 1989: 252–4).

¹⁶ Since 2005, many Il Chamus families have been displaced due to conflicts with neighbouring Pokot pastoralists. Armed attacks by Pokot young men in border areas east of Lake Baringo have caused Il Chamus families to flee and resettle in Kiserian and further south (Greiner 2013; Little 2019).

in the area. Reception of this aid, health care or enrolment at the missionary school are not made dependent on conversion to Christianity. Still, the support offered by the AIC mission draws recipients into the orbit of the church, which is mirrored in the recognition and respect the AIC personnel enjoy in the wider population. To the residents of the area around Kiserian, healthcare and education opportunities provided by the AIC are existential; people travel long distances to reach the maternity ward, consult with AIC-hired health professionals, and get medical supplies. Since 1990, the Secondary School and dormitories, built at the initiative of the South African missionaries Lorna Eglin and Betty Allcock, with support of the Office of President Arap Moi (himself a devout AIC member), has spurred secondary-level school enrolment of boys and girls.¹⁷

Activities of the AIC pastors and catechists include preaching in Sunday church services, travelling long distances to evangelize, and organizing annual or biannual events for youth, such as ‘church camps’ and circumcision ceremonies offered as an alternative to traditional ceremonies so that youth could become recognized as full-fledged members of adult society.

To dedicated church members, many of them women, the AIC mission also promises stable employment and positions of respect within the broader community, promises that are directly related to school education. Because secondary education allows students to obtain employment by the state administration or another salaried appointment, these promises are particularly important for girls and women. The AIC mission also offers a modest but steady salary to catechists, teachers, and healthcare personnel.

The AIC mission thus attracts people to Christianity not through aggressive evangelizing, but by offering a future of greater material security, prosperity, ‘growth’ and well-being to believers, their families, and the wider community.

Narrating conversion

If conversion to Christianity involves, as Peter van der Veer has argued, a ‘conversion to modernities’, what does this modernity look like in the Baringo area, an area of forestalled opportunities for ‘development’, and of broken hopes of partaking in a global modernity and getting one’s share of national wealth? Also, given the fact that missionary Christianity in Kiserian is the main provider of an infrastructure of future-making in Kiserian, what visions and expectations do those Il Chamus who are employed by the AIC mission or otherwise identify as dedicated Christians formulate? To understand their

¹⁷ Its forerunner was the Loiminange Primary School, opened in 1963 by African Inland missionaries.

'futural orientations' (Bryant and Knight 2019), we will examine how Il Chamus Christians in Kiserian recount their personal histories of converting to Christianity. Most accounts were elicited during interviews, which means that their narrative structure was shaped by the interaction between researcher and interlocutor. Yet the particular framing of the accounts also hints at how dedicated Christians convey their views to others in the locality. The conversion accounts refer mostly to processes of 'primary' conversion (Gilliland 1991, Droz 2005); that is, their shift in orientation from what they call 'culture' to Christianity. 'Secondary' conversion – that is, a reorientation toward a stricter interpretation of Christian scriptures and behavioural norms that demands another rupture with the demands of one's immediate social environment – plays a minimal role in the Baringo area (see Schulz 2008).¹⁸

Our exploration of Il Chamus Christians' accounts starts from a view of conversion as a conscious act of changing one's view of how divine power or other hidden spiritual entities affect one's personal life and the world at large; a change in perspective that actors themselves identify as a significant reorientation (Jules-Rosette 1976, Scharrer 2010: 99). It is a genuinely social process because it involves recognition by others.

We understand our interlocutors' retrospective constructions of their turn to Christianity as pertaining to a spectrum of discursive acts by which Il Chamus Christians claim proper religiosity (Harding 1995), make sense of their life situation, and express their aspirations and hopes for a better future. In line with the 'linguistic turn' in social-science scholarship on conversion since the 1990s, we stress the constructed nature of conversion accounts (e.g. Knoblauch 1995, Knoblauch *et al.* 1998); they are not sources of objective information on, for instance, motivations for religious reorientation and change in affiliation. Whether elicited during interviews or recounted in casual conversations, conversion accounts follow socially embedded, culturally specific conventions of narration that shed light on particular understandings of personhood, personal agency, and 'capacities to aspire' (Appadurai 2013). As autobiographic narratives, conversion accounts mirror broadly shared understandings of sociability and individual agency, and mediate between individual experience and broader social expectations (e.g. Snow and Machalek 1984, Sprondel 1985, Staples and Mauss 1987).

¹⁸ Whereas several authors have identified the notion of 'being saved' or 'a saved one' to apply only to the second type of conversion (very often, to those who joined a Pentecostal or Evangelical church), we found that Il Chamus Christians employed this term to refer to both conversion processes.

Constructing the aspiring self: introspection and independent judgement

Studies of missionary Christianity, in Africa and elsewhere, have shown that conversion to Christianity implied a novel understanding of personhood (e.g. Comaroff and Comaroff 1992, 1997, van der Veer 1996, Robbins 2004). As Keane argues with regard to Dutch Reformed missionaries' endeavours in Sumba, Indonesia, the new construction of the self implied a notion of interiority and individual conscience, and replayed the modernist division of belief and action, of interior motivation and outward signs of it. Along with the new understanding of personhood, agency was located exclusively in God and, by extension, in individual believers (Keane 2007: ch.2).

What views of personal agency do Il Chamus Christians formulate in their autobiographic narratives, and what future aspirations do these understandings reveal? When narrating their personal histories of conversion, Il Chamus Christians in Kiserian often recounted that their 'finding (of) Jesus' stretched over several years, even decades. For some, the shift in orientation evolved through a back-and-forth movement between 'accepting Jesus' and 'backsliding into culture'; others described the process primarily as an inner struggle. Common to all accounts was that a life-threatening or miraculous event prompted the final, dramatic shift to Christianity. This turning point, modelled on the Paulinian conversion paradigm, was presented as a doubly life-saving transformation. One of the pastors at the Kiserian mission started his account of his turn to Christianity as follows:

I came into contact with Christianity in 1981, when the two missionary ladies came, Betty Allcock and Lorna Eglin. They had a Dutch background, they were from South Africa. I was then in primary school. They preached, and I was one of the students who accepted Jesus. I was baptized in 1983. There were around 28 people that were baptized. I had to struggle, because of the young men of my age-group, the *lmopoye*. They did not accept me to be a Christian and fail to attend their meetings. I remember they were trying to convince us not to go to church.

Later on, the pastor's story became more dramatic, identifying a singular conversion moment, a watershed event with dramaturgical elements that resonate with figures and scenes from the New Testament.

... before these ladies came ... a preacher came to this area ... I think it was early 1980. And I was a student at the same time as a fisherman. And he came to visit us when we were on the shore of the lake, doing fishing. I remember it was Saturday evening. A preacher just came and preached. And then after the preaching he told us, he talked about the

second coming of Christ, whereby he will come and separate people, those who have accepted God will go to Heaven, and those who did not will go to Hell. And then later he just called, an out call, that who wants to accept Christ. I just felt like I just have to step up and accept. But something, like a fight within me. Accept, or not ... I did not accept that day. But one day ... I went fishing inside the lake, and it was evening. I had this local boat. And then it happened to be so windy, inside the storm, on the lake. And it was like almost my boat was to throw me over into the lake. But that word of the preacher came to me. You have missed the opportunity. What will you do if you died now? Because, you had an opportunity, but you didn't take it seriously. So, like, I prayed. God gave me another chance. And you know I was on the lake, no one could save me, and the lake was very rough. I did not think I will come out of the lake. But I remember just praying 'God give me another chance, to leave'. So when these ladies came, I still had that ... I didn't go to any church again, I didn't have any contact with any preacher, until the ladies came. So I became one of them, those who accepted Christ ... That is why I later decided that ... I am a Christian, and I should be obedient to what the Bible says.

Conversion is presented as the outcome of a protracted struggle, between one's 'inner calling' and the external pressure not to convert. This narrative framing involves a particular spatio-temporality of conversion, as a gradual advance, a 'growth' toward Christianity.¹⁹ The same dramaturgy of conversion as a struggle of conscience informs the following, third-person account by a man in his late 30s who was baptized into the African Inland Church in 2007.

Deep down in his heart he felt that God was calling him. Like for example, when they were still going to war [with the Pokot], he could pray in the bushes when they were fighting. That was his little secret. He used to pray and he would just escape death. People were killed, but he could just escape every time that he would go to war. So, as much as he was not in church, he really loved the word of God. That is what motivated him.

... back then [in 2005–2007] he really used to love war and everything about it, and he remembers one day ... Ok, the bandits, Pokots, used to play around with Il Chamus, they used to steal so much from them. And then the very first time they got their cattle back before they were taken there, he was in that team. And the second time they also brought the cows back, he was there. So to him it was like miracle ...

¹⁹ Interviewees used the term *peebulu ltung'ai* to refer to their personal growth (literally, 'to grow as a person').

The temporal sequencing of the account starts with the narrator's responsiveness to God's 'calling', followed by the recognition of being 'already a Christian in his heart', and culminates in the public profession of faith by withdrawing from age-group ceremonies. The speaker uses *ltau*, the Maa term for heart, soul or spirit (Hodgson 2005: 210), to refer to the site of inner torment, where the tension plays out between his sense of being a Christian 'at heart' and the desire to continue to be counted as a respectable member of his age-group. Dorothy Hodgson (2005), in her study on Maasai Christians in the Catholic diocese of Arusha, Tanzania, describes the conventional Maasai conceptualization of *oltau* as the site of moral agency, maintaining that a 'person's *oltau* could influence their actions, forcing them to do things or go places they might not otherwise choose' (Hodgson 2005: 213). Although we could not soundly confirm this during our conversations with Il Chamus Christians, Hodgson's argument would imply that, pace Keane (2007), to view *ltau* as site of individual agency and conscience is not the result of a novel, Christian conception of interiority and personhood.

References to the wonders of faith and Divine power also pervaded other conversion accounts, presenting miracles as signs of God's superior truth that prompted a struggling self to become a 'saved one'. One interview partner, a woman in her late 30s, identified as the first turning point in her conversion history the miraculous escape of her 10-year-old boy from a Pokot raid, before reporting on her baby daughter's recovery from kidney cancer:

One thing that made her realize that diseases can be cancelled [through 'faith', *iman*] was (her) kid who was suffering from cancer ... she took the kid to one of the hospitals in Kitengele, in Nairobi. So the baby was scanned, and the doctors realized that the child contracted cancer, kidney cancer ... And people were saying cancer can't be treated. But for her, she didn't lose faith, she kept her faith. And then she told God, because you have given me three sons, and this is my only daughter, she is not going to die. You had a reason of giving me this daughter and she is not going to die ... she survived with that one kidney ... now she is in class 6 and she has everything.

Whereas the conversion accounts cited so far highlighted struggles of conscience, other narratives centred on the movement between 'church' and 'backsliding into culture', such as the following third-person account by a 43-year-old Christian:

... he started when he was a kid. He went to church until he was circumcised. And he said that parents made him go back to culture, during that circumcision period, so somehow he left church for a while. And then he went back there. Then after a while he left again, and he went now

(to church) in 2014, for good ... church wanted them to be circumcised the church way. But the parents wanted them to be circumcised traditionally, the culture way ... So he decided to respect the parents. So he was circumcised traditionally ... from there ... he started drinking ... He was in alcohol for five years, and then in 2013 ..he started now thinking of changing ... He was not in peace, he was neglecting his children. And then he was fighting with people for no good reason ... So after a while he started listening to the word of God, and then he saw that the church will protect him from doing all sorts of wrong things.

The biography evolves from youthful unsteadiness and a desire to 'respect' social norms to a self-assertive Christian subjectivity, characterized by introspection, independent judgment, and self-control. Other accounts also stressed self-control, suggesting an aspiration to belong to a community of enlightened Christians and, potentially, toward middle-class ideals of domesticity and marital partnership (see Ferguson 1999: ch.5). As one pastor of the AIC mission put it,

... [I became a saved one in 1992] ... so that I inherit the Kingdom of God. Faith. Because Jesus Christ is coming back again. What made me to get saved, I was taught, and I was taught of goodness, of being a Christian, and good values I can access as a Christian. For example ... I don't do drugs, I don't fight, I have that self-control ...

Here again, personal growth is associated with notions of enlightenment, introspection, and self-control. These aspirations are tied to an immediate, 'life-trajectory' future, such as gaining peace at home and 'respect' in the community, and expressed through a (sometimes explicit) contrast to the realm of 'culture'. We can interpret these dichotomous claims about 'Christianity' and 'culture' as modernist constructs insofar as they reveal Il Chamus Christians' self-understandings as modern subjects and as agents of their own future. This leaves us with the question of how Il Chamus conceive of 'culture'.

Christianity as future: constructing the religion/ culture dichotomy

Keane (2007), in his study of the Protestant missionary endeavour in Sumba, Indonesia, argues that it rested on a specifically modernist conception of Christianity *as* a religion, in contrast to the assumed 'culture' of peoples that, in the case of Sumba, materialized in practices of 'fetishism'. Keane's perspective helps us to understand how Il Chamus Christians speak about their Christian faith and how in doing so, they discursively position themselves within the broader Il Chamus society.

Il Chamus Christians describe themselves as those who ‘follow God’s word’ and belong to *kanisa*, which is the Swahili term for ‘church’. As we saw, they portray themselves as forward-looking Christians, who, in contrast to ‘those who do culture (*lkwaak*)’²⁰ are intent on personal growth (*peebulu ltung’ani*, from *abulu*, ‘growing’), and on advancing their families, particularly their children. While people use the Maa term *lkwaak* to refer to culture in a more general sense and in contrast to *kanisa*, church, they also employ two other terms that reference what they consider two main aspects of culture: *ntasim* (‘ceremony’) and *sikar*, which refers to attire traditionally worn by men and women in ceremonies, such as clothes and beads. Those Il Chamus who stress their continued attachment to ‘culture’ use the expression ‘those who like culture’, *lsikarani* (sing., male) and *kaisikarani* (sing., female), expressions that draw on the etymological root of *sikar*.²¹

When asked to define how they set themselves apart from ‘those who like culture’, Christians often singled out ‘ceremony’ (*ntasim*) as a main marker of difference. This resonates with Keane’s argument that Protestant missionaries employed ‘culture’ to denounce all kinds of practices and rituals they considered as antithetical to acceptable ‘religion’.

Il Chamus Christians narrated their histories as a journey, through spatiotemporal metaphors, such as ‘growing toward’ the church, ‘leaving culture behind’, and ‘backsliding into culture’. Their spatiotemporal mapping of ‘church’ and ‘culture’ enables a teleological narrative of moral advancement, which reiterates the earlier-mentioned Maa conceptualization of personal advancement as ‘growing’ (Maa, *abulu*). It is also used by Il Chamus who declare their persistent attachment to the ‘culture ways’. The neat mapping of ‘culture’ and ‘church’ does not exclude that in their actual practices, Il Chamus Christians blur the divide between the two realms. For instance, while Christian Il Chamus rhetorically contrasted ‘church’, as the path toward a better future, with *lkwaak*, as the realm of obligations and practices that impedes people’s ‘growing’, some of them maintained that becoming a proper Christian does not require a wholesale rejection of ‘culture’, but instead a capacity to discriminate between, on one side, admissible elements that Il Chamus need to retain for matters of self-worth and ethnic identity, and, on the other side, those ‘contradicting the Bible’, such as any engagement with the world of deceased family members and other invisible entities. The actual default line thus runs within the realm of *lkwaak*.

²⁰ Payne and Ole-Kotikash (2008) translate *l-kuaak* as behaviour, character, habit.

²¹ They, too, contrast *lkwaak* to *kanisa*.

Envisioning Christianity as the future

In their accounts, Il Chamus Christians in Kiserian singled out social isolation as the severest repercussion of their conversion, both within their immediate family and in the community at large. By talking at length about how they braced themselves against peer and family pressure, they presented themselves as people who grow in independent judgement and who are oriented toward a better tomorrow. They thus claimed a particular temporality, for Christianity as a path toward a promising future, and for themselves as those forward-looking pioneers willing to endorse it and to pave the way toward greater communal prosperity and well-being.

Il Chamus' discursive dichotomy of 'church' and 'culture' echoes conversion narratives in other African settings that portray conversion as a radical break with kin obligations and 'the past' (e.g. Meyer 1998). To understand the meanings Il Chamus Christians associate with 'culture', we take a closer look at Il Chamus Christians' reconstructions of the social sanctions they faced. In a second step, we will explore how Il Chamus Christians construct 'culture' as the realm and temporality from which they seek to distance themselves.

For Christian men, the threat of social isolation was tied mostly to their withdrawal from age-group ceremonies, a decision they justified with reference to specific ritual details, such as slaughtering animals by suffocation. Older Il Chamus Christians recalled that in their youth, the most formidable social sanction was to curse a man, a step taken mostly by elders and age-group peers. The threat of cursing was exacerbated by parental pressure to conform to kin and age-group obligations and norms. One of the pastors at the Kiserian mission recalled:

My age-group one time approached me and my parents telling them .. that we should not be part of the church, but rather come back to our age-group. I resisted .. (One) Saturday, when we were coming out from the Bible study, my age-group came, and cursed me with two of my friends ... (This) curse (*ldeket*), it is like wishing you to die ... to go how the sun is going down, that manner of words. But, then, when I came home, when my parents heard that I was cursed, they told me to go away from home. Because you could not any longer, you know, they believe ... that when you are cursed then you will die. So I went ... That was '85 ... I was still a child. I was still under 18 ... a teen ... I went to that area of Marigat, to find a place to stay, and then to look for a kind of a job, and I went to someone ... he hired me to look for his goats and ... paid me something like 150 shillings per month. So, I stayed like for 4 months, and then I came back ... And then, my parents, I talked with them, that I have decided to be a Christian, and I will not do some of the things which does not go along with the Bible ... They accepted me back ...

The speaker's exclusion from his age-group was aggravated by his temporary expulsion from his family. His parents' resistance faltered only when the efficacy of the curse became questionable. The point was reiterated by one of the pastor's age-mates who talked about his participation in the alternative circumcision ceremonies organized by the church:

... when we were circumcised here, the age-set of my father, converged in one place ... (and) cursed the boys who have been circumcised in the church. But since then, we don't believe [in the power of curses] ... We are the pioneers in the community who have been circumcised in the church. Those days, the church youth were circumcised in far away places, like Ravine, like Kabarnet .. (because) that way of circumcision was not accepted by the community. And there were few ... during our time ...1994 ... So we experienced the same difficulties, because we are changing the culture, which people don't want.

The argument that the powers of faith supersede the efficacy of practices that pertain to the realm of culture reappeared in other accounts of early converts:

[members of my age-group] cursed me the second time. But I didn't believe that ... curse can do anything to me. And for all those years people have waited for me to die, all those years. And I think that proves that people around are no longer fearing curse, especially if you have not done anything ... (cursing) is no longer working today.

The above accounts attribute distinct temporalities to Christianity and to 'culture'. By claiming that the efficacy of curses is something of the past, whereas those who adopt the Christian faith become 'pioneers of the community' and 'change the culture', these Christians present themselves as drivers of moral and material advancement.

For men to refuse participation in transition ceremonies deemed essential to age-group sociability meant to no longer fully belong to their age-group. In the eyes of their age-mates, Christian men's withdrawal from certain age-group-related rituals disrupted networks of sociability and, notably, of material support. Peer responses varied from prodding and entreaties to social isolation, depending on the convert's social standing. As an older man associated with the AIC mission explained,

... at first, they were ok with it ... later on, they were ... trying to bring ... (me) back ... I told them, that I will not join you, but ... in other things we will be together, like when somebody is getting married, I

will just chip in with my contribution. But other things we will not be together. And that is how they agreed...

In this instance, the pragmatic solution of continued material support made up for his withdrawal from ceremonies. Other Christian men confirmed that peer responses depended significantly on whether a man was respected by his peers and bowed to norms of reciprocity by supporting group activities materially. Male peer disapprobation tended to falter over time, when Christians proved their persistent sociability through material contributions.

What about the challenges faced by Il Chamus women in 'joining the church'? Male and female Christians portrayed the risk of social isolation to be lower for women than for men, which they explained by a greater affinity between women's 'traditional worship' practices and their 'singing' in church. This points to a conception of female religious agency that lends itself to easier 'translation' into Christian religious practices (see Hodgson 2005: ch.1). Given that many Il Chamus agree on women's greater susceptibility to 'worship' and 'the church ways', their church attendance is considered less reprehensible in the eyes of peers and family. Yet even if the hurdle to 'join the church' is lower for women, they, too, face social sanctions. As an unmarried, educated woman in her early twenties put it, referring to the circumcision of girls, a practice that observant Christians usually denounce:

The problem is stigma ... if there are some ceremonies your husband will go, but you will be left out because you are not circumcised ... you will just be chased away from there ... So sometimes people will [be] circumcise[d] to avoid that, or they would go completely to church and stay there, avoid the culture.

Overall, women tended to give a less antagonistic portrayal of the social pressure they faced. Instead, they often highlighted that their turn to Christianity offered them opportunities of personal growth and of breaking with norms and practices that held women back in a position of subjection to the directives of 'elders' and 'culture'. Also prominent were references to the opportunity to access education through the 'church', and to portray it as the crucial step toward improving family life and communal well-being.

Women's downplaying of conflicts surrounding their turn to Christianity could reflect culturally specific expectations about proper female behaviour as being more conciliatory and peaceful. But first and foremost, their portrayal of Christianity as the realm of future opportunities strongly aligns with Hodgson's argument about the thoroughly gender-specific promises tied to Christianity for those Maasai that joined the Catholic mission in Tanzania (2005: ch.4,5). Hodgson shows in great detail that women found in Christianity

new opportunities for personal advancement and for gaining respectability in the community, which, among other factors, explains the disproportionate rate of female conversion. Women also found in church-related activities and structures new opportunities for socializing and for gaining support for their personal aspirations. Future research in the Baringo area should specify how the gender-specific promises offered by a Christian infrastructure of material improvement are taken up and translated by Christian women and men into their daily struggles and aspirations toward a better future.

Conclusion

The chapter explored how Il Chamus Christians at the Kiserian mission in the Baringo area, who belong to a predominantly rural Il Chamus society, understand and frame their personal biographies as Christians. A key concern was to understand what futural orientations our Christian interlocutors associated with their conversion to Christianity. For Il Chamus to adopt a Christian 'faith' means to envisage new notions of futurity, notions that rest on spatiotemporal metaphors of 'advancement', of moral refinement, and communal progress. While scripture-based Christianity hints at the future in two separate modalities, an immediate future in the here-and-now and one relating to the afterlife and eternal salvation, Il Chamus Christians highlight the importance of immediate material and physical improvement, thus echoing concerns articulated by Christians elsewhere in Africa (e.g. Luig 1997, Engelke 2004).

As a key structuring principle of their conversion accounts, Il Chamus Christians posit a clear divide between 'church' and 'culture', describing their personal biographies as a gradual move and 'growth' toward 'the church'. Il Chamus Christians' 'moral narrative of modernity' (Keane 2007) depends on a discursive rejection of 'culture'. 'Culture' as the realm of backwardness becomes the contrast foil to express a particular 'futural orientation': the aspiration to achieve personal moral and material advancement and family and communal well-being. At the same time, Il Chamus Christians constantly negotiate their relationship with 'culture': while distancing themselves from certain practices, they seek to maintain other elements. In a political setting shaped by politicized ethnic identities, in which Il Chamus claim political representation as a marginalized ethnic minority, Il Chamus Christians' futural orientations emerge through a constant tension between the discursive rejection of 'culture' and the struggle to claim ethnic specificity and belonging. Their highly ambivalent positioning toward the realm of 'culture', as the realm of backwardness but also as the source of an authentic ethnic identity and of future political rights as a minority appears as a characteristic element of the specific futural orientation articulated by this segment of a rural society.

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The Politics of Anticipation in East Africa's Rangelands¹

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Introduction

Droughts, floods, locust plagues, and epidemic diseases have all affected pastoralists in East Africa's rangelands in the past few years. How can such uncertain events, each with major consequences for pastoral livelihoods, be confronted? How are contrasting futures anticipated? What different assumptions, techniques, and practices are deployed to respond to such uncertainties?

This chapter explores the politics of anticipation – where uncertain futures are framed and negotiated through a range of technical and political practices – in pastoral areas of southern Ethiopia and northern Kenya. Two contrasting approaches to addressing uncertain futures are explored, each with very different politics associated with them. The first is a liberal, individual, market-based approach, which relies on scientific prediction forecasting, early warning,

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early action responses, and insurance to offset defined risks. This sees futures as controllable, predictable, and calculable through technical intervention (Scoones 2019, 2024). This perspective is associated with the management of risk, whereby futures are assumed to be predictable and outcomes controllable (Stirling 2010). Associated with a neoliberal framing of risk, futures can in turn be marketized and risk financialized through such instruments as insurance, in turn creating new forms of controlling biopolitics (Lentzos and Rose 2009, Dillon 2007, Giddens 1999). The second is a more collective, redistributive approach, rooted in networks and relationships, and drawing on local knowledges and experiences of volatility and variability (cf. Krause and Harris 2021, Krätli 2019). Such a view sees futures linked to current practices, embedded in social relations and not simply controllable through external means (Anderson 2010). This approach takes uncertainty seriously – where futures are indeterminate and outcomes are unknown – and relies on living with and from variability in a turbulent world. This perspective in turn suggests a more ‘caring’, less controlling politics (Scoones and Stirling 2020). While not mutually exclusive, these two perspectives do highlight very different understandings of risk and uncertainty and so a different politics of anticipation. This, we argue, has major consequences for the way development support, including via insurance systems, is viewed.

The next section outlines what we mean by the politics of anticipation more generally, identifying some of the key dimensions from the wider literature. The following section explores the deployment of index-based livestock insurance in pastoral areas, examining how insurance contributes to a particular style of ‘future-making’ in the rangelands. This is followed by a discussion of more vernacular styles of protection, rooted in local moral economies. Different types of future and forms of anticipation and response are revealed. The conclusion turns to a discussion of the implications of these contrasting approaches, and how different politics of anticipation – embedded in contrasting assumptions, techniques, practices and power relations – suggest quite different futures and development pathways for pastoral areas.

Confronting uncertainties: the politics of anticipation

With the decline of state-supported social safety nets and the weakening of local mechanisms of livelihood support in times of crisis, there has been a growing interest in insurance as a route to social protection, particularly in settings where the risks of catastrophic disaster are high (Baker and Simon 2010). Insurance is thus seen as a way to incorporate future-making in a capitalist economy through the financialization of risk and uncertainty (Clapp and Isakson 2018).

The emergence of insurance has a long history co-constructed with a changing politics of markets, states, and communities (Ewald 1991, 2020, Scoones 2024). As a commercial, market-based instrument based on an assessment of defined risks affecting individuals or specified groups into the future, insurance approaches – whether actuarial indemnity-based or parametric index-based² – appear to offer a neat solution for risk governance at a distance, with limited direct state involvement (Greatrex *et al.* 2015, Mobarak and Rosenzweig 2013). The technical design features, such as actuarial population statistics or index-assessment using satellite imagery (of crop failure or rangeland condition, for example), and the associated predictive models offer a sense of technocratic rigour, allowing prediction and managerial control.

In the context of neoliberal development policies, marketized, individualised practices are encouraged over state-led policies; here the accountabilities lie in the contract relationship and the insurance market, and trust is engendered through the technocratic design of the system. New relationships are generated between particular subjects (the insured) and defined objects (hazards), creating identities around those who are insured and those who are not (O'Malley 1996, Johnson 2013, Elliot 2021). With insurance, the politics of anticipation is therefore centred on calculable risk and an individualised marketized system, generating an imaginary of a controlled, managed, modern, and open-ended future, where catastrophes are insured against and modernising progress ensues, while the insurer can generate a profit from the process. Governmentalities are exerted through the actuarial logics of liabilities, risk indices, and indemnities (O'Malley 1996, cf. Foucault 2008), while anticipation allows for intervention to prevent disasters through pre-emptive anticipatory action, precautionary policy, and preparedness and contingency planning (Anderson 2010, Lakoff 2010), sometimes in the context of an 'emergency' (Collier & Lakoff 2015).

Of course, embedded in the neat designs and technocratic practices are multiple assumptions, generating huge uncertainties. Despite improved models of climate dynamics at the broadest scale, downscaled estimates are always uncertain (Ericksen *et al.* 2013). And the mismatch between assessment of an index and the actual experienced conditions on the ground may be large depending on the quality of the insurance contract design (Johnson 2013, Johnson *et al.* 2023, Reeves 2017). In the commercial design of insurance

² Classic indemnity-based insurance pays out according to actual losses, with premiums calculated through actuarial assessments of the probabilities of such losses occurring. Index-based, parametric insurance pays out when an index, which is judged to correlate with expected losses, passes a certain threshold, irrespective of what actual losses are.

systems, risks and costs are taken on by the insured populations, creating skewed accountabilities and responsibilities in an uneven power dynamic governed by a profit-making imperative. Contests over contract terms, disputes about model outcomes and different opinions about appropriate premiums invariably emerge. Struggles over negotiated futures are inevitable, given the uncertainties emerging: not only from the nature of the insurance mechanism but also from intersecting uncertainties – even complete surprises – that people regularly face.

Insurance approaches, defined by a liberal, long-term view of anticipated futures and a framing around risk (where probabilities of future events are known or can be predicted), can however hide alternative, less visible perspectives, more accepting of uncertainty (where futures cannot be predicted) or ignorance (where we don't know what we don't know) (Stirling 2010, Scoones and Stirling 2020, Scoones 2024). In confronting uncertainty and ignorance, practised adaptive responses are required, linked to a networked sharing of knowledge and learning from experience; processes that are more grounded in incremental, locally driven, and collective approaches. No single plan is possible, but multiple options must be explored. Failure is expected and redundancy in design is often required, in case one part of the system fails. Reliability in the face of uncertain events therefore must emerge from tracking between the scanning of wider horizons and real-time responses on the ground (cf. Roe and Schulman 2008).

Local, culturally-embedded forms of moral economy – where uncertainties are addressed collectively, allowing the redistribution of risks and benefits – are informed by a different set of logics to insurance. Logics of subsistence, care, mutuality, and solidarity are observed, for example, and these in turn are co-constructed with a particular politics (Scott 1977, Edelman 2012). In more collective responses to risk and uncertainty, accountabilities are more horizontal and trust is built through social relationships. Such local redistributive moral economy responses are inevitably influenced by class, gender, age, ethnicity, and other forms of social difference, even as they deploy narratives of inclusion and equity. Understandings of possible futures and their anticipation, in turn, may be influenced by local standing, types of education, religious and cultural beliefs, and the influence of social networks beyond the locality.

In sum, the politics of anticipation depends on the framing of the challenge (between defined risks or broader, intersecting uncertainties, even ignorance); the techniques and practices involved (between actuarial statistics, index assessment and models, and more contingent social knowledges and learning); the accountability relationships that exist (between being reliant on an insurance contract and on horizontal social relationships) and the imaginaries of the future that are so co-constructed (between a singular, individual,

marketized, controlled vision of ‘modernizing’ progress and a more collective, mutualist, caring vision of multiple alternatives).

In the next two sections we explore the experiences of responding to risk and uncertainty among pastoralists in southern Ethiopia (Borana) and northern Kenya (Isiolo), contrasting approaches to index-based livestock insurance and wider collective responses rooted in local moral economies, with the aim of drawing out the contrasting politics of anticipation in each case and their implications.

Governing through the market and state: livestock insurance

Index-based livestock insurance has become a favoured intervention in both Ethiopia and Kenya (Map 11.1), as well as more widely in the region. Promoted by national governments, NGOs, research organisations and large donors, it is seen as a simple, cost-effective approach to addressing drought risks.³ Given the effects of drought on pastoral wealth dynamics (Fratkin 2001, Lybbert *et al.* 2004, McPeak *et al.* 2011), and in the face of accelerating climate change, offsetting the impacts of drought is important in sustaining pastoral livelihoods, reducing poverty, and decreasing the costs of massive drought relief and food aid responses, so low-cost index insurance offers an important solution, it is argued (Chantararat *et al.* 2017, Noritomo and Takahashi 2020).

As an alternative to standard indemnity-based insurance founded on assessments based on the statistical probabilities of loss from past experience, index-based parametric insurance is a stream-lined option whereby policyholders are compensated when an index related to expected losses falls below an agreed threshold. In this case, the index is a decline in forage levels that are expected to result in livestock mortalities (Taye *et al.* 2019, Chantararat *et al.* 2013, Mude *et al.* 2012). This can be assessed remotely by employing satellite imagery of grasslands and assessments are made during rainy periods through the Normalised Difference Vegetation Index (NDVI). When the predicted forage level in a particular index area goes below a certain level, pay-outs are triggered. The paying of insurance cash is, in turn, expected to result in pastoralists selling their animals and reducing pressure on the rangelands,

³ The US\$432.5 million World Bank DRIVE project (De-risking, inclusion, and value enhancement of pastoral economies in the Horn of Africa) operating in Kenya, Djibouti, Somalia, and Ethiopia is premised on the same assumptions as the cases discussed here, with the same limitations and a failure to learn lessons from earlier experiences. See, <https://projects.worldbank.org/en/projects-operations/project-detail/P176517>; <https://www.worldbank.org/en/news/video/2023/05/31/horn-of-africa-afe-drive-project> and <https://www.financialprotectionforum.org/news/16-million-pastoralists-in-the-horn-of-africa-to-benefit-from-a-regional-scheme-to-protect-0>.



Map 11.1. Insurance area unit boundaries in southern Ethiopia and northern Kenya [Cartography: J. Hall].

later being able to repurchase animals once the drought has passed. Levels of pay-out are geared to expected frequency and severity of drought according to climate models, and the level of subscription to the insurance scheme (Zewdie *et al.* 2020, Johnson *et al.*, 2019).

The model for index-based insurance systems is settled agriculture where fixed fields and pay-outs related to particular crops are more easily administered. Even here questions have been raised as to whether such insurance approaches crowd out local drought responses (Carter *et al.* 2017), although others claim this does not happen in livestock insurance systems, even if uptake remains low (Takahashi *et al.* 2019, 2014). Index-based livestock approaches have been promoted in Ethiopia as a private, commercial operation underwritten by Oromia Insurance SC and in Kenya as a state-funded social protection approach by the Kenyan government under the Hunger Safety Net Programme and also as a voluntary product for those who can afford it. Both programmes are supported technically by the International Livestock Research Institute (ILRI) and other development agencies.

Each insurance system has its particularities, but the principles are the same – an index-linked asset protection insurance product. In both settings, there are however questions about coverage, accuracy and leakage, notably where registrations in the Kenyan system can be abused⁴. During the piloting phases of the subsidised scheme in Kenya, contradictory targeting of beneficiaries occurred. Despite the claim to support the most vulnerable pastoralists, a minimum of five cattle is required to be accepted into the programme. There are also questions raised as to whether a spatially distinct assessment of drought risk is appropriate given the high levels of mobility of pastoral populations in a drought period. Mobility in the pastoral system is highly dependent on the availability of resources (pasture and water) during seasonal droughts and technologies like index insurance are required to capture such patterns to minimise the unintended impact on policyholders.

In both cases, it is the insured that hold the ‘basis risk’, the difference between the measures from the models and the actual conditions on the ground. This can be quite large, as actual losses are not directly assessed (Johnson 2020, Johnson *et al.* 2023). The functioning of the system relies on trust between those insured and paying premiums and those insuring and offering pay-outs based on models with often quite major assumptions. Beyond the technical efficacy of the system (e.g. Jensen *et al.* 2019), wider questions are raised about how uncertain futures are co-constructed with politics through such an individualised market-based mechanism, and who wins and who loses.

⁴ <https://rethink.earth/how-kenyas-herders-got-their-livestock-insured/>

For the originators of the system, the financialization of risk through insurance provides an arm's length approach to responding to disasters, and providing protection for livestock keepers. Governing risk through the market creates new forms of politics and accountabilities, however. Market subjects are formed, linked to a complex apparatus through insurance forms and commitments through payment of premiums. The pay-outs are dependent on a remote system of satellite monitoring and modelling, requiring trust in those involved. When pay-outs do not occur because the NDVI did not drop below a threshold, then concerns are raised by pastoralists who may have experienced drought conditions. Very often concessions are made in order to ensure that those who adopt the insurance remain enlisted. Others drop out as they become dismayed at the results. Still others never take up insurance as they do not trust the system and prefer to use other mechanisms to offset risks. In other words, different people get enlisted in a financialised, market system for different reasons. For the commercial brokers, profit can be made from risk through selling insurance; for the state and development agencies the market resolves the challenges of delivery of social protection; and for pastoralists, insurance potentially allows the opportunity to extricate oneself from complex social negotiations around risk and uncertainty, operating independently as a market actor.

In Borana, Ethiopia, for example, GG, a 30 year-old pastoralist, who had in May 2020 adopted the insurance product commented on his rationale:

When I insure my livestock, I can focus on crop production. I will increase the land I dedicate to crop from pasture. This is because if I harvest more, I will have more crop residues for my livestock. But in case a drought happens, I can sustain my livestock as I will get cash as a form of payout. Hence, when I invest on livestock insurance, I will focus on other livelihood strategies. Besides, the cost of drought is much higher than the money I spend on livestock insurance.

However, livestock insurance is not for everyone, as market relations at the centre of insurance systems must be sustained by trust. Another informant who initially purchased insurance and then decided to abandon it, observed:

During my second-year investment in livestock insurance, there was a payout (2019) and I received some cash for the 10 cattle I insured. It was very small. The drought was so severe that we were forced to migrate to an area where there was better pasture. I was surprised and disappointed due to the fact that policyholders in the area I migrated to were paid higher than us. I lost the trust I had in the system. (DG, Borana, aged 56, May 2020).

Only certain pastoralists therefore take up the insurance offered and become ‘market subjects’ in a financialised system. Data show how it is those with larger herds (usually older men), and those who have a more diversified livelihood portfolio, and so can spread risks across livestock production, agriculture and trading, who adopt the insurance. Larger herd owners may take out insurance only for a proportion of the herd or flock, focusing on the more vulnerable animals (cattle rather than goats) and those whose loss would be most catastrophic (female breeding animals). One pastoralist explained:

There is no single strategy that can be regarded as a panacea to pastoralists. Insurance is no different. Hence, I cannot invest everything on insurance despite that I believe in its importance. It is only for those animals that remain in the main camp (Waraa) I purchase livestock insurance for. (DH, Borana, aged 64, May 2020).

Insurance coverage is therefore uneven, varying by wealth, gender, age, and location (Fisher *et al.* 2019, Matsuda *et al.* 2019, Bageant and Barrett 2017) and is usually seen as part of a wider set of responses to risk and uncertainty. Incorporation into a financialised system is therefore only partial and highly dependent on context.

As already noted, the commercial purchase of insurance is currently dominated by older, male, wealthy pastoralists. However, according to sales data from Oromia Insurance SC (2020) in Ethiopia, an increasing number of women are purchasing insurance, relating to their special rights over valuable lactating animals (Bageant and Barrett 2017). Meanwhile, richer men are increasing both the number of animals insured and the type, shifting from smaller to larger, high-value animals. Furthermore, areas that are characterised by high sales of insurance are frequently areas where there is a high prevalence of crop production, and insurance is seen a mechanism for diversification. By contrast, in those areas where extensive pastoralism dominates, insurance is directed to the protection of high-value animals in larger herds.

Thus, in the privatised system in Ethiopia, livestock insurance does not provide universal protection, and is largely focused on the already asset-rich or those with alternative options to spread risk. Financialising risk in this way potentially increases inequality as only certain groups are favoured, while others must make use of other forms of risk management. Insurance thus creates a particular local politics, allowing some to offset the risks of drought and so accumulate across diverse livelihood portfolios. This in turn results in an accentuation of difference within local communities, thereby pulling wealthier pastoralists away from local solidarity networks (Taye 2023, Johnson *et al.* 2023).

By contrast, in Kenya, with a government-subsidised system under the Kenya Livestock Insurance Programme (KLIP), there are different dynamics at play. Here the state pays the premium and everyone is effectively enlisted. Pay-outs therefore are supposed to be universal, although discrepancies arise when some get registered and others do not. Indeed, it is less engagement with an individualised market system as in Ethiopia, but more connections via patronage and other linkages that allow pay-outs to be received. The phone numbers registered in the scheme include many who are based in towns or in other parts of the country and may have little connection to pastoral areas affected (Johnson *et al.* 2019).⁵ Bureaucratic failures in registration combined with corruption result again in a differentiated response (Janzen *et al.* 2016, Johnson *et al.* 2019, 2023). From the onset, KLIP was explicitly political, with the two major contending political parties in Kenya promising insurance for pastoralists during their election campaigns (Johnson *et al.* 2019). Those able to do so cash in on the opportunities offered by the state protection scheme, while others are excluded; again, as in the market-based system, very often poorer women and young people. One pastoralist from Isiolo in Kenya complained about the scheme:

This insurance is given to those who have not tasted the difficulty and the bitterness of herding in drought. In those difficult times, we leave our children and move to search for pasture and nobody follows us to the bush, it's only people in town who benefit. Town folk connected to the authorities get access to money and some use it to buy cars. We know them and it pains us. (HB, Kinna, September 2019).

The financialization of risk through insurance – delivered through the market or by the state – focuses on individuals subject to specified hazards, in this case drought. Broader uncertainties, including situations where risks interact (such as floods, a locust invasion, and a human pandemic), are excluded. The focus is on a singular, identifiable, and measurable risk (linked in this case to a generalizable index) where the future can be priced and managed. This excludes broader engagement with uncertainties, where the future is unknown and unmeasurable. As one pastoralist from Merti, Isiolo explained, multiple uncertainties impinge on herding practices:

This land is vast and the resources are ample, we are not afraid of the drought because we can make use of patchy vegetation. However, shortage of labour to handle the livestock in the dry season makes life

⁵ <https://www.rapidtransition.org/stories/tackling-drought-in-kenya-livestock-insurance-policy-to-help-pastoralists-beat-climate-change/>

difficult. We are especially affected by insecurity, so our movement is restricted because of this fear, and we end up exploiting the same place all year round. (IH, Merti, September 2019).

The individualised risk-focused approach to insurance generates a local political economy with some included and others excluded. A focus on individual risks and benefits through insurance means that more collective ways of sharing risk and redistributing benefits are less visible and less promoted. The consequence is that insurance can act to accentuate already-existing differences in a pastoral setting, with consequences for gender, economic class and age-based differentiation, resulting in selective accumulation by some.

Vernacular protections: moral economy and local responses

What then do people do in the absence of insurance? What are the local, vernacular forms of protection that are used? The literature on pastoralism in Borana areas of both Ethiopia (McPeak *et al.* 2011, Desta and Coppock 2004, Coppock *et al.* 2011, Anbacha and Kjosavik 2018, Taye 2023) and Kenya (Dahl 1979, Swift 1991, Hogg 1985, 1993, Watson 2003, Doss *et al.* 2008, Khalif and Oba 2018, Mohamed 2023) is replete with examples of long-standing, culturally-rooted responses to risk and uncertainty, something seen across the pastoral world (Scoones 2023a).

For example, the tradition of stock sharing provides a mechanism of spreading risk (as well as herding labour) for limited payment (sometimes a heifer). Equally, redistributive approaches such as *dabare* (a stock loan and transfer of right to use, sell and own all the male produce while keeping the heifer for the owner) and *amesa* (the transfer of right to milk a certain animal for an agreed time limit) allow for herds to be split and reassigned across a number of often loosely connected families (Dahl 1979, Mohamed 2023). This allows the original owner to build up their herd, but also others, while herding labour is more evenly distributed across households. Livestock as property can be held in different ways, with singular, individual ownership not the standard (Khazanov and Schlee 2012). For example, '*fiig ola kennaat*' (stock friendship) allows a herd owner to transfer some livestock to 'friends' and disperse the remaining herd or flock. In case any calamity (drought, raid, or animal disease) affect the ones managed by the owner, then stock with friends are recalled. All these approaches of joint ownership, sharing, and redistribution based on collective solidarities run counter to the ideology of individualism at the centre of the market-based approaches of insurance.

A strong discourse of community and ethnic solidarity is voiced, despite the increasing individualisation and fragmentation of pastoral societies. For

example, a Kenyan pastoralist having suffered losses of livestock through raiding a few years earlier explained how he drew on 'the greater Borana' as well as immediate kin to replenish his decimated herd:

I had 20 calves which survived the raid, then I recovered 10 *dabare* (loan cows) from some of my relatives. Aside from these, the larger Borana community gave me eight cows and some were pregnant. After the raid, I now have 20 *yabiyye* (calves), a 10-strong *dabare* herd and eight *hirba* cows, totalling 38. (OT, Korbesa, February 2020)

In the same way, another herder who lost animals to drought explained how their family's herds recovered:

During the drought of '*bisan dimo*' (red water drought, 1996), we went to Merti with 200 cattle and we returned only with one cow and a donkey. We got community help because we have a good reputation among the Borana. Within a month we received 25 cows and in a short period the number of livestock reached about 100. Some people were giving us a cow with a calf and others were giving us '*saa'a doroba*' (pregnant cow). This helped us quickly recover the effect of drought and our herd unit increased. (FH, Isiolo, January 2020)

In the eyes of pastoralists, uncertainties are expected and local cultures and practices must address them. Q, a female 38 year-old pastoralist from Borana, Ethiopia, explained:

Uncertainty is not something I do not know, rather it is a situation where I cannot predict the extent of what's happening. I realised it is not entirely a bad thing: that is why Borana named it '*jibla/haala hin beekamme*' to mean unknown outcome and extent.

These vernacular understandings contrast with a calculative logic of insurance, where an individual hazard is defined and its likelihood of occurrence is predicted. In the pastoral drylands, multiple logics therefore collide. There are religious understandings that droughts or other occurrences are simply 'God's will', part of a predestined fate. And this is combined with practical reasoning accepting that survival requires deploying a multitude of strategies in the hope that some work. Careful observation, scouting out of alternatives and then flexibly adapting and muddling through allows the worst to be avoided.

Generating reliability in pastoral systems (cf. Roe 2020) requires wide knowledge of system properties through long experience, shared widely through local networks, combined with adaptive practices – such as movement,

stock redistribution, and establishing trading relations with smallholders for exchange of livestock with farmland, part of wider ‘caring’ relationships central to pastoralism (Scoones 2023b). For example, when a particular rangeland suffers a rainfall deficit in a particular year – actually a very likely occurrence in a non-equilibrium environment (Behnke *et al.* 1993) – the response is not to throw up your hands and wait for assistance (or an insurance pay-out) but to move. But mobility is increasingly constrained in these areas today, with infrastructure development, the expansion of farming and wildlife areas and conflict with neighbours hemming people in.

Movement has to be negotiated, with scouts sent out from herders’ camps to nearby areas to see if fodder and water is available, and how many others are competing for the resource. Motorbikes enhance transport to such areas, while mobile phones mean that scouts can report back and mobilise others. As explained by CD from Korbasa, Isiolo in November 2019:

The severity of the drought increased and the pastures in our area were depleting, then I went to Godana to discuss possibility of shifting our herds. Godana advised me to send his son and my son Kiya to look for pasture before we move. We each contributed KShs 1500 (15USD) for the motorbike and sent off the two boys.... When he came back, my son told me, mother, there is no place to go, there is no pasture and I responded let us stay and God will not forfeit us. We collected cactus pod, bought feeds, drilled a well near the riverbed and we survived, we only lost two *yabiyee* (calves).

This is not done individually, but as a group with many families working together. Strong social and political relations are forged across large areas, reinforced by political connections and a sense of wider political and ethnic solidarity. This allows livestock movement to occur or resources, such as water, to be accessed. AJ from Merti, Isiolo commented in February 2020:

For us the good thing is that we found underground water near Moyale owned by Boranas from Marsabit and we were storing water there as they are our relatives. The County Government of Isiolo was also providing water too; we received five deliveries from a water bowser, and the water served us from September to November.

Exploiting variability in rangelands – both in quantity and quality – is an essential facet of pastoralists’ strategies for living with and from uncertainty (Krätli and Schareika 2010). Uncertainty is not seen as a singular risk or hazard, but as a complex of intersecting factors central to how variabilities are experienced. The lived, everyday encounters with uncertainty suggest a different sense of time. The standard risk management approach – as encapsulated in

the insurance response – implies a response to a single discrete event as part of a long-running sequence of similar events of varying probability, stretching into a well-defined, predictable future, at least as suggested by long-run models. This view of time and the future reflects a liberal sensibility, where an open-ended future of possibility and improvement exists (Dillon 2007). Under such a perspective, the challenges of everyday life do not intervene and risks can be separated out, controlled, and managed through expert intervention and market-based mechanisms, including insurance. For many pastoralists, by contrast, such notions of manageable futures, calculable time, and predicted outcomes are less relevant, as temporalities are multi-layered, nonlinear, and contingent (Adam 2013, Bear 2016), with a very different outlook on what futures might be. Instead, everyday, in-the-moment challenges must be negotiated as an immediate priority in a highly variable environment (cf. Maru 2020).

Many poorer, marginalised people must therefore respond to ‘slow emergencies’ (Anderson et al. 2020), where alternative options are limited. The possibilities of an ‘advanced modernity’ with open futures are not evenly distributed, and many must struggle, cope and suffer selective and sustained structural violence (Mbembe 2001). Day-to-day responses to uncertainty therefore are conditioned by structural vulnerabilities, inflected by class, race, gender, and age, and temporalities tend to be short-term, repetitive, and constraining. Challenges are not defined in terms of singular ‘events’ that can be ‘managed’ as risks, but as overlapping, cumulative, ordinary experiences of uncertainty. These often emerge slowly as a generalised emergency characterised by ‘attritional lethalties’, rather than sudden, distinct crises and disasters (Anderson *et al.* 2020: 12). As a pastoralist livestock trader from Borana explained in March 2020, multiple uncertainties intersect:

Community discussions over resources – pasture, land for agriculture, conflict - are happening on a daily basis due to contested interests over resources. Each village is different; different people have different demands. Now, we are in the time of the pandemic, which is affecting our daily social, economic and cultural life. And then there are daily interactions that disrupt us. I am a trader, and I must carry cash. When I was travelling home on public transport from Moyale yesterday, we were stopped by the Ethiopian Defence Force five times. We get scared when they stop us. These things disrupt trading – if there are tense engagements with the opposition fighters, the phone connection will be disrupted.

By contrast, the anticipatory logics of early warning and insurance systems assume a particular temporality and style of response, based on predictive managerialism. However, in practice most pastoralists must struggle with such

intersecting vulnerabilities with overlapping, slowly evolving threats, which are not understood as distinct events. This results in a very different logic, more attuned to adaptive learning and response than the standardised emergency disaster systems so often promulgated by aid agencies and governments. A pastoralist in Merti, Isiolo explained how they survived the 2017 drought:

We moved our herds to *Ill-qoori*, and then we divided our roles: the women were cooking meals and looking after the young animals; and for seven consecutive days, men were drilling wells day and night. Thereafter, we contributed some money and hired a land-cruiser to bring us feed from Laikipia. In such a period, it is difficult to move with herds because they are very weak and long-distance trekking might weaken them further. Some of our group were collecting feed and bringing it to the *mona* (cattle pen). Through working together we survived the drought. (HM, Merti, January 2020)

This type of collective response, rooted in cultural forms of sharing and redistribution and responding to risks and uncertainties over time not as discrete events, can be seen in terms of what James Scott described as ‘moral economy’ (Scott 1977). In his terms, a ‘subsistence ethic’ overrides other logics, and a commitment to a peasant way of life ensures that market mechanisms do not overwhelm and subsume locally attuned practices. The type of responses so well described for Borana pastoral systems (cf. Dahl 1979, Coppock 1994) are all examples of forms of moral economy. However, it is equally important not to reify such cultural, community-based responses. As discussed above, not everyone can engage in stock sharing, nor can everyone rely on collective, redistributive practices. Pastoralist just as peasant societies are highly differentiated, and a simplistic, populist interpretation is limiting, as people must combined different strategies, some individualised, some collective; some part of marketized relations, others linked to local moral economies (Scoones 2021).

While in the past community solidarities were very evident, today divisions between rich and poor, men and women, young and old, town dwellers and others are very striking, both in Ethiopia and Kenya. For example, following the 2017 raid in Merti, Isiolo, it was easy for the rich pastoralists to recover. The first recovery process was the return of loaned livestock. In addition, the rich participate more in communal redistribution in good times and therefore have ‘good face’ among the community and they have upper hand in securing herds from communal restocking (*hirba*). Just as with the selective adoption of insurance, a local political economy is evident that results in diverse responses.

Moral economies are always changing, and new forms of solidarity may emerge, rooted in social relations and reinforced by cultural norms and local

institutions. As new uncertainties emerge, such collective arrangements must change. For example, with the emergence of COVID-19 in pastoral areas, the groupings that before helped out others in herding and stock redistribution are now working together to provide clean water for handwashing or food for those affected by movement restrictions (Mohamed 2020, Simula et al. 2021). Flexible, responsive arrangements are therefore key in local moral economies. With uncertainty – and even more with ignorance – you do not know what will hit you, your friend, or relative next. Investing in social, institutional, and political relationships that can be drawn on when unexpected challenges – often complete surprises – arise is essential. Such relationships can be mobilised quickly even if dormant for a while and can be applied to a diversity of situations.

The contrasting approaches of individualised insurance and vernacular, collective responses, however, should not be seen as exclusive – someone may take out insurance for one set of perceived risks, while still investing in social relationships that support a wider response to uncertainty. Depending on people's circumstances, they may combine insurance with other collective responses. As SG from Borana explained in June 2020:

My source of cash is providing a transportation service to the rural people through my motorbike. This means I have less time for my livestock and my brothers and sisters are going to school and cannot help with herding. I therefore mix livestock insurance with purchase of crop residues ahead of time.

For others, like LD, a female pastoralist from Borana, livestock insurance is combined with farming: when she invests more on insurance, she increases the cultivated land and changes the type of crop from maize (mainly for consumption) to *teff* (solely for the market).

The point is that the responses are different, focused on different things, with different temporalities and different local political economies, resulting in some gaining, while others lose out. Table 11.1 very briefly summarises some of the contrasts between index-based insurance and local moral economy responses highlighted in our explorations in this chapter, and the implications for the politics of anticipation seen in the pastoral drylands of East Africa (for further discussion, see Johnson et al. 2023).

Table 11.1: Contrasting responses to risk and uncertainty: implications for the politics of anticipation.

	Index based insurance	Moral economy responses
Framing	Risk – calculable, defined, predictable (single hazard)	Uncertainty – where futures are unknown/ unknowable (multiple, intersecting, cumulative uncertainties)
Futures, temporalities	Long-term, open-ended, but manageable, controllable, modern, progressive	Everyday, immediate, indeterminate, negotiated
Relationships	Individualised – temporary, contract based	Collective networks, mutualism, community solidarities – enduring, socially embedded
Trust and accountability	Asymmetric between insurer (trusted, technically legitimated) and insured (distrusted, potential defaulter), contractual vertical accountabilities	Equitable, negotiated, deliberated between parties involved, social horizontal accountabilities
Institutions	Markets (private or state-subsidised) – distant	Culturally-embedded social relationships, family/clan, religious institutions – local
Technologies and practices	Satellite imagery, models, early warning, forms, payment systems (premiums/payouts)	Surveillance, scouting, information sharing (motorbikes and phones), informal networking and negotiation
Benefits	Individualised benefits of payouts	Collectively shared, redistributed benefits (with limits)
Social effects	Adoption by the asset-rich, diversified, often male pastoralists, or in state system those able to sign up	Dependent on social, political, religious networks, differentiation by class/gender/age
Politics of anticipation	Control, management, individualised progress – powerful, dominant, well-resourced	Informal negotiation, care, solidarity – more marginalised, less visible

A politics of anticipation thus contrasts two strikingly different responses – a singular, individualised, market-based approach such as insurance with more collective, socially-embedded moral economy responses. As we have seen, relying on more flexible, adaptive, vernacular moral economies can result in more effective and immediate responses to uncertainty, and even be ready to tackle ignorance and complete surprise. This contrasts with the individualised approach through insurance, currently being vigorously promoted as part of drought solutions across the region. These may have their place, in combination with the existing array of drought responses, but the danger is that they crowd-out alternatives with external development efforts – such as major World Bank-supported programmes unfolding across the region - focusing on marketized, financialized mechanisms, such as index-based insurance – to the exclusion of more locally-embedded alternatives. Unfortunately, such collective moral economy approaches are largely not on the radar of external agencies and governments, although remain central to the day-to-day responses of pastoralists, as our research has shown (Johnson et al. 2023, Scoones 2023a, b).

Conclusion

There is an easy appeal to the managerial logics of index-based insurance as a route to dealing with defined, calculable risk. Commercialisation of the product means that protections can be offered through the market at a distance. The state equally can streamline its operations, reducing costs and increasing efficiencies, by offering generalised social protection through such market mechanisms, even if not on a commercial basis. The idea of an open-ended future that can be anticipated, prepared for, and responded to with a clear mechanism of course neatly fits the progressive, modernist narrative of development, hence the wide appeal of index-based livestock insurance among states and development agencies.

Yet such an approach is clearly limiting, as some promoters of insurance products admit (Clarke and Dercon 2009). Much relies on the ability to reduce uncertainties to risks and to calculate these, apportioning impacts spatially through remotely-sensed images to gear pay-outs to individuals. The assumptions in the models guiding index-based systems are legion, and sometimes come unstuck, with political adjustments being required (Johnson *et al.* 2019, 2023). In practice, despite the promotional rhetoric, commercial systems of index-based insurance do not provide uniform coverage, and there are inevitable lacunae with some unable to or unwilling to make use of the product.

Insurance, like any other financialised, marketized product, is therefore inevitably political, with winners and losers. In the case of index-based livestock insurance in Ethiopia and Kenya, it is asset rich, better connected,

and more diversified (male) herd owners who are the major beneficiaries. An insurance product creates an imaginary of an anticipated, manageable future, but it is only those who have the luxury to control it who ultimately benefit.

While insurance constructs a particular type of future, through the interventions of the state, the market and financial capital, others must confront the future and its attendant uncertainties in other ways. Those constrained by the violence of structural vulnerabilities – the poor and marginalised, very often women or young people without assets – must respond in a more mundane, regularised everyday way to the intersecting uncertainties of, for example, climate, conflict, disease, and market variability. Here, as we have shown for our two sites, social relationships, networks, and mutual solidarities become essential and temporal horizons are narrowed in a more adaptive, flexible approach rooted in diverse and differentiated moral economies and contrasting knowledges and practices (see also Johnson *et al.* 2023).

This is not an argument to glorify and unthinkingly celebrate the local and the indigenous, but to recognise that there are different frames through which risk and uncertainty are understood and different conditions of relative privilege and vulnerability that allow responses to emerge. None are right or wrong, but some have more power and influence, and associated resources, and others are less visible, more intangible, and less influential.

Accepting and appreciating the differences, as outlined in very schematic form in Table 11.1, allows us to avoid the attempt to assert a singular future, rooted in ‘colonizing’ assumptions of modernity, progress, and managerial control, and usually favouring the already rich and powerful (usually men). Instead, in thinking about ‘future-making’ in the drylands – and in rural settings in Africa more generally – it is important to accept more humility (Jasanoff 2007, 2010) and explore other imaginaries of the future (see Scoones 2024), which are rooted in more diverse framings, contrasting temporalities, and socially contingent moral economies, where uncertainty and ignorance are embraced and not reduced to calculable risk.

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Epilogue

African Futures and the Way Forward

DETLEF MÜLLER-MAHN AND MICHAEL BOLLIG

The contributions to this edited volume illustrate the wide range of perspectives on the topic of ‘African futures in the making’. In the current global context, it is evident that this topic is more relevant than ever. The future is highly uncertain not only in Africa, but everywhere. At the same time, the case studies from Africa demonstrate the various ways in which different groups seek to address the challenges that lie ahead. Democracy is all about making just and participative decisions about a multitude of possible future options. When democracies become endangered, one central issue that is often apparent is that one imaginary of the future claims precedence over other imaginaries. Because future-making is so central to our political systems it is of the utmost importance to attend to and comment upon such processes critically.

Where we are – a much-abbreviated account of the state of the art as presented in this volume

This book has addressed the key question of ‘future-making’, i.e. how people in Africa imagine, shape, and produce their own futures. This has been the overarching theme of all contributions, which have been based on a wide range of empirical examples and conceptual reflections. Focusing on different spatial scales, geographical areas, strategies, and social and political contexts, all chapters share three key features. Firstly, by placing the ‘making’ of futures at the forefront, they emphasize the significance of agency. They highlight the creativity and vitality of people who strive to imagine and influence the conditions under which they want to live without disregarding their social and cultural embeddedness and their positionality in networks of power and dependence. This challenges the prevailing popular development narratives that portray the continent as lacking, backward and vulnerable. Secondly, by approaching African futures ‘in the making’, the book explicitly acknowledges the incompleteness and openness of the future. Understanding futures as

unfinished projects or processes acknowledges uncertainty, but also recognizes possibilities and opportunities. Thirdly, the wide range of case studies in the book illustrates why we speak of futures in the plural. There is not just one more or less predetermined future that can be clearly anticipated and predicted. On the contrary, current pathways into the future may lead in different directions; some are more probable than others, but their outcomes remain unknown. Uncertainty implies that the future is open to unexpected changes, surprises and disruptions, as well as alternative visions and initiatives that could lead to positive change. While uncertainty and unpredictability shape future-making agendas, they always have an impact on the current moment, on everyday politics, and on negotiations over the best pathway to take.

Admittedly, the focus on agency should not lead us to overemphasize personal freedom, as some people have to plan and act under severe constraints. Their endowments and entitlements – their material capacity to aspire, as Appadurai has put it – is essentially shaping the way futures are approached. We need to take into account structural disadvantages, such as poverty, marginalization, violent conflict, and environmental degradation, which reduce the scope of human agency and narrow the space in which it is possible to aspire. In order to make sense of future-making in Africa and elsewhere, the duality of structure and agency must be considered in the sense of Giddens' structuration theory. However, the current trend in futures studies in the African context seems to prioritize agency while neglecting the relevance of structure, power, and inequality. Research should therefore also distinguish between enabling and constraining conditions and go back to the original sociological key questions that aim to trace the relation between agency and structure.

Where we hope further research will be heading

Two contributions to this volume focus on a decolonization of future-making agendas. They reflect upon the extent to which the concept of future-making is tightly linked to imaginaries of temporality typical of colonial regimes. To plan a future, to manage the future and to attempt to approximate probable futures is ostensibly linked to the governmentality of extended bureaucratic apparatuses. Bearing the quest for decolonization in mind, is it then possible to specify African temporalities and free the concept 'future' from its Western epistemology? Both contributions make clear that it is an arduous task to recover local temporal concepts and make them operative for planning. Both contributions leave little doubt that there is still a lot of ground to cover and explore when linking the quest for decolonization and emancipation to the topic of future-making. Possibly, decolonization is also only one lens to emancipate local concepts of temporality from hegemonic visions. Islamic concepts of

time and knowledge furthered by the Sudan's Islamic revolution of the 1990s, have marginalized other, including other Islamic, versions. Similar disparities have been observed in southern Ethiopia, where expansive Amharic concepts of time marginalize other indigenous versions of it. These observations urge us to look closer at hegemonic visions of temporality and future-making and how they empty other visions. Of course, marginalized communities and subalterns do not simply consent to such hegemony; rather, they generally resist and offer alternative imaginaries and/or sabotage dominant ones. Possibly, there is not only conflict but also a search for compromise and hybrid forms of future-making. We should not forget that most people try to harmonize different imaginaries of the future as well as different practices of future-making on a very personal level.

What other perspectives on future-making will further research have to consider? Admittedly, the selection of topics and authors represented in the collection of articles has some biases, which should not be concealed. First, the case studies prioritize examples from rural areas. This is because the focus of the collection was initially on rural areas, simply because the initiative for this publication came from the collaborative research centre 'Future Rural Africa'. The majority of contributors to the book are members or affiliated partners of this large research group, which is shown in the thematic and regional focus of the empirical case studies. We do of course see the rural not merely in juxtaposition to the urban, but as an integral part of the continent. Whatever concerns political decision-making, financial flows, social transformation, or economic dynamics has to be understood from an integrative perspective with regard to urban-rural relations. Even so, we believe that an explicit focus on rural futures is a reasonable approach, because the processes and practices of future-making presented in most of the articles become visible and empirically approachable in rural contexts. This becomes particularly evident in the case of agricultural intensification, in the establishment of large-scale conservation areas, in the introduction of new technologies in agricultural production, or in rangeland development. It is in rural settings where Western and local temporalities, and deduced probabilities and possibilities, clash.

However, we concede that coming studies on future-making will zoom in on rural-urban as well as local-national-international imaginaries and practices of future-making. In a project that has just been kicked off, one of the authors looks at the emergence and rapid spread of medium-scale farms across the African continent. Such farms are often started by successful migrants who have made a good income in urban surroundings and endeavour to invest capital in farms in their home areas – often with the very explicit aim of safeguarding their personal future well-being after retirement, but occasionally

also with the idea of ‘developing’ and ‘modernizing’ rural communities and landscapes. Further, rural (as much as urban) youth aspire to globalized versions of future-making which are transmitted via smartphones. Imaginaries of different hyper-modernities, counter-modernities and even de-globalized modernities are streamed and broadcasted around the globe. It is here that new projects on future-making would find fertile ground.

Secondly, the perspectives on African futures presented in this book reflect the disciplinary affiliations of its authors, who mostly work in human geography (including economic geography), social anthropology, and political science, together with two philosophers. Representatives of some other social sciences are sadly missing, such as from history, agronomy, and psychology. The disciplinary background explains the selection of topics of the papers, and also the blind spots, for example the history of development plans and past imaginations, the limits and opportunities of agricultural production, or the expected impact of climate change on the local ecology. Some important topics deserved more attention, but they are not presently covered by the authors. Foremost among these is the topic of the demography of African societies, which will be central to future scenarios. Population numbers in Africa are still rising steeply, while the demographic transition in almost all other parts of the world has advanced to stable or even shrinking conditions. Further, there are enabling and disabling factors of mobility. Future-making often means movement across borders and ever more often across continental divides. With progressive emphasis on national borders and hindrances to mobility, future-making will include multiple different perspectives.

Thirdly, the case studies focus primarily on Eastern and Southern Africa, because these are the study areas of the Collaborative Research Centre Future Rural Africa. Many of the conditions presented in the chapters herein may be comparable across the continent, as may more general reflections presented in the philosophical contributions. If spatial perspectives were widened to include central, western and north-eastern Africa, the subject of violence would necessarily come into play. None of the contributions include the effects of widespread violence on future-making. Violence cuts future-making short. Refugees will rarely have the luxury of dealing with future-making with regard to a long-term perspective, but are rather engaged in securing a future for themselves and their families for the next few weeks. Further research on future-making may more explicitly engage in systematic comparisons of cases across the continent.

Research on future-making is essential for democratization and emancipation. Given the manifold challenges that societies worldwide are facing from global environmental threats and the possibility of the fragmentation of a global system due to ‘Make My Country Great Again’ campaigns, from

various forms of fundamentalism and extremism and from politics of isolation, research on future imaginaries and future-making practices is even more necessary in the search for well-being and participatory democratic forms of participation.

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