Moving Deserts

Stories of mobilities and resilience from Turkana County, a Kenyan desertscape

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Moving Deserts

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Abstract

This thesis is about resilience, drylands, and pastoralism. It aims to enhance our understanding of the meanings of resilience from the perspective of pastoral communities in drylands and in the context of their everyday lives. It draws on the case of Turkana herders living in Kenyan's northern drylands, a place of "resilience making" for the international community. Threatened by recurrent droughts, security issues, and precarious living, Turkana County is the perfect laboratory for international organisations interested in "building resilience" to shocks and disasters, and in turn also a compelling case for a thesis which hopes to bring a more grounded, nuanced, and rooted understanding of resilience in drylands.

There is a "paradox of representation" as scholars portray pastoralists as one of the most resilient groups while practitioners see them as the most vulnerable. In this thesis, I set out to explain how there could be such divergent viewpoints and to bridge the divide. I suggest that resilience is discussed in the international development regime as a cornerstone of "pastoral development" through three dimensions: landscape, lifescape, and bodyscape. Based on 14 months of ethnographic fieldwork, I examine the local meanings of resilience across these dimensions and contrast them with outsiders' interpretations emerging from policy documents, development interventions and scholarship.

The empirical analysis reveals the fundamental role of mobility in the lived experiences of Turkana herders. The most significant contribution of this thesis is the emergence of mobility as an integral part of everyday life, providing a new lens for the understanding of resilience which challenges dichotomous, linear, and "bouncing" views of resilience. Instead, I argue that mobility—in its many manifestations, as a quality of space, as something people do, as an aspect of identity—allows for more fluid, dynamic, and kaleidoscopic accounts of peoples' lives. I thus propose mobility as the site where resilience takes root and where a richer grasp of resilience, drylands, and pastoralism can be found.

A Cosimo

“Onde a alma possa descrever

Suas mais divinas parbolas

Sem fugir a form do ser

Por sobre o misterio das fabulas”

Carlos Drummond Andrade

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Acronyms

AGIR	Global Alliance for Resilience Initiative
ASALs	Arid and Semi-Arid lands
ASAUK	African Studies Association of the UK
ASP	Arid Land Support Programme
BMU	Beach Management Units
CIDP	County Integrated Development Plan
DFID	Department for International Development (Gov.UK)
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
ECHO	European Commission Humanitarian Aid and Civil Protection Office
EDE	Ending Drought Emergency
EU	European Union
FA	Factor analysis
FAI	Italian Aid Fund
HFA	Hyogo Framework for Action
HoA	Horn of Africa
HSNP	Hunger and Safety Net Programme
IDDRSI	Drought Disaster Resilience Sustainability Initiative
IGAD	Intergovernmental Authority on Development
ILRI	International Livestock Research Institute
IUAES	International Union of Anthropological and Ethnological Studies
KEMFRI	Kenya Marine and Fisheries Research Institute
LRRD	Linking Relief, Rehabilitation and Development
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
NGOs	Non-governmental organisations
NORAD	Norwegian cooperation
ODID	Oxford Department of International Development

OECD	Organisation for Economic Cooperation and Development
SDGs	Sustainable Development Goals
SES	Socio Ecological System
SFDRR	Sendai Framework for Disaster Risk Reduction
SIDA	Swedish International Development Cooperation Agency
SLA	Sustainable Livelihood Approach
SLF	Sustainable Livelihood Framework
SRC	Stockholm Resilience Centre
TRP	Turkana Rehabilitation Project
UN	United Nations
UNCOD	United Nation Conference on Desertification
USAID	U.S. Agency for International Development
WB	World Bank
WCDRR	World Conference on Disaster Risk Reduction
WFP	World Food Programme

Acronyms for field data reference

FD	Field Diary
FGD	Focus Group Discussion
FN	Field Note
HH	Household Interview
ICR	Informal Conversation Recorded
KI	Key Informant Interview
LQ	Livestock Questionnaire
PGIS	Participative Geographic Information System
ST	Song Transcribed

A note on data reference and text

The four empirical chapters draw on a combination of field notes, field diaries, recorded conversations, and interviews. Verbatim phrases that are included in the main text are framed in quotation marks and italicised. Longer quotes are separated from the main texts in a new line, indented, and italicised with full source details specified (cf. “acronyms for field data reference” for the coding of sources).

The thesis is written using two font styles: Calibri (main text) and *Times New Roman italics* (unfolding storyline).

Turkana vocabulary

Abarait	Circular knife
Abela* (or *akeat)	Walking stick for women (depending on her brand/clan)
Abor	Temporary satellite camp
Aburo	Herder's staff
Abwo	Front skirt (from livestock hides)
Adakae	Sediment or residuals of local brew from fermented sorghum or maize
Adakar	Neighbourhood based on relationship
Adwel	Back skirt (from livestock hides)
Agatha	Prayer
Aite	Cow
Akaloboch	Wooden spoon
Akamu	Dry season, drought
Akidedet	Butterfat
Akigum	Livestock bleeding practice: small incision close to the nose for shoats and on the neck for cows and camels
Akilep	To ask for something
Akimad	Healing process though burning
Akimiet	Ghee
Akine	Goat (used also generally for small livestock)
Akiporo	Rainy season
Akireb	To scout
Akiriket	Meat ceremony
Akiring	Meat
Akiru	Rain
Akoro	Hunger
Akuj	A monotheistic divinity, God
Akurum	Calabash
Akuuta	Wedding
Akwap	Unbounded place

Alagai	Necklace
Alaar	Homestead fences
Alagama	Aluminium ring (for married woman)
Alogita	Age group dances
Amok	Ritual performed to leave "bad things" behind. For example, after a healing process or to restore the path of tradition when norms have been violated. It is instructed by a local seer
Anaikis nghichan	"Going-through", adjusting, and overcoming problems
Anok	Kraal, enclosure for livestock for night protection
Aperor	To visit
Apol	Part of the kidney, muscles, and fat cut from the hip of an animal; each clan cuts this part of an animal in different ways during *akiring* (meat ceremony)
Aruak	Fat from a cow's stomach
Arumrum	Defence cluster
Asapan	Initiation ceremony
Atap	Ugali, local dough made from maize flour
Ateker	Ethnic group composed of Karamojong, Jie, and Dodos of Uganda; Taposa and Jiye of southern Sudan; Nyangatom of Ethiopia; Turkana of Kenya
Atoroth	Wooden container
Atubwa	Wooden bowl
Awi a ng'orot	Home of long ago
Awi	Household
Baraza	Village meeting
Boma	Homestead (Kiswahili)

Ebob	Delicious
Echuka	Maasai blanket (derived from Kiswahili)
Edeke a akuj	Disease of God
Edeke a ngikpelak	Diseases of witches
Edeke a Ngi'turkana	Diseases of the Turkana
Edeke	Disease
Edodo	Dry milk
Edonga	Village dances
Egolos	Long front-dress made of livestock hides
Ejomu	Livestock hides
Ekaal	Camel
Ekapalan	Healer, witch
Ekaru	Year
Ekaru a korie	The year of something colourful
Ekaru a Red-Cross	The year of the Red Cross
Ekaru a wimbi	The year of millet
Ekaru adicho Nanyang	The year of yellow maize powder with egg yolk
Ekaru amuje kimet	The year to eat fat
Ekaru ekalakal	The year of sacks
Ekaru emuudu	The year when everything finished
Ekebotoonit	Someone who has no animals (used to indicate someone who is poor)
Ekechodon	Temporary lack of animals (used to indicate someone who is poor)
Ekeriau	*Cyperus articulates*
Ekicholong	Stool
Ekilton	Type of edible shrubs
Ekitela (pl. Ngitela)	Territorial section
Ekol	Sleeping hut
Ekuwom	Wind
Ekwar	Land
Elado	Whisk made from cow's or camel's tail

Eleu	Long skirt sewed together from multiple hides differently patterned
Elongait	Someone who has no relatives (used to indicate someone who is poor)
Eloto	Ritual to ask a woman for marriage
Emachar	Clan, or livestock brand
Emoit	Enemy—expression used to indicate other pastoral groups who are contending for vegetation resources, water, and livestock, as well as white or African foreigners
Emuna	Mixes of wild fruits and animal fat
Emoru	Mountain or rock
Emuron (pl. ngimurok)	Seer
Engol	Palm tree
Enyath	Fried meat
Epeduru	Tamarid tree
Epocho	Ground maize-flour
Ere	Broadly translated into "home-area" (Müller-Dempf 2014); it is often referred by the Turkana as the "father's land", the "place where one was born" and the "place to always return"
Erot (pl. ng'irotin)	Path
Esebo	Hunting club
Etaba	Tobacco (derived from Kiswahili)
Ethekon	*Salvadora persica*, or toothbrush tree
Ethikiria	Donkeys
Etid	Spleen
Etirae (pl. Natirae)	*Prosopis*
Etwo	Gourd
Ewoi	Acacia

Ewote	To migrate with livestock
***Fagy* fish**	Spoilt fish sold along the lake shores to be used as chicken food
Githeri	Mix of beans and maize (Kiswahili)
Hoteli	Restaurants
Loline	A village that developed along a road
Longapen	Disease of craziness, described when people start running around naked, jumping on people's huts, and talking nonsense
Magadi	Dry salt
Mandeleo	Development (Kiswahili)
Mkeka	Mat (Kiswahili)
Muzungu	White foreigner (Kiswahili)
Mwarobaini	Neem tree (Kiswahili)
Mzee	Old man
Nakhaabaran	*S*alty water
Ng'agario na ngorok	Cars with black and white patches
Ng'abwelin	Pools of water
Ng'ageran	Scarification
Ng'akoromwa	Beads
Ng'alup	Soil
Ng'ichok	Palm fruit seeds
Ng'ichwei	*S*acks made of livestock hides
Ng'imeramuk	The clan who wear crocodile sandals
Ng'imor	Age-set stones
Ng'ipean	Evil spirits
Ng'irithai	Age-set leopards
Ng'irupei	Short showers of rain
Ng'iturkana	Turkana people, literally: "people of the caves".
Ng'achoto	Dry cow urine-grains
Ng'akile	Milk
Ng'akibuk	Sour milk
Ng'ingalur	Kidneys
Ng'itit	Acacia pods

Ng'iukoi	Lungs		aesthetics, and code of behaviour
Raiya	An expression which indicates belonging to a livelihood group (herders) but also to a lifestyle,	***Royco***	Cube stock
		Shamba	Garden (Kiswahili)
		Sukuma	Kale (Kiswahili)

Edung, engomo, edome, epat, ng'akalalio: some wild fruit.

A prologue

The woods are lovely, dark and deep,

but I have promises to keep,

and miles to go before I sleep.

ROBERT FROST,

1923.

Where: from Lokiriama, Uganda-Kenya border, to Urum, Turkana County.

When: the night of December 21st, 2017.

Who: myself, a researcher from Oxford, two assistants (one originally from Loima and one from the lake shores), a border patrol officer, a lorry driver, two Turkana boys and a dik-dik.

Why: to reach Urum, in order to continue field research with the Turkana herders.

The young girl looks back to Uganda, then south-east; her two assistants slouch under a thorn tree. One is sick, maybe with malaria. She has medication with her which she can give him in case the small dispensary in the village is unequipped, as she suspects, remembering her visit the previous year after a small injury on her foot. The border patrol, at the last checkpoint before entering Uganda, tells her they cannot stay there; the night is approaching, and they do not want to be disturbed by her presence. So, they stop a lorry. The lorry driver is a smuggler of beers (Senators) from Uganda to Kenya. He hates having passengers (let alone a white girl), but he cannot refuse the patrol and he is going to Kakuma along the same rough road which cuts through Urum. They agree on a fee which she would pay for each passenger to thwart any potential issue (or so she thought). Everybody gets on board. The girl squeezes inside the cabin, between the Ugandan driver and the ill assistant, while the other assistant holds on to the luggage on top of the illicit cargo. Off they go.

They enter the landscape: barren hills, dry riverbeds, sparse thorny bush, deep ravines, scattered lava rocks, stony flats, patches of dried up, half chewed grass. The lorry whips up gusts of dust that stay in the air like whirlwinds. The locals refer to them as ng'ipian *(malevolent spirits). This is the drylands.*

The night falls like the sun had a heart attack. Perceiving the drylands-in-black, the girl is alerted to new senses: ups and downs, bumps, nausea, banging metal/rocks, hurting body-parts, the intoxicating smell of fuel, temperature variations, horrible sounds from the battered lorry,

maybe a complaint from the assistant or curses from the driver. The sky is pitch black, and the stars are like sharp holes of light. She keeps on looking up as if her eyes can go through the metal ceiling of the lorry and make sure that the second assistant is doing fine on top of the cargo. No thirst nor hunger. They have not eaten the whole day and it is impossible to drink with the bumpy movement of the lorry; but who cares in the drylands?

The girl starts dozing, it is inevitable. Maybe the driver too, but nobody would notice. One of the million stones hitting the metal under her seat wakes her up. She opens her eyes and sees it: they are passing Urum, full speed. She knows because she was there one year before. She recognises the blue roof of the primary school. In a mixed English and Swahili, she shouts to the driver to stop, that they have arrived. The driver says he is no taxi. Dark drylands are eating Urum up, fast. There is only one thing she can do and in a second she leans on the driver and grabs the key from the ignition. The lorry stops, the driver swears, she turns to her left, opens the passenger door, holds and pushes her assistant down the truck, and screams at the second assistant to throw down all their luggage (including: 50kg of beans, 20kg of maize, 10kg of rice, 5kg of tobacco, 5kg of sugar, plenty of tea leaves, some empty jerricans) and to jump down himself; quickly! She hears the driver swearing; his door opening and shutting noisily. His first steps.

Then, total silence. The night suddenly immobilises.

In the cloud of dust risen by the sudden stop, two lights appear from the bush. They look like the eyes of an alien moving in a desert storm. No, they are modernised drylands dwellers: two very young Turkana boys with bows and arrows. They hold a dead dik-dik they just hunted. They are stark naked, with headlamps on their forehead.

The Ugandan driver, the two assistants, the young researcher, the two Turkana boys, and it seems even the dead dik-dik—all face a few seconds of incredulity. As if they are numb and looking in each other's eyes but not knowing who to seek reassurance from. Also, the two boys blind everybody, slicing the pitch-black night with their headtorch. Then, they all wake up (except the dik-dik). Together with the two assistants, the young girl gathers the luggage, tries to calm the driver, gives him the promised fees for the lift, and as quickly as possible (despite the heavy luggage) starts walking towards the primary school. The two Turkana boys pay no attention to her: they head to the driver.

The girl and the two research assistants walk following the smell of dung (where else?) towards the crowded huts of the village, ghastly lit by the first green light of dawn. Smoke is twirling in

the air, metal cattle-bells tinkle and lambs bleat for milk. The last image, turning backwards: the two boys are selling the dik-dik to the Ugandan driver; they shout for more money. Then the morning comes.

*

An outsider's view as a comment:

In the real-life episode narrated above, all actors are outsiders: the border patrol, the Ugandan driver, the assistants (educated Turkana youths), the "white" researcher girl, even the two young Turkana boys, herders and hunters, naked but with quite a "modern" torch and a keen sense for business and cash. All characters, in their "alienness", show flexibility, adaptation, shock absorbance, innovation, recovery, and mobility: they are, in other words and according to the author's understanding, resilient.

The resolution of the episode came after the girl suddenly stopped the movement of the lorry; but it was then only enabled by the successive micro-movements generated by the trigger-action. Pastoralism is in the background, at dawn: Urum as a lifescape (the locus of livelihoods), with smell, smoke and sounds. The bleating and the bells tell a tale of livestock rearing; Urum as a landscape (an ever-changing dryland—in colour, shape, smell, vegetation); Urum as a bodyscape (the body of the actors in the drylands—and the body of drylands too—including individual, social, and politic dimensions of the body).

This thesis tells a story of continuous movement. Mobility on foot, by lorry, inside the mind, over a hidden socio-geography, going along from household to household, along dry creeks, plains, mountains, and lake shores. To understand the movements of the landscape, lifescape and bodyscape, as foundational actions of resilience, I propose a thesis which unfolds after having reached Urum that night of the 21st December 2016. It is a thesis of encounters, negotiations of the self and the other, perceptions of an ever-changing place, constructions and destructions of materials, villages, and settlements, and a thesis about all the "lines" of movements which thread into a story of mobilities and resilience, drylands and pastoralism, taking place in Turkana County, a desertscape in Kenya.

~ Introduction ~

This thesis is about resilience, drylands, and pastoralism. It aims to explore and enhance our understanding of the meanings of resilience from the perspective of pastoral communities in Arid and Semi-Arid Lands (ASALs) and in the context of their everyday lives. It draws on the case of Turkana herders living in Kenyan's northern drylands, a place of "resilience making" for the international community, development/humanitarian actors, and policy makers. Threatened by recurrent droughts, security issues, and precarious living, Turkana County is the perfect laboratory for international organisations interested in "building resilience" to shocks and disasters, and in turn also a compelling case for a thesis which hopes to bring a more grounded, nuanced, and rooted understanding of resilience in drylands, of what it means and entails for the people of the desert.

It is a study which involves many senses and actions (seeing, hearing, experiencing, walking, weaving, building and destroying, imagining and belonging) that constitute life in *desertscapes.* All these are brought together in a "dialectical, dialogic, polyphonic" ethnographic narrative (Robben and Sluka 2007:17) that draws the reader in, brings her phenomenologically closer to the people and places narrated. It allows her to follow as the text unfolds—like nomadic pastoralists respond to the contingent social, ecological, economic, political, and cultural "immediate" as well as the "social imaginary" (Vigh 2006).

The most significant contribution of this study is the emergence of mobility as a fundamental renewed lens for the understanding of resilience. Challenging dichotomous, linear, and "bouncing" views of resilience (cf. Chap.1), mobility—in its many manifestations (as a quality of space, as something people do, as an aspect of identity)—allows for more fluid, dynamic, and polythetic accounts of peoples' lives. I thus propose mobility as the site where resilience takes root and where a richer grasp of resilience, drylands, and pastoralism can be found.

I have learnt the importance of mobility inductively from Turkana herders and pastoralists through their ways of crossing their lived landscape, their ways of "seeing" and "navigating" through an ever-unsettled space. Nonetheless, the complex forms of mobility I show in this thesis speak beyond the case of Turkana.

The acknowledgment of the relevance of mobility, for example, helped me make sense of a recurrent episode in my own family. Every year, my father brings me the same gift from the Danakil depression in Ethiopia where he guides tourists: a nail from the desert.

Figure 1 Nails from the desert, Ethiopia



Courtesy of Andrea Semplici

It is the same nomad man who sells my father the same kind of nail in the same place, every year; and through time they have developed a silent friendship. "*These nomads never move!",* has become our yearly joke. And yet, that nomad did move. He had to learn to bend and thread iron, while herding camels. He had to learn the time and routes of tourists. He had to interact with people from a part of the world and a culture he never knew and to behave as expected and imagined in his own constructed social imaginary of "outsiders" like my father. The place around the nomad man is also never still. Over a long-time perspective, seasons bring restless transformations to the land covered by dust and heatwaves, by torrential rains or rainbow-coloured pools of water. It is a place in constant movement.

Figure 2 Dallol salt fields



Courtesy of Andrea Semplici

Mobility and movement are trending topics among academics across many fields. Everything is being related to movement and everything seems to be about mobility or migration. I do not want to force everything into the category of movement, but I do wish to argue that immobility, either cultural or forced, is a dangerous condition for peoples and places, especially at the margins.

The Danakil camel herder is highly endangered by the Chinese appropriation of the salt fields and by the transformation of his space, where the creaking sound of camel steps over dry salt terrains has been replaced by the knocking of the same steps over tarmac roads or by the engine of lorries and pick-ups. His acts of movement are his weapon of awareness, resistance, negotiation, and navigation through a fast-changing society and its disruptions. In other words, his resilience.

In the remainder of this introduction I broadly present the fields of study of this research, namely: resilience, drylands, and pastoralism. Engaging with the existing development literature in these three fields, there emerge three main areas of interest (discussed at more length in Chap.1), which I refer to as perceived "pastoral problems". I strive

toward a more nuanced understanding of these issues from the perspective of Turkana herders. I then explain why I chose Turkana as a case study and provide a brief profile of the region, further expanded in Chap.2. Finally, I lay out the research questions that motivate this study and conclude with a roadmap of the thesis and its contributions.

What is this research about?

This thesis sits at the crossroad of three broad fields of study: resilience, drylands, and pastoralism.

*

Firstly, this study is about resilience—a popular concept adopted across numerous disciplines in different ways, perspectives, and approaches. It has increasingly also been used by donors and practitioners who are *en masse* referring to resilience-frameworks in development programming all over the world. Thus, the use of the term resilience is spreading fast, and it is being very quickly modelled, operationalized, and implemented.[2] But the usefulness of the concept is debatable and the term itself contentious.

Derived from Latin *resilire*—to jump-back—it was first used by naval architects in the late 19th century to assist ships' resistance during navigation.[3] It went a long way through ecology, psychology, and engineering before crossing those disciplinary boundaries and entering the discourse of the development and humanitarian sector. Here, definition after definition is proposed, contested, deconstructed, and re-assembled by various agencies and organisations in public and private debates, resulting in great flexibility in the ways resilience is used. On the one hand, this flexibility is advantageous as it guarantees adaptability to specific contexts and the possibility to tailor interventions to situations on the ground. On the other hand, the amorphous term may allow practitioners to propose resilience projects and attract funding without binding them to substantial scrutiny and reform of implemented interventions.

Centred around the notion of "crisis", its prevailing operationalisation (how resilience is translated into practice) lies in the field of disaster planning, developed around three main

[2] Cf. Alinovi, D'Errico, et al. 2010; Alinovi, Hemrich, and Russo 2008; Alinovi, Mane, and Romano 2010; Barrett and Constas 2014; Ciani and Romano 2014; Frankenberger et al. 2012; OXFAM 2013; Pasteur 2011; Vaitla et al. 2012.

[3] Thanks to Marco D'Errico for this insight.

areas of interest: protecting the environment and enhancing its stability; strengthening the productivity of livelihoods and enabling their prosperity; saving lives and enhancing security.[4] However, these different dimensions of resilience are generally defined around programmatic objectives for crisis management, and there is little agreement about what they mean in practice for everyday life beyond the "shadows" of the crisis (Bakewell and Bonfiglio 2013). There remains, in other words, a considerable amount of work that needs to be done before resilience can be adopted usefully by practitioners and governments in support of their populations.

*

Secondly and within resilience debates, this study focuses on drylands' resilience. Drylands are the largest landform on earth, covering approximately 40% of land surface (Cervigni and Morris 2016; Reynolds et al. 2007; UNCCD 2016; UN/EMG 2011). Home to more than two billion people, about 38% of the world population, drylands are found in all continents. 90% of the world's dryland population is in developing countries, including 40% of the African population, 39% of the Asian population, and 38% of the South American population (De Jode 2010), and report some of the highest levels of poverty (FAO 2017). According to many international agencies: the world's poorest live in drylands (UNCCD 2016).

Defined by physical characteristics such as water scarcity, thin vegetation, and low levels of precipitation[5], the role given to drylands is one of deficit—as one which is "lacking in some ways": unproductive, fragile and with scant resources, remote and peripheral to urban hubs and cities (Krätli 2013:1). Among some speakers at the conference of the African Studies Association of the UK (ASAUK) in September 2018, drylands were still referred to as "hopeless landscapes", and hotspots of natural disasters, social conflicts, and poverty.

The persistence of negative sentiments towards drylands, especially in policymaking circles and development reports, does not capture the extreme diversity which characterises drylands worldwide and the variety of habitats they contain. These, in fact, include

[4] Cf. Chap.1

[5] The United Nations Convention to Combat Desertification (UNCCD) defines drylands as: "areas where the potential amount of water that is transferred from the land to the atmosphere is at least 1.5 times greater than the mean precipitation", a calculation known as the aridity index. One alternative intuitive definition of an arid area is "the land of the empty bucket": if you place a bucket outside on the ground and it never fills up, you are in a desert (Warner 2004). That is, evaporation exceeds precipitation.

Mediterranean systems, cold deserts in Mongolia and Chile, the hot deserts of the Sahara and the Sahel, high altitude drylands in Iran, Tibet, and Afghanistan, the low plains of the Horn of Africa's, and the tundra of the Arctic Circle ecosystems (Krätli 2015). It also ignores the economic functions that drylands serve as including rangelands (65% of global drylands), rain-fed and irrigated farmland (25%), woodland as well as rapidly expanding urban hubs (10%) (UN/EMG 2011). Finally, it overlooks the provision of 50% of the world's livestock, some of the world's most important staple foods (maize, beans, sorghum, millet, and various species of wheat), and wood products which contribute to national and regional energy economies.

In reconciling these narratives, as highlighted in a recent edited volume on drylands, there emerges a dissonance between policy and science (Behnke and Mortimore 2016). Policymaking is based on a "development narrative": a clear story line, with bold implications, and urgent funding required (Swift 1996). In drylands, the development narrative is a story of desertification. It is a story of exploitation of pristine environments because of human greed and self-interest through overgrazing, overcultivation, uprooting of plant species, deforestation. And it calls for external interventions by means of technical solutions and expert consultancies to prevent and reverse deterioration.

Scientific evidence on the state of drylands' degradation however has debunked this narrative. The observed regreening of the Sahara (Olsson, Eklundh, and Ardö 2005) has allowed for a different understanding of the behaviour of drylands in terms of long-term fluctuations. Although average rain level seems to be a variable of self-evident significance—and indeed it is an important element of dryland ecology—it is often characterised by high variability for which average measures are of little value (Krätli 2016). Instead, an array of other components has gained recognition as important for the study of drylands, including soil type, terrain topography, moisture, and plant palatability. Research also shows that most degradation occurs in humid areas (78%), whereas only 22% is in drylands (Krätli 2015). And current stress found in drylands is no longer attributed to the fragility of the landscape nor to the misbehaviour of its inhabitants; rather, it is believed to emerge from intensification and commercialisation processes which, unless combined with "resting periods" of rangelands, inevitably lead to long-term resource degradation.

Renewed scientific understandings of drylands thus contradict the orthodox paradigm of drylands' desertification and many of its underlying assumptions. Some of these changes have

been incorporated in an emerging paradigm, defined by Mortimore as the "resilience paradigm" (2016), drawing from ecological theories about "instability but persistence" that emerged in the late 1970s (Holling 1973).[6]

Nonetheless, the desertification narrative itself persists—highlighting the political nature of these debates (Behnke and Mortimore 2016). Decades of objections have only partially scraped the "development story", which was reaffirmed in the Millennium Development Goals (MDGs) and even more recently in the Sustainable Development Goals (SDGs) with Goal 15:

> "By 2030, combat desertification, restore degraded land and soil, including land affected by desertification, drought and floods, and strive to achieve a land degradation-neutral world."

It therefore appears that the renewed resilience narrative has yet to be sufficient to change dominant attitudes towards drylands; or perhaps it is yet to be faithful to the contexts in which it is applied. Another narrative of drylands is still needed—one which Stafford Smith defines as "uncomfortable" (Stafford Smith 2016) insofar as it contests years of inappropriate interventions and billions of dollars spent uselessly. This shall be based on an "alternative science" built from within and not above drylands; starting from the knowledge and perception of the people of the desert.

*

Thirdly, among all the different people making a living in drylands (including urban and rural livelihoods), this thesis focuses on mobile pastoralists—or, broadly, on the people who raise domesticated animals and practice livestock rearing (Chatty 2013). Mobile pastoralism is practiced in dryland environments globally (Africa, South and Central Asia, the Middle East, Europe, and Latin America), and rough figures indicate that 100-200 million pastoralists live in the world today (Ahearn-Ligham 2016).

The study of pastoralism has a long history. There is indeed a long-term and persistent fascination with nomadic pastoralists which goes back to the Greeks (Miggelbrink et al. 2013),

[6] Cf. Chap.1.

with traces in the Bible and the Koran (McDonell 2016), and remains rooted in the image of the "noble savage" (Chatty 1996)—while interest continues to grow today.

Pastoralism studies have historically been dominated by anthropologists (Blench 2001). The initial colonial interests in large herds and use of extensive grazing in rangelands led to the development of several monographs (Evans-Pritchard 1940; Lattimore 1962; Stenning 1959). Reflecting dominant views of pastoralists as "brave, independent, fierce men, freely moving with their herd" (Dyson-Hudson and Dyson-Hudson 1980:15), these studies tended to ignored the complexity of pastoral livelihoods. Increasing research funds, which followed the Sahelian droughts in the 1970s, made a new set of pastoral studies possible about a wide range of pastoral societies across the world (Fratkin 1997), and each decade has since seen a new collected work on pastoralism (Chatty 2006)—progressively rejecting the boundedness and stability of local systems, to recognise instead the enormous variability, heterogeneity and flexibility which characterise pastoral livelihoods.

As scholarship on pastoralism evolved, it critically engaged with recurrent myths about pastoralism found among policymakers and development/humanitarian agents. For example a recurrent myth, as highlighted by Chatty (2006:1), is that pastoralists are a "throw-back to a past era", or lazy and engaging in irrational economic practices (cf. discussion in McCabe 1994). Other myths state that pastoralists are violent, warlike, and lawless, as pointed by Dyson-Hudson and Dyson-Hudson (1980) and McDonell (2016). It is finally believed that, disconnected from global, or even national, economies, pastoralists need to settle to benefit from service delivery and more generally "modernise" (cf. discussion in Chatty 2007).

Attempts to overcome the shortcomings of these old myths in the literature have concentrated around the identification of a better definition of what is meant by the term "pastoralism". There is certainly something intuitive about the definition of pastoralism, as if it does not require further specification (cf. discussion in Khazanov 1994), but also problematic (Rodgers 2018), and vaguely used in common language.

The most general understanding of pastoralism is its association with mobile people and their relationship with grazing and browsing animals. Popular conceptions generally focus on an ideal type of "pure pastoralism" (Homewood 2008) living a nomadic existence and subsisting

entirely on the produce of their herds for food (milk, meat, blood), raw materials (hides, skin, hair, horns), travel, traction, recreation, and ritual life (Salzman 2004).

Pastoral systems are classified in a number of ways. One obvious difference among the many pastoral societies is the animals they raise (sheep, goats, cattle, yaks, llama, reindeers, horses, camels, and others) and the composition of their herds (mono-specialised or multi-specialised).

Another way to classify pastoralists is in terms of their geographical distribution, the physical environment they occupy, and the vegetation resources (and water) they depend on—from which emerges a sub-narrative about coping with an extreme and uncontrollable environment and enduring harsh living conditions.

Other criteria of classification is by the management system used and the degree of mobility (nomadic, transhumant, semi-nomadic, semi-sedentary, enclosed), often linked with different production systems or land-use in terms of degree of reliance on agriculture (from subsistence to commercial farming) or dependence on livestock (50% of total household income). Ideas of "pure pastoralism", as something markedly distinct from hunting, gathering, farming, or fishing, emerge from this categorisation—from which pastoralism is deduced "by subtraction": not being sedentary, not being involved with markets, not farming (Krätli and Swift 2014:3).

Many attempts at categorisation have been critiqued as "an intellectually sterile enterprise" (Dyson-Hudson and Dyson-Hudson 1980:18) and perhaps they are also complicit in the perpetuation of some old stances about pastoralism. The boundedness of pastoral systems to specific environments or stock composition overlooks the many flows of ideas, people, practices, and resources beyond micro-ecological niches and beyond the mere biological needs of livestock. The characterisation of herders as resource users overlooks the importance of identities beyond pastures and is an insufficient explanation of pastoralist work and household decision-making around accessing education, material aspirations, and political participation (Ahearn-Ligham 2016:17). Categorisation by degrees of mobility or types of occupation is an oversimplification of a livelihood to one factor (ecology, economy, or culture), and ignores contingent and shifting responses and complex patterns of mobility taking place (Salzman 2004).

These reflections characterise a shift in the pastoralism scholarship, taking place over the last 30-40 years. Definitions of pastoralism are now built around the complex interactions among people, animals, and various socio-economic environments, and around the development of flexible management strategies and economic occupations as adaptable to a variable environment and relying on temporary responses to changing problems and opportunities (Krätli and Swift 2014). Pastoralism is now seen more "fluidly" (Homewood 2008) as a "complex interacting system" (Dyson-Hudson and Dyson-Hudson 1980:35) considering a wide range of activities related to livestock as well as various linkages with other livelihoods (from rural to urban) in a multi-resource economy as part of a "total culture of pastoralism" (Chatty 1996:179) and within broader trajectories of development and change.

The emerging theoretical framework for the study of pastoralism and their environments (drylands), is recently extending outside scholarly circles as reflected, for example, in the recent African Union "Policy Framework for Pastoralism in Africa" (AU 2010) or in the IFAD "Toolkit: Engaging with pastoralists—a holistic development approach" (IFAD 2018), but it is still far from being mainstream. Work is still needed to rescue pastoralism and drylands from the stereotypes, myths, and general preconceptions that have long prevailed and to challenge the dominant and persistent "development narrative".

Cross-debate and the definition of three "pastoral problems"

At the nexus of these fields of study (resilience, drylands, pastoralism)—as introduced at length in Chap.1—there remains a dominant "development narrative" which casts pastoralism as backward, irrational, and wasteful, taking place in fragile, degraded, and unproductive environments; and creates a catalogue of "problems"—to use an expression proposed by Chatty (1972, 2013)—which I refer to as perceived "pastoral problems" and analyse in terms of three components of people's lives (landscape, lifescape, and bodyscape)[7]:

1. Pastoral environments depicted as a static nothingness, with scarce resources and remote location (landscape);
2. Pastoral mobility and livelihood perceived as a liability (lifescape);

[7] With broad reference to Appadurai's use of the suffix "scape" to indicate a perspectival approach, different from each vantage point as influenced by the situatedness of each actor, and give an idea of the importance of being-in (Appadurai 1990).

3. Pastoral risks (conflict, diseases, food insecurity), (bodyscape).

Referring to Chap.1 for a detailed discussion of these three "problems", this thesis aims to provide ethnographic accounts of these aspects emerging from existing development literature about resilience, drylands, and pastoralism from a different angle than that of outsider technocrats or specialists.

In the discussion of these three pastoral problems of resilience, in fact, perspectives of "outsiders" tend to dominate. Characterised by high levels of "scientism", these problems are discussed through linear models of "progress" and "modernisation" and are "crisis biased". The crisis is used as the only element to explain peoples' and spaces' behaviours, in so doing forgetting that people continue to live, build relationships, and trade. Furthermore, they ignore the relevance of the everyday for the understanding of peoples' resilience. Finally, all three pastoral problems highlight mobility in negative terms: as a disturbing element of variability and fragility of the environment, posing problems for prosperity, production, and advancement of modernity, and, ultimately, creating situations of insecurity.

In this thesis I move beyond, challenge, and expand on existing literature on resilience, drylands, and pastoralism through an engagement with the lived experiences of Turkana herders over a prolonged period of time to explore local meanings of resilience. I use the case of Turkana herders to delve into the everyday dimension of resilience with respect to the main problems of interest in the development literature to unravel a different possibility for drylands, a different understanding, and a different way of seeing drylands and their inhabitants.

Where is this research based?

This research is based on 14 months of multi-sited ethnographic research[8] in Turkana County, one of the 29 Arid and Semi-Arid counties in Kenya (ASALs). Turkana is frequently described as "inhospitable", "impossible", or "unforgiving". Kenyans talk about Turkana as "the desert" and I have often met surprise and concern in people's faces when I mentioned about my fieldwork in Turkana. Known to be "the cradle of humankind", Turkana is one of the

[8] Cf. Chap.3 on research methodologies and methods.

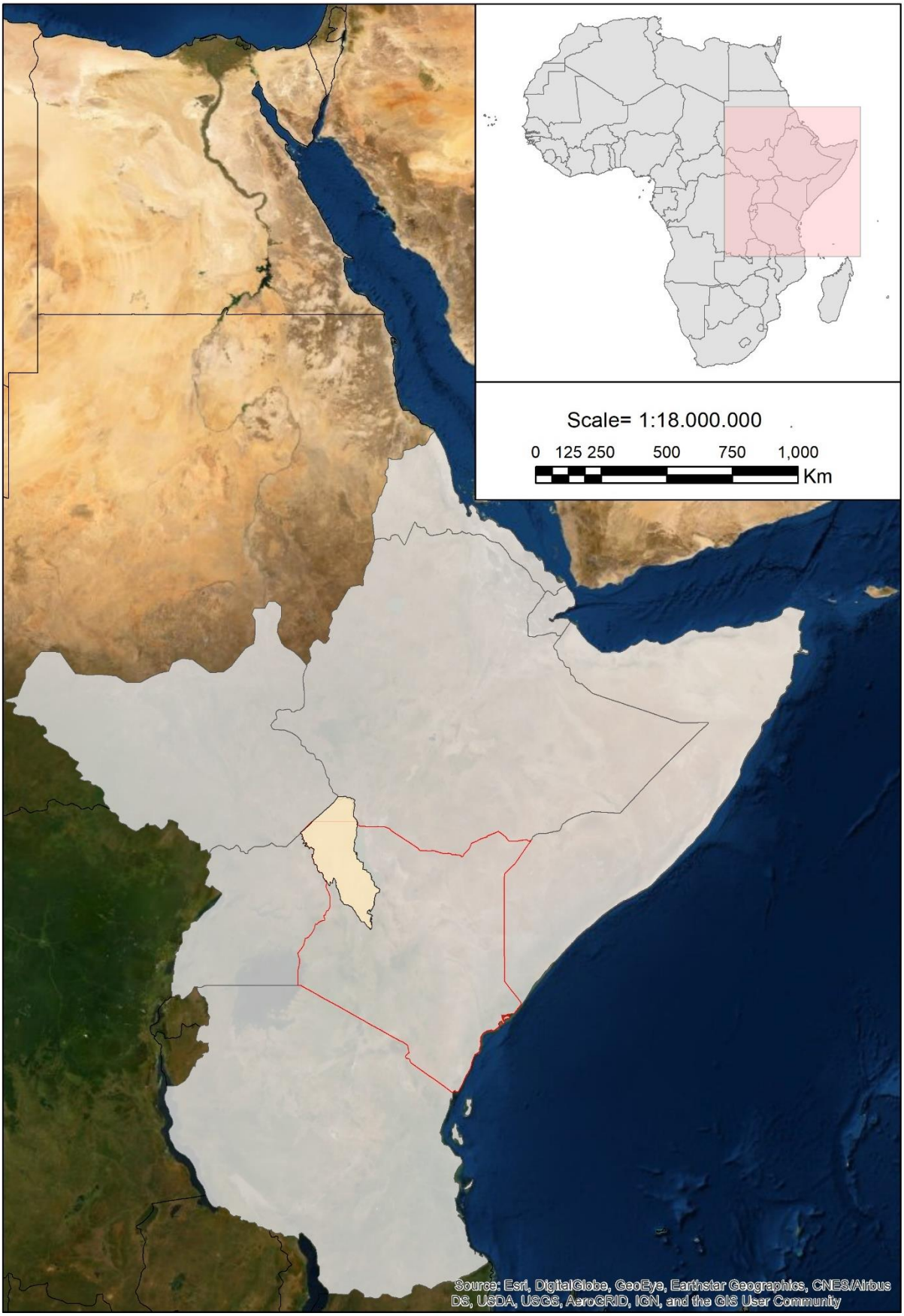
world's richest archaeological sites and at the same time one of the poorest and harshest environments in the world, hammered by conflicts and droughts (Hatcher 2014).

Covering an area of 77,000km^2, including water bodies, it is the most north-western county in Kenya, bordered by Uganda to the west, South Sudan and Ethiopia to the north and north-east, and Lake Turkana to the east. Neighbouring counties in Kenya are Marsabit County to the east, on the opposite shores of the lake, Samburu County to the south-east, Baringo and West Pokot County to the south (cf. map below).

Though most of the county consists of low plains, it nonetheless shows a varied landscape. In the North, mountain ranges and escarpments mark the borders with South Sudan and Ethiopia, while hills and plains spread wide in the South. Valleys are carved by seasonal rivers and dry-creeks and by two major perennial rivers (Turkwel and Kerio). Lake Turkana, a “jade sea” and the biggest desert lake in the world, lies long—like a teardrop—in the east of the county. Fishing is a major activity around the lake shores which have always been a site of refuge at times of hunger and scarcity for the otherwise dominantly pastoral population which inhabits Turkana.

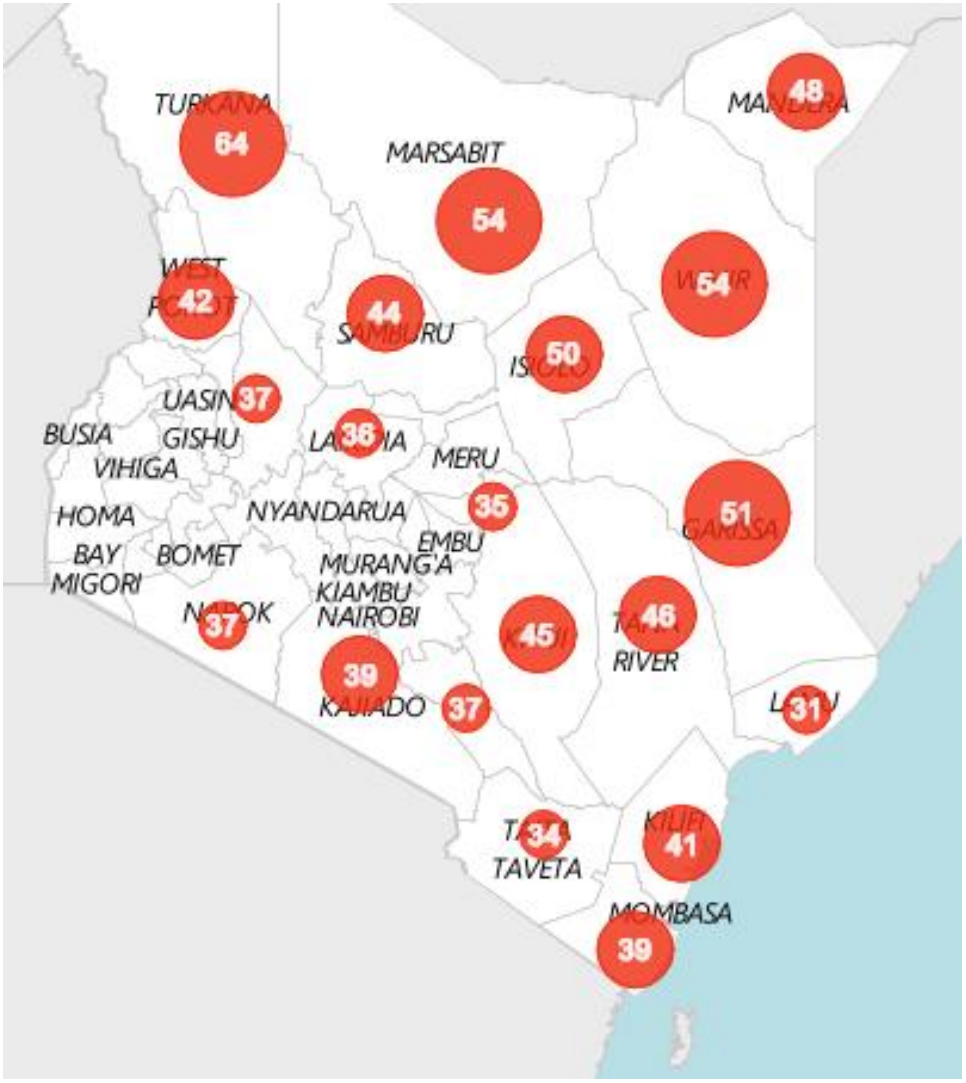
Barren places like Turkana are classified as ASAL (Pratt and Gwynne 1977), subject to extreme climatic variability and uncertainty, and commonly defined as “drought-driven systems” (Ellis and Swift 1988). Turkana is located in a marginalised and isolated area, far from major cities and administrative centres. From an outsider’s perspective, Turkana is considered underdeveloped due to very poor infrastructure, lack of basic services, and the limited number of natural resources (Boulton 2012). According to the Central Bureau of Statistics, Turkana is the county with the highest poverty rate in Kenya (95% of population live below the poverty line, while the national average is 53%). In addition, conflicts caused by ineffective governance, raids, competition over pasture and water, land fragmentation, and climate change are considered further barriers to security and development.

Figure 3 Map of fieldwork region



More recently, Turkana is attracting attention from external private investors as well as renewed national and county government interests. Hatcher reports a growing feeling among Nairobi citizens that Turkana “will be one of the best counties in terms of investment and development" (Hatcher 2014:37). Hopes of development are indeed rising from expanding refugee operations in Kakuma and Kalobeyei camps; the construction of a mega-dam and large scale commercial irrigation schemes along the Omo River upstream of Lake Turkana; the reform of land tenure under Kenya’s 2010 new Constitution; the discovery of one of the biggest aquifers in the world, and the nascent oil industry in the south of Turkana. Nonetheless, those who promote these interventions are rarely familiar with the Turkana people, their livelihoods, challenges, and ways to respond. This creates the risk of further marginalisation, polarisation, and new conditions of insecurity (cf. Rodgers 2018, Betti 2010).

Figure 4 Resilience investments tracking tool (year 2015-16)



UNOCHA-EA (East Africa)—Last accessed online: October 2016.

On the basis of this contextual background, Turkana has long been a place for "resilience-making", attracting the interest of international agencies towards "building resilience", especially following the catastrophic drought that hit the Horn of Africa (HoA) in 2010-11 (cf. Chap.2). Under the IGAD mandate, the Drought Disaster Resilience Sustainability Initiative (IDDRSI) signed the beginning of the East Africa resilience agenda and used Turkana as first case study for their operations (cf. Chap.2).

Ever since, Turkana has received the largest number of resilience-labelled programmes and funds in Kenya, as reported by the resilience investment tracker-tool—an interactive platform which aimed at mapping resilience interventions in the HoA and was still operational at the time of my fieldwork (cf. Fig.4), which largely influenced the choice of my field site.

Motivations, goals, and research question

I have become interested in resilience gradually, through the course of my studies and work experiences. Initially, in a rural village in southern Malawi where I was studying means of informal social protection. My undergraduate thesis became a story of complex forms of solidarity and struggles in response to emerging problems in the everyday lives of my host families. I then worked for an international organisation in Somalia supporting the development of a Resilience Index which was summarised in my master thesis and proposed as a diagnostic, evaluative, and policy tool. With my PhD, as explained in Chap.3, I intended to dig further into the meanings of resilience and its application in the development sector.

My initial motivation to do a PhD was to understand how different organisations were talking about resilience, making what claims, and how they were applying these ideas in their planning and practices. In the course of my degree, and especially since fieldwork, this interest was progressively tailored to the context of drylands and pastoralism and around the identification of the three "pastoral problems" described above. Noticing a general lack of empirical and experiential perspective in the literature on resilience from the point of view of the so-called beneficiaries, and given the scientific imperialism characterising the definition of the three "pastoral problems" as found in development and policy reports, I shifted my attention to the voices and sensibilities of pastoralists themselves.

As I started immersing myself in the exploration of these issues, what soon puzzled me was the wide discrepancy in opinions between academic and development/policy circles about

pastoral resilience. While the latter consistently identify pastoralism as one of the least resilient livelihoods, in dire need of external support (cf. for example Alinovi, D'Errico, et al. 2010), the former is about the fact that the "fundamental strength of these people is their adaptability, resilience, and resistance" (Chatty 2007:6).

Inevitably I found myself asking: why? How could there possibly be such divergent viewpoints? Was it a matter of definition, operationalisation, or verbalisation? Was it a problem of usage of a contentious notion and terminology? I gradually came to understand—as I found myself in the midst of fieldwork sharing goat milk and wild berries with my host families—that it was a matter of "being there", together with herders and on their terms.

While development practitioners and policy makers are well known not to spend much time with the communities they intend to support and to plan their interventions from the comforts of their offices in capital cities, pastoralism scholars, predominantly anthropologists (cf. above), on the other hand, invest a lot of time in building trust and rapport with their informants, often through long-term engagement in the field and experiential proximity to their hosts' lives. From this privileged position, scholars base their accounts of resilience among mobile pastoralists.

Nonetheless, to the extent of my knowledge, I have found no study in the pastoralism scholarship that explicitly aims at understanding meanings of resilience from the perspective of pastoralists themselves. Despite providing rich and detailed accounts of pastoral lives, greatly contributing to improvements in scholarship, herders' resilience is tested rather than described. In other words, a similar normative approach to resilience overrides empirical views for both development practitioners and scholars.

Aiming to fill this gap in scholarship, this thesis interrogates meanings of resilience from the perspective of Turkana herders in their everyday lives, and sets out to answer the following research questions:

* What can we understand about those components of "pastoral development" currently discussed in the international development regime under the label of resilience, by switching perspective and following pastoralists lived experiences? In particular:

- Landscape component: what does it mean to inhabit a desert? How do humans relate to their environment in making a living? How do they see their lived environment? How do they learn about their landscape and experience it? How do they represent and perceive it?
- Livelihood component: how is mobility represented, talked about, and perceived by Turkana herders? How is their mobility "acted out": in what directions, shapes and forms? And how does it explain pastoral livelihoods?
- Bodyscape component: how is vulnerability represented among Turkana herders? How is their identity imagined and performed? How do they interpret and engage in changes in the surrounding society?

* How does the new understanding of resilience emerging from this shift to a localised and experiential perspective relate to the contemporary ideas of resilience in policy, practice and scholarship: to what extent does it challenge, endorse or even revolutionise it?

To answer these questions, I rely on four empirical chapters which describe the perspective of Turkana herders on the three dimensions of resilience. In each empirical chapter, observations include what is seen by herders, what is learnt, known, represented, and what is perceived, imagined, and communicated for each dimension of resilience (landscape, lifescape, bodyscape), separately. These chapters come together shedding light on a more nuanced, grounded, and empirically informed account of resilience as per each of its operational dimensions.

In so doing, this thesis problematises generic notions of resilience which can be of little practical significance for development/humanitarian organisations unless contextualised to the situations in which they are applied. Touching upon one of the issues mentioned at the beginning of this introduction, about the fundamental lack of innovation in development practices when it comes to "building resilience", this thesis argues for a more empirically informed understanding of resilience in ever-changing contexts as the only possible way to avoid the risk of systematically proposing the same interventions and solutions to development questions.

I outline below more specifically how I address these issues and answer the main research questions of this study while also showing how I have structured this thesis.

Thesis roadmap

The ethnographic insights presented in each chapter of this thesis provide a different perspective on the three perceived "pastoral problems" from the eyes of Turkana herders.

I begin with an orientation of the existing development literature on the resilience of pastoral communities in drylands which hinges on the three "pastoral problems" and frames this study. Chap.1 starts by showing the expansion of resilience ideas in academic scholarship and how they migrated to the development/humanitarian sector and policy circles to become a "key political category of our time" (Neocleous 2013). Anchored to a notion of crisis as threatening the environment and people's livelihoods, and creating conditions of perpetual risk, I show that resilience is dominantly operationalised in the field of disaster planning, but its translation into policy remains challenging and ambiguous. I then examine its emergence and application in the context of drylands, the field of my study. I outline the evolution of pastoral development approaches towards the identification of pastoralists as the "vulnerable" social group, whose resilience needs enhancing. Drawing from secondary sources and development reports, I show how the premise of pastoralists' perceived lack of resilience ties back to the broader field of disaster-resilience and is linked to three main "pastoral problems": fragile/scarce/remote living environments, precarious livelihoods, and insecurities (conflicts/diseases/food insecurity). In so doing, I identify gaps in this literature and show some of its shortcomings which I attribute to the rushed and at times uncritical adoption of the term by development/policy actors. In particular, I highlight a set of conceptual and empirical gaps which this thesis aims to overcome by looking beyond the "shadow of the crisis", for which resilience operates exclusively as a "discourse of survival" (Jasanoff 2008), and searching for "constructivist views" of resilience by using peoples' everyday lived experiences (Brown 2015) to build a more nuanced and grounded understanding of resilience.

Chap.2 provides a brief introduction of Turkana County covering its main features and the development/humanitarian landscape which informs this study. In particular, I show the rise of the East Africa Resilience Agenda after the Horn of Africa crisis in 2010-11 and how this is defined in the Kenyan policy framework. I show that, despite a renewed understanding of drylands' potential after more than 90 years of political marginalisation, this framework ultimately reiterates the same policy practices and interventions. Bringing some specific examples from the application of the resilience agenda in Turkana County, this seems to be

promoting “business as usual” while also exhibiting a limited understanding of resilience narrowed to tangible aspects of peoples’ lives: their assets, their financial capitals, the physical availability of services, and the like. The chapter concludes by reflecting on the seeming unpreparedness of the international community when another drought struck in 2017, after all those years of resilience interventions put in practice since 2011. Not aiming to provide an evaluation of specific resilience interventions, I nonetheless urge us to reflect on what may have gone wrong and ponder on whether something is lacking in the current understanding of resilience or the way it is treated programmatically—a reflection which opens the questions that my study addresses.

Before delving into the four empirical chapters which form the body of this thesis, Chap.3 illustrates approaches, research methods, and fieldwork experiences which guided my investigations. I begin by showing the methodological itinerary of this study. Drawing from 14 months of multi-sited field research, I followed what I called a “nomadic approach to research” through a gradual shift towards ethnographic and critical mobility approaches. While drawing on a composite set of research tools, I show how these needed to be progressively tailored to the various field sites and to evolving research objectives. The iterative process of research continued into the analysis and writing phase. Based on grounded, inductive, and interpretative theories of data analysis (Geertz 1973; Glaser and Strauss 1967), I started a process of mental-mapping, coding and re-coding. While starting to write-up and letting the story of this thesis emerge, I realised it was a story of mobility. Mobility emerged as *the* overarching analytical lens, as the comprehensive theme, and I thus decided to make mobility also my approach to writing. The four empirical chapters unfold along a reconstructed journey through Turkana which aims to bring the reader phenomenologically closer to the pastoral everyday life in the desert and to an understanding of resilience from within. I conclude Chap.3 by presenting some of the challenges and ethical concerns I faced during fieldwork as well as potential limitations of this study which, despite all efforts, nonetheless remain.

The four empirical chapters of this thesis are divided in two parts. Part (I)—“Seeing”—is a response to the first “pastoral problem” that emerged from the existing development literature, that of pastoral environments and their ecological variability. Whereas pastoralism scholars having shown that drylands’ variability is a structural feature of their behaviour, in the development literature and policymaking literature “environmental variability remains

fundamentally a problem" (Krätli and Schareika 2010). Part (I) aims to gain another perspective on the lived space of Turkana herders—different from what is generally portrayed by outsiders. Chap.4 and 5 reflect on the "experience of variability" and convey a different "way of seeing" drylands—from within. The chapters argue for "another spatiality", for a space which is not static but alive, and moves.

Contesting dominant outsiders' views of drylands, Chap.4—"The nomadism of space and the poetics of herding"—begins by proposing alternative literatures for a more nuanced understanding of the landscape from the perspective of those who inhabit it in their everyday lives. In particular, I draw on the anthropology and phenomenology of space, place, and landscape (Feld and Basso 1996; Merleau-Ponty 1945), from theories of relational geography (Murdoch 2006), and from mobile-space approaches (Retaillé and Walther 2011). By using these literatures, I contest three salient recurrent assumptions about drylands, namely that they are constituted by a static nothingness, that they have scarce resources, and that they are remote—at the fringes of development. Far from being a "static nothingness", space takes on life: earth and sky move, rivers and underground water; plants, seeds, and wind; livestock and wild animals; land soils and surfaces. Everything moves. Space is never motionless, plants generate movement, trees flex, rocks drift, and mountains glide, sand flows; "the world breathes" (Ingold 2000:21). The liveliness of space only emerges by enlarging the ecological scale of analysis moving beyond micro-zonal standard approaches to space, and by seeing the "coexisting heterogeneity" (Massey 2005) of multiple *spaces* and multiple *times* that make and unmake a territory. From this new acquired sight, vegetation resources would no longer appear as "scarce", but unevenly distributed across a vast territory, and mobile as they grow, senesce, and flower again in different places at different times, just as water does, in co-evolution with the movement of human and non-human inhabitants, opening important questions of accessibility. Knowledge about the lived space is acquired by moving across it, and it is encoded in the environment through beliefs, amulets, and ritual life. In this way, the environment becomes available also in symbolic terms—perceptually—and its "remoteness" acquires wider meanings beyond mere distance from urban centres. From this reconstruction of the environment as seen, experienced, and perceived by Turkana herders, new insights and interpretations of space emerge, making resilience a matter of perspective—a quest of sight; encouraging the questions of: whose environment?

Chap.5—"Clotting nomadic spaces"—extends the analysis of the environment beyond its socio-ecological dimensions to also consider its inseparable social, economic, and political components. The pastoralist scholarship greatly contributed to the understanding of drylands variability, but this remains somehow confined to environmental features; while I argue that from the perspective of Turkana herders everything is uncertain, variable, and moving: people met on the way; vehicles passing through dirt roads; number of charcoal sacks which will be bought; development programmes which are funded, delayed, piloted, failed, expanded; boreholes drilling, boreholes desiccation and new drilling in different sites, and food distributions. Seen as additional resources from which to gain a living (like pasture, water, and rain), Turkana herders respond to socio-economic and political fluctuations in society in the same way they respond to the fluctuations of the environment: by moving, building and unbuilding their lived space as, for example, shown by the creation of villages and small settlements "popping-up" along improved roads and telecommunication infrastructures. Inspired by the phenomenological literature of place-making (Heidegger 1971) and by the literature of cities that has taken up the framework of the body to explain city transformations (de Certeau 1985), Chap.5 looks at the spatial practices which make and unmake, form and shape minor centres where nomadic pastoralists are believed to settle. The emerging picture of place-making, contests the view of two separate spaces (settled and nomadic), focusing instead on spaces of mobility, connections and what I term "pulsations". In the process of creating these places, the chapter shows the rise of a new model of space use, new types of mobility as well as a new process of "enskillment" towards the creation of complementary economies centred around cash and aid. Resilience lays in the mobility of space as opposed to a clotted space in which expectations from development transform into frustrations (and worse) and nothing moves.

Part (II)—"Navigating variabilities"—is a response to the two remaining "pastoral problems", that of pastoral livelihoods perceived as a liability, and that of pastoral risks, focussing on issues of food insecurity. It conveys a different way to understand daily life in drylands not as a struggle for existence nor in constant quest for food, but in terms of "navigation". Asking what people do to respond to the mobility of their lived space, and drawing from the framework of "navigation" proposed by Vigh (2006) as a social practice which entails movement through, within, and along an environment which is itself in motion—as an effort to gain directionality—I argue that mobility is possibly the only response to mobility

(tautological but not always obvious). Mobility emerges as "something people do"—a quality of their behaviour, of their understanding of space, part of their decision-making, and expression of their motivations, aspirations, and identities.

Chap.6—"Practices of mobility"—opens part (II) by showing how various forms of mobility play out in the everyday of pastoral life in rural Turkana. It revisits a general understanding of pastoral livelihoods as ends-and-output oriented, challenging their "boxy" representation and restoring a more fluid approach to lifeways. It starts by explaining how mobility is perceived and discursively represented by Turkana herders. In so doing, it reveals a tension between aspired "immobility" (being settled and having a permanent home) and the everyday practices of mobility which nonetheless shape quotidian life and the constructed lifeworld in terms of metaphors, norms, and customs. It then shows the "navigation skills" employed to cross multiple environments and engage with multiple actors. I do so by following the "lines" (Ingold 2007) Turkana herders create through their movement across environmental, social, and economic domains as contingent responses to the "situational" or "immediate" surrounding. Following all lines traced by Turkana herders, it is possible to exit the livelihoods' "boxes and arrows" of the conventional Sustainable Livelihood Approach (SLA), employed by development and humanitarian actors, to gain a wider view of a "livelihood-net" of experiences and movements across multiple domains. A "livelihood-net" approach shows livelihoods in their relationality, disrupting labels and categories and letting people move freely across a moving environment. Resilience becomes motion within motion, laying in the capacity to be mobile, navigating complex variabilities, and crossing borders created by acts of labelling, imposed on human groups by outsiders.

Chap.7—"On food and no-food (lack of)"—extends the analysis of Turkana herders' navigation skills beyond the contextual everyday or the "situational" (Vigh 2006), to also encompass a navigation of the "social imaginary" of the self, as opposed to the other, and as expression of coexisting multiple cultural environments. It uses the analytical lens of food security to understand two different social worlds, that of Turkana herders and that of town dwellers, from the perspective of my hosts' families who portrayed a flipped narrative of vulnerability. The image of food-insecure herders, generally portrayed by development actors, is in fact replaced by one of ecological-situatedness, endurance, and capacity to "stay-without"; whereas town dwellers are seen as vulnerable to the lack of food. After reviewing traits of

these two opposed social worlds, from the standpoint of Turkana herders, around diet, fashion, and other convivial habits, I explore how these constructed identities are nonetheless malleable, polythetic, and fluid. Turkana herders have acquired the skills to navigate the social world of their urban counterparts as reproduced in their imagination, by means of imitation, appropriation, and adaptation—by means of "mobile identities"—and expression of "cultural resilience". Despite the growing emphasis in the resilience scholarship to integrate human and natural components in people's lives, the former is systematically lacking in resilience accounts by outsiders, especially for what concerns cultural traits of belonging and identity. In contrast, in Chap.7, I argue that solidarity (feeling part of a group) is a crucial aspect of my hosts' lives as well as their capacity to respond to changes in society by means of what I came to see as "mobile identities" and defined as a tool of "inner-resilience".

Together the four empirical chapters of this thesis are intended to challenge dominant views of resilience as applied to the context of drylands. They contribute to enhance our understanding of the lived space (landscape), of the everyday livelihoods (lifescape), and of issues of food insecurity (bodyscape) from a different perspective—that of Turkana herders themselves. As such, they could also stand alone as a significant exploration of the three "pastoral problems" separately. Altogether, however, they urge—in the words of Stafford Smith—to "find a positive narrative for the drylands" (2016:557).

Some final disclaimers for the reader: it is not my intention to portray pastoralists as a stereotyped category of persons hiding differences and heterogeneity—even when more generically referring to "Turkana herders". Additionally, the herder is also stereotypically imagined as a man, especially in a culture of pride, strength, and endurance. Although gender is not the primary variable of analysis in this study [9], I would like the reader to remember that women are herders too. Apart from long-range pastoralism, women are actively involved in herding, protecting their house and herd, and training the novel herder. Herding is a complex activity that involves the entire household. Gender plays a strong role in pastoral societies mainly in terms of complementarity of decision-making and reciprocity of tasks. I henceforth chose to use female prepositions throughout the thesis to help the reader also envision women while exploring desertscapes and pastoral livelihoods. Also, being a woman myself and being aware of this bias (my thin body, lack of husband and especially lack of children

[9] Something which I hope I will be able to follow up in a future project on women herders.

made people see me as a young girl), I want in this way to remind the reader that I witnessed what I was allowed to see as a *mzungu* (white) "young girl".

Thesis contributions: why is this important?

Through a review of the lived experiences of Turkana herders, this thesis elucidates mobility as an integral part of everyday life in drylands (and possibly everywhere). Mobility breaks narrow conceptions of space and time. Mobility awakens a flat understanding of the environment and lived space. Mobility disrupts rigid categories which imprison people's lives and identities. The biggest contribution of this thesis is not only to give renewed value to mobility, but also to propose mobility as part of the solution to each "pastoral problem", as part of people's resilience, and as *the* analytical lens through which to study everyday forms of resilience. The central argument is therefore that mobility is crucial. Mobility holds ancient meanings, and at the same time it is extremely modern—making this study particularly relevant—and has always been resisted. Nowadays, we live in a world of tireless movements ranging from desperate international migrations to new forms of international professionalism which want us "on the move". However, there still is great political and "infrastructural" resistance, expressed through narratives and practices which prefer fixity, settlement, controlled migration, regulated movement, fences and borders to new forms of mobility and nomadism. That is—there is a paradox within modern societies that want us still but oblige us to move. My hopes are that by "seeing like the herder" and by broadening our understanding of human and spatial mobilities, it may ultimately help understand this paradox and perhaps take a position in letting people and places flow unconstrained.

This study also contributes to the development of a different narrative for drylands and their inhabitants. Three important insights are offered, further elaborated in the thesis conclusion:

1. Scientific contribution: it allows a different view on drylands through the eyes of those who see, experience, and perceive these environments in their everyday;
2. Policy contribution: it indirectly addresses policy failures, asks what reasons could explain these failures, and provides insights for a different "development narrative";
3. Academic contribution: it supports a growing academic interest towards Turkana following recent development plans (devolution, refugee camp, and oil discovery) from a rarely considered point of view—that of Turkana herders.

Chapter 1 ~

Resilience, drylands, pastoralism



Estee Lauder advertisement for "resilience lift" crème product. Accessed online: May 2015.

Introduction

One night, towards the end of my second field visit to Kambi Lore, one of my research sites[10], I realised I should stop asking direct questions about actual meanings and definitions of resilience. Those questions were not providing me with innovative answers. I realised I should have instead started living, working, resting, playing, and hearing stories as much as my untrained body would allow—there where shade is only found in the shadows of clouds.

That night, Enyes, one of my research assistants[11], was telling me a story from his childhood. He comes from Turkana west, where the plains meet the mountains. He remembered playing with his friends, running and following shadows of clouds. Those who managed to stay protected from sun rays under the clouds' shades the longest, were the winners of the game. A game for kids. A game for kids played at times when trees did not have a crown. A game for kids, when there were no bird traps to set. When there was no water to waste. No other games to play but running away from the sun. It must have been a time of drought.

While Enyes was telling me this story, I understood that he was speaking of the form of resilience I was researching. It is a story of movement, running bodies, and drifting clouds. It is a story of transformation of the harsh reality of a drought into a game. It is a story of attention to nature and environment. It is a story of a group of friends supporting each other. And it is a story of games and laughter. This is the everyday form of resilience I want to tell in this thesis, which is generally forgotten in the scholarship.

The present chapter lays the groundwork for my study. I start by showing roots of resilience ideas into various disciplines and how they grew into the academic and scientific literature (sec.1.1), and beyond. Ideas of resilience are, in fact, tireless. They travel, and move, and shift. They are nomadic.

Resilience is nowadays a daily topic of broadcasting programmes about people's battles to succeed despite undesirable hardship and traumas. It is part of the international banking language and protection of finance systems. It is voiced during television programmes about strategies of football teams, management of their supporters, and the architecture of their stadiums. There are Facebook groups, musical bands, yoga retreats, self-help groups,

[10] On field sites, cf. Chap.3.
[11] On research assistants, cf. Chap.3.

"resilient cities", "resilient crops", "resilient dreams", and a countless number of initiatives, events, workshops—all designed around ideas of resilience.

In this chapter I focus on the translations of ideas of resilience into the language of development/ humanitarian organisations (sec.1.2). I trace the why*s* and wherefores of resilience's growing appeal to the international community from the 1980s onwards, opening what I term a "resilience-turn" in development making. I present its contested meanings and shared features. I argue that in the aid sector, its dominant operationalisation lies in the field of disaster planning developed around three main areas of interest: environment, livelihoods, and bodies, which I analyse and discuss in terms of landscape, lifescape, and bodyscape.

Narrowing my focus for the purpose of this research, I illustrate how ideas of resilience within the development/humanitarian sector are then applied in the context of drylands (sec.1.3). In this context, an outsider's perspective on resilience dominates, framing pastoralists as "vulnerable" social groups, whose resilience needs enhancing. Their lack of resilience is arguably tied to the trifold approach to crises which dominates the development/humanitarian sector (environment/livelihoods/bodies), defining three major pastoral "problems" of intervention, namely a fragile/instable, scarce, and remote environment; a mobile lifestyle and livelihood perceived as a liability; and a recurrent state of insecurity threatening people's own lives—perspectives which largely contradict ethnographic evidence I have gathered during fieldwork.

Henceforth, Chap.1 asks whether we should discard such a contested notion of resilience, or instead "own" it, adapt it, and base it on observed realities on the ground. In the latter case, I urge to answer the question: What can we understand about those components of "pastoral development" currently discussed in the international development regime under the label of resilience, by switching perspective and following pastoralists lived experiences?[12]

I conclude by challenging the ways resilience is adopted by the development-machine in drylands, and highlighting gaps and challenges emerged from the "resilience-turn". Gaps and challenges that I aim to address in the four empirical chapters which form the body of this thesis.

[12] On research questions cf. thesis introduction.

1.1 Background of a contested notion: the genesis of the ideas of resilience



Front and back—family portrait. Lobei/Loima. February 2016.



Ideas of resilience are many, and almost everywhere. Resilience is a multiple concept—often said to be multifaceted, multidimensional, multiscale, and multi-layered; and many are the corresponding definitions. Debates about resilience opened a stage of clashes: resilience represents an approach which challenges dominant policy making and at the same time is meaningless jargon; resilience puts back people at the centre of discussion and at the same time maintains structures of power; resilience opens new opportunities for development from crises and at the same time it reproduces neoliberal agendas of self-responsibility; resilience encourages changes and at the same time promotes *status quo*; resilience makes use of metrics to be measurable, scalable and comparable and, at the same time, metrics completely "miss the point" (Levine 2014).

Indeed, there is little agreement in the scholarship. One of the few shared acknowledgments is that resilience is not a new concept (Davoudi et al. 2012), but it is rooted in various fields of scientific research. In this section I introduce the etymological, scientific, and academic base of such contested notion which moved across various disciplines especially since the 1970s when an upward trend in scientific publications was observed (Janssen et al. 2006; Xu and Marinova 2013).

*

Its etymological ground lies in Latin *resilio*—to jump back (Klein, Nicholls, and Thomalla 2003)—but its meaning has since expanded widely.[13]

In physics, it denotes the capacity of "engineering systems" such as bridges, buildings, and general infrastructure to absorb energy under pressure (Bruneau and Reinhorn 2006); or "how fast displaced variables return towards their equilibrium following a perturbation" (Pimm 1984). Referred to as "engineering resilience" (Holling 1996), it indicates a set of mechanical properties of materials (elasticity, efficiency, and predictability) to ensure their capacity to return to a pre-existent equilibrium and original shape after being stretched, pressed, or flexed (Mallet 1856; Tredgold 1818). These early definitions of resilience have generated the "bouncing-back" analogy often referred to in the literature.

[13] Given the number and diversity of publications, a full review is beyond the scope of this study for which I refer to Alexander 2013; de Bruijne, Boin, and van Eeten 2010; Manyena 2006; Martin-Breen and Anderies 2011.

In psychology, resilience entails a positive outcome (employment, mental health, lawful behaviour) or adaptation to disturbances such as adversity or trauma experienced during lifetime (Masten, Best, and Garmezy 1990). In this field, resilience was initially defined as a personal trait. Afterwards, resilience was defined by external conditions (family, social environment, etc.) which facilitate the process of overcoming trauma (Ungar 2004). And finally, research has recently looked at how to create preconditions for resilience through preventive interventions and promoting competence and wellbeing (Luthar and Cicchetti 2000; Masten et al. 1999). Despite ideas of bouncing to a state of "normality" still being dominant, transitions to a better quality of life have started to be considered and resilience is also framed as a possibility for the flourishing of something not only new but also better than previous states.

In ecology, resilience was first used in the field of population studies of interacting predators and prey in relation to ecological stability theory (Holling 1961), and subsequently applied to several other field-based studies ranging from boreal forest dynamics (Ludwig, Jones, and Holling 1978), grasslands (Walker, Langridge, and McFarlane 1997), rangelands (Walker et al. 1981) and savannas (Ellis and Swift 1988), among others.

Until the 1970s, ecology science was built on ideas of ecological communities' successions towards a stable climax/equilibrium (Clements 1916) which was challenged by the resilience thinking (Folke 2006; Jerneck and Olsson 2008). Holling developed a theory of complex adaptation for which ecosystems are complex systems characterised by non-linear dynamics, thresholds (shifting or multiple boundaries), uncertainty, and surprise (Folke et al. 2004). Against stability (or speed of return to normal conditions), resilience is presented as the persistence of relationships within an ecosystem (Holling 1973, 1986). A return to a stable state is not only irrelevant but also impossible since there is no equilibrium state; rather, there are multiple basins of attraction across which systems fluctuate and flip-over. In ecology, thus, "the emphasis is not on reaching or maintaining a certain end point or terminal condition, but on staying 'in the game'" (Pickett, Cadenasso, and Grove 2004:373).

The application of ideas of resilience to human systems is more recent (Leslie and McCabe 2013). Adger, one of the most prominent scholars of social resilience, treated it as the ability of human communities to withstand shocks to their social structure arising from environmental stresses, or social, economic, political upheaval (2000). Broadly defined,

resilience is used in various disciplines of the social sciences in the most disparate ways[14] but all largely referring to resilience as a metaphor to indicate the capacities of businesses/institutions/communities/individuals to respond to adversity (Bahadur, Ibrahim, and Tanner 2010; Goode et al. 2017; Norris et al. 2008).

With time and further research, human and natural systems could no longer be treated separately because they are mutually co-implicated under the notion of Socio-Ecological-Systems (SESs) (Folke et al. 2010; Glaser et al. 2008; Levin et al. 1998). Berkes and colleagues formalised this shift in paradigm and coined the expression "socio-ecological resilience" (2003), defined as "the magnitude of disturbance that can be absorbed before a system changes to a radically different state, as well as the capacity to self-organise and the capacity for adaptation to emerging circumstances" (Adger 2006:268). This shift marked a further expansion of resilience studies toward a more explicit concern with flexibility and transformative abilities (Pelling 2011; Pelling, O'Brien, and Matyas 2015). Resilience is no longer about stable equilibria, nor about persistency of ecosystems' relations or societal identities; rather, resilience is about the opportunities that disturbances open (Carpenter, Westley, and Turner 2005).

However, most scholars still distinguish between adaptation, transformation, and resilience as parallel systems' attributes (Béné et al. 2012). Hence, despite the contribution in bringing to light the role of change, this branch of literature reiterates resilience as one distinct attribute that governs system dynamics as something different from adaptation and transformation.

Resilience largely implies being persistent and able to maintain the same societal conditions or systemic relations. Thus, as discussed in the discussion section of this chapter, what underpins scientific traditions presented so far is a rather mechanistic expectation of systems' capacities to bounce back, in engineering/physics, and forth, in psychology, ecology and socio-ecology, to new temporarily stable basins of attraction, following disturbances. These disciplines end up expressing similar equilibristic views of resilience (Davoudi et al. 2012) presented with a technical and specialised vocabulary (Beltrama 2018).

[14] In economics, for example, resilience is associated with consumption/production activities and resource allocations to withstand market shocks. In political science it is used in relation to governance structures, laws, organisations to understand processes of internal change following institutional shocks.

With this brief excursus of the foundations of resilience thinking, I illustrated the multivocal nature of resilience portrayed by some as a "changing constellation of ideas" (Carpenter and Brock 2008:1).

Indeed, ideas of resilience have a long and rich history (Gallopín 2006)—some even said that "resilience is turning out to be a resilient concept" (Lélé 1998:249). I like the descriptive idea proposed by a few scholars of a "travelling" or "mobile" concept (Béné et al. 2014; Bracke 2016; Chandler and Coaffee 2015): moving between different disciplines and being constantly re-defined and further specified.

However, scholars are divided between those who see resilience as an empty concept, those who define it as a "bridging" or "umbrella" concept (Brown 2012; Davoudi et al. 2012), and those who instead prefer thinking of resilience as a "boundary object"[15] (Brand and Jax 2007), or a "polysemous concept" in that "its multiple meanings are distinguishable but related" (Tuggy 1993:273, quoted in Strunz 2012:113).

Undoubtedly, ideas of resilience have travelled to a considerable stretch from their original connotations and have somewhat been "lost in translation", especially since the term has entered the field of disasters—the realm of the humanitarian and development sector. The following section discusses this shift, starting by exploring why such a technical notion became extremely popular also in public and policy domains, and how it is most commonly used in those venues.

[15] Concepts that are loosely structured in common use and only obtain strong meaning in a particular context/field.

1.2 Development translations: resilience in the development/humanitarian sector



Focus Group, Resilience Assessment. DFID. Urum/Loima. January 2016.

Another agreed feature in the resilience scholarship, besides its long history, is its extension beyond academia. Resilience is now popular in the policy lexicon as a central paradigm in policies and strategies responding to global threats, ranging from natural security, to financial management, public health, economic development, or terrorism (Bracke 2016; Brown 2012; Cascio 2009; MacKinnon and Derickson 2013). Prominent in the whole development agenda, resilience has been framed as the ultimate objective of development (Folke et al. 2002) as well as the framework of intervention in the humanitarian sector (Béné et al. 2014; Levine and Mosel 2014). In this section, I introduce some of the factors which brought resilience to feature prominently in the mainstream aid discourse (Pain and Levine 2012), I present its salient traits, and implications for practice. In so doing, I show that despite the increasing number of theoretical debates, translation into practical interventions and policies remain challenging (Lind, Sabates-Wheeler, and Kohnstamm 2016).

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The convergence of several trends and factors determined the success of the language of resilience in the public arena. I highlight four principal factors: the rise of sustainability thinking, the emergence of relief-development continuum, the rise of the notion of "risk societies", and the growth of neoliberal thinking.

Framed as the "new sustainability" (Brown 2015), roots of resilience thinking can be found in the publication of the Bruntland Report (WCED 1987) and in the increased interests in global environmental issues in terms of development needs, conservation goals and global changes (Walker et al. 2016). Acknowledging that current ways of using and managing global resources are no longer compelling (Walker and Salt 2006), resilience frameworks reflect a dissatisfaction towards the capacity to meet future needs.

For what concern development and humanitarian programmes, similar dissatisfaction was reached when their effectiveness started being questioned in the early 1990s (Levine et al. 2012). The need to overcome the classical humanitarian/development divide emerged, favouring "relief-development continuum" approaches (Borton 1994; Longhurst 1994; Sollis 1994) which proposed resilience frameworks to push development practitioners to collaborate with aid workers and merge development with humanitarian assistance.

Proliferation of resilience is also linked with the idea that now we live in a "time of crisis" and with a feeling of growing insecurity (Chandler and Coaffee 2015). This view is rooted in the idea of "risk society" referring to the complexity and interdependency of today's crises as well as reduced trust in human ability to control uncertainty (Beck 1992 cited in Bracke 2016). As a result, there is a shift in responsibilities away from national and local governments towards individuals and communities who are counselled to be resilient, vigilant, and prepared (Bracke 2016; Scott-Smith 2018)—a symptomatic shift of the transition from liberalism to neoliberalism (Brassett, Croft, and Vaughan-Williams 2013:224).

Several scholars link the rise of resilience thinking with the hegemony of neoliberalism[16], through a language of preparedness, adaptation, and survivability (Duffield 2012). In line with neoliberal visions of state deregulation, reduced public interferences, and celebration of individual freedoms to make "right choices" to foster development and economic growth (Geiger and Pécoud 2010), resilience subjects are trained to accept and adapt to a world of endless risks (Bracke 2016).

The concomitant action of all these factors has contributed to changing the global policy arena in order to resort to a policy lexicon centred around resilience (Folkema, Ibrahim, and Wilkinson 2013; Scott-Smith 2018; Walker et al. 2016)—a phenomenon which can be framed as a "resilience-turn" in development-making.

In this new policy language, resilience is presented as a new framework that integrates humanitarian and development efforts (Newsham, Béné, and Davies 2013); a reform of aid bureaucracy that introduces flexibility into the scale of interventions and adaptability as conditions change (Brown 2015); or a specific technical objective of aid programmes—one that conflates several goals which are generally treated separately (humanitarian assistance, food security, economic development, among others) (Hoddinott 2014b).

The appropriation of the term in the development/humanitarian domain was mobilised by a wide range of heterogenous actors including several donors such as DFID (2011, 2014), USAID (2012, 2013), EU (2012b, 2012a, 2013, 2016), SIDA (2012), Rockefeller (2007), and OECD

[16] Cf. Bracke 2016; Duffield 2012; Mcmichael 2009; Neocleous 2013; Rigg and Oven 2015; Walker and Cooper 2011.

(2008, 2014)—some of which have even created specific funds for resilience programmes—as well as by leading institutions from the UN, WB, practitioners and international NGOs.

Regardless of (or because of) its popularity, there still is a general lack of understanding of what resilience means, how it should be promoted, applied, and operationalised in the sector (Brassett et al. 2013; Levine et al. 2012; Maxwell et al. 2014). Among the many definitions available today, it is however possible to identify some common features in the language adopted.

Firstly, resilience is generally used in reference to a "system" at different levels of aggregation: individuals, households, communities, organisations, states, etc. (Hoddinott 2014a). Programmes are generally developed around the identification of a set of characteristics which are deemed to *build* or *increase* resilience of the system (Brown 2015; Chandler and Coaffee 2015; Levine et al. 2012).[17] The goal is to present what a "resilient system" should look like by identifying what elements are critical for its resilience. These characteristics are ultimately used as proxy indicators for resilience measurement.

Secondly, resilience reflects a shift from outcome-oriented approaches towards process-oriented ones, focussing on abilities and capacities to withstand, respond to, recover from, or adapt to impending shocks (Béné et al. 2012; Manyena 2006; Mitchell and Harris 2012). Most recurrent definitions of resilience in the development and humanitarian sector concentrate on three main system capacities: absorptive, adaptive, and transformative—respectively defined as (1) the capacity to absorb disturbances by coping or buffering impacts of shocks; (2) the capacity to learn from experience, self-organise and adjust responses to changing conditions; and (3) the capacity to create fundamentally new systems when the existing ones are no longer viable in face of substantial alteration of external conditions.

[17] Bahadur, Ibrahim, and Tanner (2013), as one example of the many available, identify ten main characteristics of resilience systems: (1) a high level of diversity in groups performing different functions in an ecosystem, (2) effective governance and institutions which may enhance community cohesion, (3) the inevitable existence of uncertainty and change is accepted, (4) there is community involvement and the appropriation of local knowledge, (5) preparedness activities aim not at resisting change but preparing to live with it, (6) a high degree of social and economic equity exists in systems, (7) importance of social values, (8) non-equilibrium dynamics of a system are acknowledged, (9) continual and effective learning is important, and (10) a cross-scalar perspective of events and occurrences.

The ability to “bounce-back” in the aftermath of a shock is often emphasised (reductionist approach to resilience), or more recently also the capacity to “bounce-forward” (Manyena 2009; Manyena et al. 2011) or “bounce-back-better” (SFDRR 2015) (transformative approach). These definitions reflect two different world-visions. The most common one can be referred to a “reductionist” view of resilience for which resilience consists in returning/bouncing to prior states of equilibrium discretely defined after a shock. The second vision can instead be framed as “transformative”, implying that resilience can be achieved either by adapting to new situations through adjustment and negotiation, or also by “creatively” responding to new opportunities opened by a crisis.

Finally, resilience is about a shock, a disaster, a stressor, or a crisis. Often referred to as “disaster resilience”, it is increasingly mentioned in the development literature of crises and signed a new “disaster culture” centred around new key words: “sustainable and resilient communities”, “resilient livelihoods”, “building community resilience” (Manyena 2009).

The rise of a new disaster culture, tied to the idea of “risk society” discussed above, first occurred through the Yokohama Strategy (1994) which marked a shift from reaction (Disaster Management) to prevention (Disaster Risk Management, DRM, or Disaster Risk Reduction, DRR) (Manyena et al. 2011); and secondly at the World Conference on Disaster Reduction through the Hyogo Framework for Action (HFA) 2005-2015: “Building the Resilience of Nations and Communities to Disasters”—which highlighted the need to change the framework of intervention in disaster programming to something other than vulnerability, i.e. resilience (Manyena 2006); a goal which was re-launched in the post-2015 agenda at the World Conference on Disaster Risk Reduction (WCDRR) through the Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR).

In particular, HFA’s goal was to “substantially reduce disaster losses by 2015 by building the resilience of nations and communities to disaster”—which programmatically meant to reduce “loss in lives, and in the social, economic and environmental assets” when hazard-prone events strike (Tozier de La Poterie and Baudoin 2015). Following these guidelines, similar

objectives are found in the vast and disparate literature developed around "disaster resilience" which proposes several models[18], for several contexts[19], for most shocks[20].

All these approaches arguably share the view that shocks/disasters fundamentally threaten three basic aspects of people's lives: landscape (environment), lifescape (livelihoods), and bodyscape (safety).[21] Consequently, these become typical areas of operationalisation of resilience in the development/humanitarian sector:

1. Protection of the environment and provision of environmental services (landscape component)
2. Promotion of sustainable livelihoods and provision of productive assets (lifescape component)
3. Safety of bodies, provision of social protection services, and security nets (bodyscape component)

Regarding point 3, I refer to the framework of the bodyscape to indicate people's experience of and exposure to multiple layers of risks of interest for development actors (conflicts, diseases and food scarcity), adopting the "three bodies" metaphor by Scheper-Hughes and Lock (1987): 1) the individual body constitutes the layer of lived experience; 2) the social body encompasses the way the individual body mirrors two-way relations with society and culture; and 3) the politic body refers to control of bodies in behaviour, economy and aspirations.

The landscape/lifescape/bodyscape approach is indeed an attractive way to operationalise disaster resilience, firstly because it is reassuringly similar to what was designed and implemented even before the mastery of the resilience agenda. In other words, it means organisations can continue business as usual, except tweaking language and re-labelling past

[18] Networks (Norris et al. 2008); set of distinct capitals (Mayunga 2007); place-based models (Cutter et al. 2008); among others.
[19] Cities (Pelling 2003), coastal regions (Adger 2005), rural areas (McManus et al. 2012); among others.
[20] Earthquakes (Bruneau et al. 2003), bushfires (Paton and Tedim 2012), and hurricanes (Frazier et al. 2013); among others.
[21] Borrowing the Appadurai's notion of "scape" (Appadurai 1990) which serves to position the observer within, as a "media that envelop the observer" (Lorch 2002), and to reject objectively given relations to place, economy, and body (widely understood as encompassing individual, social, and politic dimensions).

interventions under the call for "building resilience" (Levine and Mosel 2014). This is not necessarily mischievous, but it does lead to ambiguous programming objectives.

For example, interventions addressed at building community resilience are ultimately operationalised in the same way as before (by digging boreholes). This renders the whole resilience agenda more programmatically manageable because agencies will not have to think of entirely new content of interventions, or design completely new approaches. Rather, it will be enough to adjust and conform their programmes to the new resilience language. Yet, this leads one to question whether resilience, in development and humanitarian discourses, is a new idea altogether.

A second appealing reason, especially for donors, for operationalising resilience as disaster risk reduction/management through the three outlined outcomes of interest (environment, livelihoods, bodies), is that these are ostensibly measurable. Debates about disaster resilience are dominated by disputes on how to measure, monitor, and evaluate resilience programmes, proposing different measurement models either based on characteristics or proxy indicators of resilience, specific implemented activities, or functionalities (Levin 2014). It goes beyond the scope of my discussion to review the copious number of metrics proposed[22], it is enough to note that the ability and methods to measure resilience are highly contested as it appears that no single tool, dataset, or model is fully appropriate.

Having traced how ideas of resilience travelled to the development and humanitarian sector to become a "key political category of our time" (Neocleous 2013), and having identified what this notion most commonly implies, and how it is operationalised in terms of DRM/DRR, I now turn to discuss how the "resilience-turn" in development-making is applied to the context of drylands, the field of my study.

[22] For reviews on resilience and measurement see: Schipper and Langston 2015; Winderl 2014.

1.3 Resilience in desertscapes



Food distribution. Urum/Loima. February 2016.

Drylands, the largest land category on earth, are managed as a problem. This is a longstanding sentiment. Since Aubreville coined the expression “desertification” (1949), and since the first United Nation Conference on Desertification (UNCOD) in 1977 following a severe multi-year drought in the Sahel (1968-1973), drylands are fundamentally presented as a source of concern and considered a waste of land-space.

Amplified within climate change debates, renewed attention to drylands has recently grown inside the development/humanitarian sector following years of donor fatigue. However, despite over 40 years of major revaluations of classical assumptions around the behaviour of drylands, these are still seen as inherently problematic while resilience rises as a new paradigm to resolve emerging issues. In a nutshell, drylands are seen by outsiders as under constant turmoil, they are remote, degraded, and hold little economic value. Drylands’ peoples are helpless, pursuing an anachronistic livelihood, struggling for their existence and in constant quest for food.

In this section I situate this debate within the evolution of ecological theories, while presenting the progression of pastoral development policies towards the emergence of a resilience narrative in the drylands. In so doing, I present dominant views on drylands and on their inhabitants which, notwithstanding substantial turns in the scholarly debate, remain anchored to “old myths”. In particular, the emergence of resilience programming in drylands ties back to broader trends in the development sector (cf. sec.1.2) and narrowly concentrates around the identification of three main “pastoral problems” (environment, livelihoods, bodies).

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> “It is the implied grandeur and emptiness of the natural landscape that distinguishes deserts from subtler environments. Their vastness and sense of uniqueness are matched by climatic extremes and lives carved out of natural limitations. We are drawn by absence rather than plenitude, endurance over comfort, unpredictability over the familiar, as deserts touch the limits of survival for man and all living things” (Mol and Sternberg 2012).

These words open a recent edited volume about arid landforms and livelihoods, and well represent outstanding views towards deserts, namely that of outsiders. These views are somehow implicit in the etymology of the word “desert”.

It originates from the Egyptian *tesert*, a place left behind (El-Baz 1988); from the Latin *deserere*, to abandon; and *desertum*, "wasteland". From its etymology, not only a "sense of absence" emerges, as highlighted by Mol and Sternberg (2012), but also the idea that deserts used to be better places which have now become abandoned. In this context, pastoral populations, the main inhabitants of drylands, have for long been considered responsible for the progressive degradation of their environments, because of their limited knowledge, irrational behaviour, and tendency to over-stock and over-graze, explained in more detail below.

Early ethnographers tried to contrast this argument by presenting dryland pastoral populations in a romantic balance with their ecosystem (Evans-Pritchard 1940; Jacobs 1965; Spencer 1965). However, these attempts were strongly countered by the rising colonial preoccupation with the creeping of the Sahara largely attributed to the exploitative behaviour of pastoral populations (Bovill 1921; Stebbing 1935).

During colonial administrations, interests in the peripheral drylands were largely skewed towards the commercial value of livestock production which implied large fencing schemes, coercive settlement of nomadic pastoralists, and introduction of livestock taxes (Dyson-Hudson 1991); as well as towards the geopolitical use of borderlands as buffer zones for military purposes (Schlee 1989).

The concept of drylands, as we know it today, is rooted in the increasing debate about desertification which followed the Sahelian droughts at the end of the 1970s and is framed by narratives of degradation, low productivity, overstocking, overgrazing, dying people, and dying animals (Sullivan and Homewood 2003).

At the base of these narratives there was a general understanding of ecosystems at equilibrium, developed in relatively stable and temperate ecosystems. This view belonged to a "range succession model" (Clements 1916) for which, in absence of grazing, each rangeland has a single equilibrium state, called "climax", achieved through a steady process of vegetation successions, and corresponding to a well-defined "carrying capacity"[23] (Westoby, Walker, and Noy-Meir 1989).

[23] Size of different populations (plants, humans, and animals) that can be sustained through time in a particular area or ecological niche.

Exceeding the ecosystem carrying capacity was considered the primary source of degradation in arid and semi-arid lands, largely imputed to pastoralists and their herds because of overstocking and overgrazing (Brown 1971; Lamprey 1983; Le Houérou 1989). It was argued that pastoralists accumulate livestock more for their social value and prestige than for subsistence or economic reasons, something known as the "cattle complex" firstly discussed by Herskovits (1926). In absence of private property regimes or state regulations, the social desire to increase herd size leads to overgrazing (Barfield 1993). This case was presented by Hardin (1968) in his article "The tragedy of the commons". Drawing from Malthusian population growth theories, Hardin argued that privately owned cattle grazing on communal land would inevitably lead to overexploitation of resources and disruption of the environment, because no one is held responsible. These views represented what Sandford called the "mainstream view" for how much they dominated the thinking of pastoral development (1983).

Thus, initial romantic accounts of pastoral lives in balance with their environments were successively changed into the portrait of pastoralism as a source of disturbance contributing to the encroachment of deserts. Backward and disruptive, pastoral lifeways were understood as merely surviving through hardship, moving irrationally and being prone to war. As a mere background, drylands were pictured as non-places, void of life, awaiting developments, and in need of protection against local inhabitants.

In these years, pastoral development policies received first international attention (Fratkin 1997). Imbued with classical ecology theory and equilibrium thinking, these were largely skewed towards the search of ecosystem stability, reduction of uncertainty, and control of pastoral behaviour.

Interventions aimed at reversing land degradation through destocking measures, population limitations, and grazing taxes. Other interventions aimed at the improvement of livestock commercial production, registration of people for administrative purposes, and restriction of movement and traditional pastoral practices, including: controlled stocking based on stock-rates per unit area; introduction of mechanised irrigation, chemical fertilizers, high-yielding crops; imposition of private forms of land tenure, fencing and control of key resources (i.e. water boreholes); establishment of protected areas for wildlife conservation to boost alternative economies such as tourism; large-scale assistance as fixed term interventions to

improve national economies (roads, market infrastructure, slaughter houses, railway, mechanised boreholes, dipping facilities); introduction of new economic resources to promote alternative livelihoods (agriculture, fisheries, wage employment); provision of famine-relief in the form of paupers' camps, and sedentarisation programmes.

In the 1980s and 1990s, limitations of using conventional assumptions of equilibrium models started emerging, prompted by Holling and colleagues (cf. sec.1.1). As the new resilience thinking was rising in ecology theory, concepts such as "carrying capacity" and "vegetation climax" could no longer be used to describe the behaviour of drylands. Strong fluctuations in dryland ecologies started being observed regardless of density related processes, indicating that an equilibrium point was hardly to be found and maintained (Behnke and Scoones 1992; Ellis and Swift 1988; Sandford 1983; Scoones 1995a; Westoby et al. 1989).

Uneasiness with equilibrium models meant a shift in the theoretical underpinnings of rangeland ecology drawing from emerging concepts of complexity and resilience (Mortimore 2009). Various alternative models have since been proposed[24] around the concept of non-equilibrium and merging in a "new rangeland paradigm", also called "resilience paradigm" (Behnke, Scoones, and Kerven 1993; Niamir-Fuller 1999; Sandford 1983; Scoones 1995a). These new models allowed a different understanding of drylands as "resilient" (Ellis and Swift 1988): non-equilibrial but persistent ecosystems. Fast variations of vegetation structure, ground cover, and precipitation, corresponding to concentration and dispersal of livestock, started being framed in terms of "variability" and were increasingly treated as structural features of drylands—with no stability state to return to or climax to achieve (Krätli 2015).

Thus, perspectives towards drylands changed and local production strategies (i.e. pastoralism), that in equilibrium models have appeared as chaotic, irrational, or disruptive, now made sense in terms of land use based on herd flexibility, diversity, and mobility (Fratkin 1997), and were considered opportunistic and adaptive to a variable environment (Chatty 1972; Roe, Huntsinger, and Labnow 1998; Westoby et al. 1989).

[24] Cf. Westoby, Walker, and Noy-Meir (1989) state and transition models; Roe, Huntsinger, and Labnow (1998) realiability models; Ellis and Swift (1988) persistency models; (NRC (1994) rangeland health; Oba, Stenseth, and Lusigi (2000) climate-plant-erbivory interaction model, among others.

During the last twenty years, these shifts have reached policy attention.[25] Following a period that Scoones (1995a) called "pastoral crisis"[26], renewed interest towards drylands grew in policy making circles, largely following increasing concerns about climate change and the urge to "build resilient communities" to extreme weather events, especially since the Horn of Africa (HoA) 2010/11 crisis[27] (Little and McPeak 2014; McPeak and Little 2017). National governments and the international community thus scaled up their presence in drylands (especially in Africa) calling for a paradigm shift in the approach to drylands' development: building resilience.[28]

However, notwithstanding evolutions in the ecological and pastoralism scholarship, new narratives remain mostly enclosed within academic circles, with few exceptions; and the new resilience language promoted within the development sector in drylands ends up reiterating old myths (Scoones, Catley, and Lind 2013).

The language adopted in the humanitarian/development sphere is, in fact, still one of fragility, coping, and scarcity, while pastoralism remains largely characterised by "narratives of deficit" (Krätli et al. 2015; Krätli and Schareika 2010) struggling through a difficult environment. Legal frameworks continue to deny customary rights (Abbink et al. 2014), as most governments still see pastoral land as empty, degraded, unproductive, and in need of development. Climate change narratives, reinforcing old views of desertification, are short-sighted, ignoring the long-term expansion/contraction of drylands (Ellis 1995; Scoones 2018), and reiterate control-oriented measures (destocking, green-belts, forest planting) and engineering solutions rather than working with the structural variability of drylands (Behnke and Mortimore 2016).

One of the emerging arguments from these approaches is that pastoralists are vulnerable.[29] From irrational, to disruptive, to adaptive agents, they are now largely considered

[25] Cf. (AU 2010; IFAD 2018; IUCN 2012; UNDP 2011; UN/EMG 2011)
[26] Largely because of the failure of previous interventions in drylands, continued land degradation and drought cycles, and subsequent withdrawal of donors.
[27] Cf. Chap.2.
[28] i.e. "Global Alliance for Action for Drought Resilience and Growth"; the "Drought Disaster Resilience Sustainability Initiative" (IDDRSI); the "Global Alliance for Resilience Initiative" (AGIR); "Resilient Pastoralism: towards Sustainable Futures in Rangelands"; the "Regional Enhanced Livelihoods in Pastoral Areas"; the "Building Resilience in Africa Drylands" initiative, among others.
[29] The transit to a language of vulnerability is very common in the recent development literature of resilience, though the two terms remain ambiguously tied together (Béné et al. 2012).

"vulnerable" to recurrent shocks. And drylands remain framed as poor, remote, and degraded, with few and scant resources for the subsistence of drylands' people.

New resilience narratives in drylands portray pastoralism in the context of climate change and mass disasters as no longer viable and pastoralists' areas as in need of transformation to avoid future human catastrophes (Catley 2017). Thus, most policies are geared towards agricultural development, urbanisation, settlement, and promotion of alternative livelihoods; so that "over the long run structural transformation of the economy may generate opportunities for *new livelihood activities that are less vulnerable* to the impacts of droughts and other shocks" (Cervigni and Morris 2016:4; emphasis added). The same goal of transforming herders into something else has been reiterated since colonial days, time and again. No longer (necessarily) because pastoralists are "irrational" or "disruptive", rather because they are "vulnerable" to their own environment.

From a close look into these programmes, I identified the same threefold interest towards environment/livelihoods/bodies as presented in sec.1.2, around the identification of three major "pastoral problems"—to borrow an expression used by Chatty (1972, 2013)[30].

1. Pastoral harsh and remote environments and ecological variability (environment)

Resilience programmes in drylands generally have a "landscape component" which treats the environment very tangibly in terms of ecosystems' services[31], statistical indexes of vegetation/soil/rain patters, and distances (km) to key resources (water, pastures, urban centres, roads).

From an analysis of the landscape component in development reports, as already discussed in the pages above, drylands emerge as inherently fragile, with limited agricultural potential because of poor soils and severe climate shocks, and with a degrading resource base leading to increased competition for land and water. In addition, drylands are defined as suffering from infrastructural challenges just because of their peripheral locations far from urban centres, difficult access to (urban-oriented) services (health, education, market,

[30] Chatty talks of "nomad problems" in relation to concerns with nomadic pastoralists expressed in development literature.

[31] "The benefits people obtain from the ecosystems" (MA 2005): the products obtained from the ecosystem like firewood for fuel, herbs for medicines, materials for construction, etc. Assessments of ecosystem services include: provision, regulation, maintenance, cf. Sinare (2016).

transportation), and slower urbanisation rates. Finally, both landscape and people are seen to be devoid of any socio-ecological own rights to water, education, common land, etc.

2. Pastoral mobile lifestyle and livelihood perceived as a liability (livelihood)

Resilience programmes in drylands often have a "lifescape component" which aims at fostering new resilient livelihoods possibly outside of drylands in three main ways: adaptation (modification of the core livelihood), diversification (additions to the core livelihood), or alternative livelihoods (moving out of pastoralism—a shift towards different livelihoods). Livelihoods are treated very tangibly, mainly in terms of income and size of herds, employment opportunities, meat/milk/hide production, market integration and provision of social services.

Treated as a "way of life" more than a production strategy (Krätli and Schareika 2010), the livelihood discussion is wrapped around current states of pastoralism and its prospects for survival. Even today few policies recognise the value of pastoral mobility, and still few policies consider other (non-livestock) activities shaping pastoral livelihoods (Catley 2017), revealing a bounded approach to livelihoods as separated segments of population (urban, pastoral, agricultural, agri-pastoral, fisheries, etc.). Among these segments, livestock keeping is considered the least self-sufficient, not providing adequate and predictable returns and income which would allow herders to adopt a more stable and secure lifestyle (cf. Alinovi, Hemrich, and Russo (2008).

3. Pastoral risks (conflict, diseases, food scarcity) (body)

Resilience programmes in drylands also have a "bodyscape component" towards the protection of people's lives. Epidemics, diseases, and conflicts are primary drivers of the many forms of insecurity of the body, as individual, social and politic body (cf. sec.1.2). Sources of insecurity are either imputed to external shocks, or to structural features of drylands such as their remoteness and climatic variability, or to a political issue of marginalisation. For the purpose of this thesis I will focus on issues of food insecurity.

Risks of food insecurity are prominent in the resilience literature about drylands; outsiders seem particularly preoccupied by the fact that pastoralist populations make up a disproportionate share of vulnerability to hunger (Homewood 2008). As a result, nutrition and food security of these populations have often been a priority for humanitarian interventions

with the goal of saving lives (bodies); and usually it involves the provision of food in-kind (Czuba, Ayala, and O'Neill 2017), and increasingly also cash and other goods in the aftermath of a shock to help households withstand shocks without impacting on their own productive assets. The food component of resilience programmes in drylands is mainly preoccupied with the individual body ignoring its social and politic dimensions, and it is also treated very tangibly in terms of dietary intakes, dietary diversity, consumption score, food expenditure, and the like. The whole narrative ignores or purportedly hides the fact that dryland economies provide the world with a high percentage of protein food (Shanahan 2016)

Most development/humanitarian interventions in drylands have one, or more, of these components described from the solely perspective of outsiders. What is common to each "pastoral problem" is the high level of "scientism" through which these are defined and the acknowledgment that, because these problems are considered inherent to the behaviour of drylands and their inhabitants, solutions should come from outside the drylands. In addition, each problem is described through a "crisis language". The "crisis" which affects drylands is a "mobility crisis", one which sees mobility as the disturbing element causing suffering and distress. It is a crisis which affects a restless environment because of tireless ecological variability which causes recurrent shocks and disasters (i.e. droughts). It is a crisis which affects livelihoods because of their mobility which make them problematic, random, unproductive (and uncontrollable), and, as such, creates conditions of insecurity. Solving the "mobility crisis" has become the resilience battle in drylands, and yet—reiterating Stafford's question—is the emergence of a narrative based around resilience sufficient for the drylands and their inhabitants? I suspect that resilience alone is not a compelling narrative—it requires an added sense of direction (outward) and purpose (for whom) (Stafford Smith 2016).

The glamour of resilience programming in the development sector in general, and in the context of drylands in particular, has not gone unnoticed by many scholars and practitioners who are warning against the fast and at times uncritical adoption of the concept. I conclude this chapter, in the next section, by presenting some common critiques discussed in the literature as well as the identification of conceptual and empirical gaps which I address in the four empirical chapters which follow.



Herding shoats through Turkana plains. Lorengelup/Turkana Central. November 2016.



In this concluding section of Chap.1, I briefly present some general critiques to the adoption of resilience in the development/humanitarian sector. I then highlight conceptual and empirical gaps which I argue characterise the development scholarship on resilience. Finally, I lay the theoretical foundation of my four empirical chapters to respond to those gaps in reference to the three "pastoral problems" identified in the development literature of resilience in drylands (cf. sec.1.3).

*

Many critiques towards the use of resilience in the development sector concentrate around problems of definitions (Brassett et al. 2013; Levine et al. 2012; Maxwell et al. 2014), fuzziness, and its normative character (Brown 2015; Jerneck and Olsson 2008; Mitchell and Harris 2012). Strongly, Scott-Smith says resilience should be resisted because "too cosy, too diffuse, too prone to fuzzy thinking" (2018:13). Relatedly, in 2013 the New York Times magazine declared resilience to be the buzz-word of the year (Pugh 2014): attractive but meaningless, desirable but void of pathways and guidelines on how to get there.

Others argue that the further resilience travels into the social science, away from engineering and ecology fields, the more its "conceptual clarity and practical relevance is critically in danger", as original descriptive meanings of resilience are diluted in ambiguous ways (Brand and Jax 2007). Its applicability into social domains and dynamics is thus questioned as risking to fall into scientific imperialism and to silence the plurality of voices, especially from the least influential parts of society (Chandler and Coaffee 2015).

Others warn against the conservative nature of resilience thinking and programming (Brown 2011; IDS 2013; Levine et al. 2012). It promotes business as usual, re-packages and re-labels the same interventions, and it maintains the focus on the persistence of the system (structure, function, and identity). In so doing, the resilience language tends to be excessively technocratic and managerial (Cannon and Müller-Mahn 2010). Discussion is wrapped around scientific definitions, metrics and technocratic responses which divert attention from the real problem at stake: reducing people's vulnerabilities (Levine 2014).

Building on these critiques, I identify a set of conceptual and empirical gaps which are recurrent in the ways resilience is treated in the development/humanitarian literature and

relate to the way we think about people's lives in crisis or in contexts considered harsh and threatening, such as drylands.

Conceptual gaps reside in the articulation of resilience as an expression of crisis from the sole perspective of outsiders. This is problematic for three main reasons.

Firstly, the resilience literature still considers disasters as episodes/events rather than a peak of a continuum (Macrae 2012), ignoring theoretical evolutions in the disaster literature for which disasters can no longer be "mentally exiled to an archipelago of exceptionalism" (Hewitt 1983).[32]

For example, despite the idea of droughts in drylands as major disasters of exceptional nature having long been challenged (Pavanello 2009), donors still continue seeing droughts as exogenous and sudden events (Maxwell et al. 2014). Dominant frameworks emerging from resilience interventions still treat crises as unforeseen singular events that disrupt normal life and require help from outside.

Secondly, the conventional framework of analysis in the development/humanitarian sector uses "the crisis" as the only conceptual framework and analytical lens to explain people's behaviour and responses. The event or shock takes central stage and everything is discussed in the "shadows of the crisis" (Bakewell and Bonfiglio 2013). As a result, resilience operates as a "discourse of survival" (Jasanoff 2008) and reiterates ideas of coping as a main frame to understand pastoral livelihoods.

By excessively focussing on the "shadows of the crisis" one risks ignoring the social context and historical perspectives of the crisis itself (Anderson and Johnson 1988). One also ignores the degree of embeddedness of crises in societies and the fact that people continue living their daily lives, despite it all. With this I am not conveying that we should discard the element

[32] The literature on disasters has considerably evolved through time. Initially, disasters were considered to be "Acts of God" against human sins. Since the Enlightenment, this view has changed (Manyena 2009). Increasingly, disasters were framed as "Acts of Nature", or as a "duplication of wars" (Quarantelli 1998), imputing catastrophes to an external agent against which human communities must react. This view also considerably changed, since researchers started recognising the social foundations of the evolution of disasters (Alexander 1997; Blaikie 1994; Hewitt 1983). Researchers now see disasters as caused by social conditions rather than by geophysical agents. As a result, disasters cannot occupy a specific phase within a classical cycle that starts from quiescence to warning and pre-alarm, to crisis manifestation, and finally rehabilitation and reconstruction. Rather, they are embedded within daily ordinary lives and are increasingly framed as normal orders rather than abnormal exceptions.

of the crisis and accept it/normalise it. I do not wish to underestimate the suffering of many people in drylands when droughts strike. But to examine the nature of the crisis, I believe, we must also look beyond it.

My last trip to one of my field sites took place in February 2017—it was the peak of the last drought hitting the HoA. All shallow wells in the area were dry, as well as most drilled boreholes. Water was only available from one wind-pump that had been drilled by UNICEF, if there was wind. I had gone to visit my host family, to greet them before I moved back to the UK. When I arrived at their hut, located some kilometres away from the main road and settlement, only kids welcomed me. The three huts, for the three family wives, looked abandoned, goats' kraals silent. However, I quickly learnt that my host parents had simply gone to celebrate a friend's wedding. Kids stayed at home to look after the huts and the few remaining goats, as most of the herd had migrated long before with their older brothers and two co-wives. A couple of days after, my host parents arrived thrilled from the wedding and with plenty of meat. I spent my last days in Turkana, during the peak of one the most severe droughts in memory[33], eating meat, playing games with kids during nights of full moon, and sharing a countless number of anecdotes, despite the drought.

Thus, to challenge the baggage of assumptions and stereotypes that shape dominant images of "drylands in crisis", I urge to move beyond the crisis element, searching for every-day forms of resilience, such as Enyes's story at the start of this chapter, or the sharing of meat during a severe drought with my host family in Lorengelup, and "attending to all possibilities for life" not just survival (Leach 2008:309).

Thirdly, the centrality of the crisis in resilience interventions in drylands, reflects equilibrium thinking rooted in engineering and classical ecology traditions. From equilibrium thinking, the main implication is that "bouncing" is ideal; an expression which is indeed very common in the application of resilience in the development sector (cf. sec.1.2).

Emphasis moves from maintaining the status quo/returning to normal (reductionist approach), "bouncing-back", to managing change and developing processes of becoming/transformation, thriving from crises (transformative approach), "bouncing-

[33] Since the end of 2016 and throughout 2017 the HoA experienced a long-term drought. Media spoke of one of the severest droughts in living memory. Cf. http://www.irinnews.org/analysis/2017/10/12/drought-pushes-kenya-s-pastoralists-brink? Last accessed: 02/07/2019.

forward" (Manyena 2009). If the "bouncing-back" analogy is clearly problematic for its little attention to what normality entails, and for hardly being either possible or desirable, the "bouncing-forward" metaphor is also questionable. In many circumstances it is equally unrealistic and, most importantly, it preserves ideas of discrete and stable states of change through crises (before and after) in which crises maintain central stage.

Both, reductive and transformative approaches, imply an idea of progress as a linear path (Scott-Smith 2018). Bakewell showed that the practice of development has, not surprisingly, remained anchored to beliefs in "progress", from one development status to the next (2008a). Once normality has recovered from the disturbing element of the crisis, a steady progress will unfold, generally illustrated by an upward line on a graph which shows increasing wellbeing and economic prosperity, while poverty ends (Levine 2012).

In contexts characterised by high variability, such as drylands (cf. sec.1.3), ideas of bouncing through stable states of progress is not only meaningless but also counterproductive. In these contexts, goals of linear development are perpetually hampered by what Roe called the "mess paradox": "The more mess there is (high variability), the more reliability decision-makers want; but the more reliable we try to be, the more mess is produced" (Roe 2013:7, parenthesis added). It is therefore suggested not to resist variability, but to move with it.

Mobility allows looking at fluxes and flows, processes and practices, rather than "bouncing states", and, as an analytical lens, allows a better understanding of the behaviour of drylands and their inhabitants. I thus turn, inductively (cf. Chap.3), towards the use of mobility as *the* theoretical foundation for the understanding of resilience and its components (environment, livelihoods, bodies). The emerging picture objects to negative views of mobility and proposes mobility as part of the "solution", as an integral part of people's lives and lived environments. With this thesis I argue that, because mobility is so central to people's lives and places, analysis of resilience should be "set in motion", and that attempts at constraining mobility can only increase vulnerability, undermining agency and reducing resilience (cf. Hammond 2011).

Rejecting a dominant "sedentarist's metaphysics" (Malkki 1997), implicit in development making, which imposes order and fixity, I draw from the mobility paradigm which instead promotes a "nomadic metaphysics"(Cresswell 2006) putting mobility first—not as a threat, nor as an obstacle or a sign of disorder or exceptional circumstance, but as a sociology of

everyday life (Sheller 2014). Applying this lens to the study of resilience interventions in drylands I contest the "sedentary bias" (Bakewell 2008a) that is still dominant in the development sector and limits theoretical exploration of concepts such as social change, community formation, identity, and the role of place (Hammond 2004). These limitations of theory are in turn responsible for the practical limitations, discussed at the beginning of this section, in perpetuating business as usual and narrow understandings of resilience.

The relevance of mobility as an analytical lens explaining resilience in drylands (and perhaps beyond) emerged only from within—when I started seeing the world around me from the eyes of my host families. This led me to the identification of empirical gaps in the resilience scholarship, namely the lack of empirical studies on the notion of resilience.

A corollary of this, is the over-imposition of the views of outsiders over the perspectives of insiders on their own lives, consequently lacking the nuance of observations developed from within. Adding on more "objective views" of resilience as resulting from quantitative metrics, one should also pursue "constructivist views" of resilience by using people's own narratives and perceptions (Brown 2015). In other words, resilience should stop existing as a "category for outsiders", as a view from above, but rather exist in the lived and imaginal experiences of people in their everyday, at the eye level—it should not be aimed at "making a view of the world, but taking a view in it" (Ingold 2000:42).

The four empirical chapters of this thesis represent an attempt to highlight everyday forms of resilience (beyond the crisis—conceptual gaps) and Turkana herders' own perspectives on their lived environment, livelihoods, and issues of food insecurity through their voices, experiences, and daily practices (empirical gaps), to build a more nuanced and grounded understanding of resilience. They come together providing a different narrative which rescues drylands and their inhabitants from the prejudices they are generally subject to.

How was the resilience-turn in development-making applied to the context of East African drylands? The next chapter provides the contextual background of this study. I provide a brief profile of Turkana County and show how the operationalisation of resilience unfolded in the development/humanitarian landscape of the HoA since 2010/11—when the Horn was hit by a drought which led to extensive famine and to the emergence of a new resilience agenda to End Drought Emergencies (EDE).

Chapter 2 ~

Research problem in context:

Turkana County and the resilience agenda in the Horn of Africa



Thorns and dust. Kaikole/Turkana Central. November 2016.

Introduction

Turkana County—a place made of thorns and dust located in the arid lands of Northern Kenya—is known as one of the poorest and harshest environments in the world. And certainly, this image is reproduced when one travels to Turkana for the first time.

Past the Eldoret and Kitale highlands that are largely shaped for agricultural purposes, vast semi-desert plains open. From a birds-eye view, sitting next to the window of a small aircraft, the Turkana land is creased. Like wrinkles, dry creeks cut through flat golden plains. Few huts blend in with the land, scattered in the expanse. Hot air trembles outside the window when landing at the new small airport in Lodwar, now serving several low-cost flights a day.

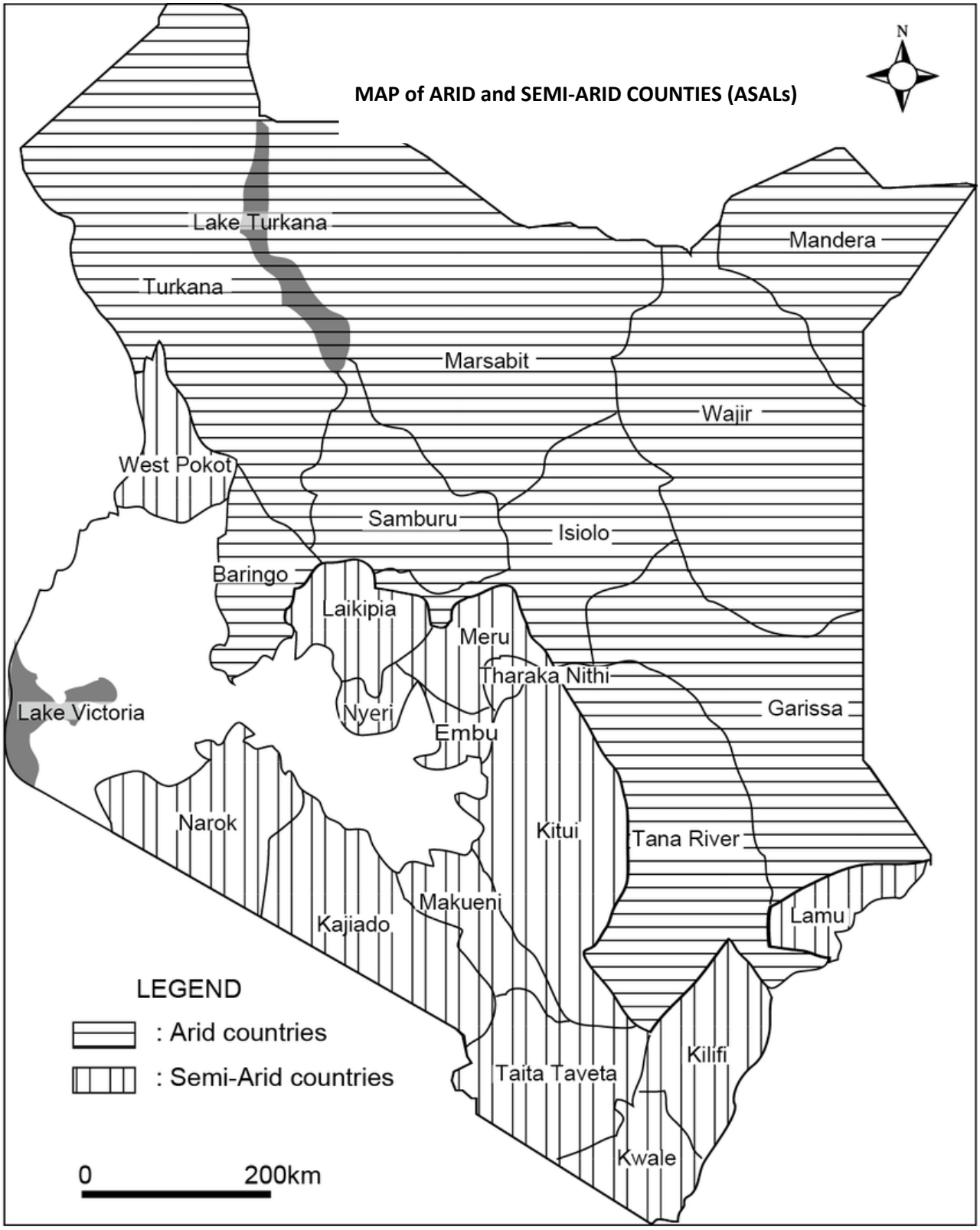
The other way to reach Lodwar, Turkana's capital, is by road—a much longer and exhausting journey. Small buses leave Nairobi early in the morning and reach Kitale by night. At sunrise, buses and pick-ups resume travel through rough roads unfolding from the Marich Pass, at the border of West Pokot and Turkana counties, into Turkana plains. The landscape, coursing in front of the traveller's eyes, blurs at the horizon where desert plains meet a white sky.

It is only walking through this apparently dull land, that a different view emerges. In this way, the complexity, dynamism, and richness of Turkana landscape comes to life, as it is to the eyes of herders. Seldom, however, is this view reproduced in scholarly and development accounts about Turkana. As a result, two opposing views collide: an "insider" view—that of the pastoral majority which inhabits the rural interior lands in Turkana; and an "outsider" view—that of foreigners and nationals/locals forming the now rising urban population in the county.

In this chapter I present the development/humanitarian landscape in the HoA and in Turkana, and its turn towards the language of resilience since the HoA crisis in 2010/11. In addressing this shift in policy narrative, I show a promising renewed attention towards drylands, which grew in the last decade after more than 90 years of political marginalisation, but also the inertia which nonetheless remains when policies are implemented.

After a brief introduction of Turkana County (sec.2.1), I show how the emergence of a resilience agenda in the Horn has not led to significantly different operations from the past and has instead shown a limited understanding of resilience, anchored to dated views of drylands and pastoralism, and devoid of people's voices, experiences, and perceptions (sec.2.2).

2.1 Turkana County and the arid north



Ministry of Devolution and Aird and Semi-Arid Lands (ASALs)

This study speaks beyond the case of Turkana County and perhaps even beyond the specificities of drylands, because some of the arguments I offer in this thesis can be applied also to the use of resilience in other contexts. Yet this thesis and my broader ambitions cannot be properly explained out of context. In this section I therefore present background information on Turkana County while also providing a general idea of humanitarian/development interventions in the county to frame the specific context of humanitarianism to which this study aims to respond.

*

Turkana County is one of the 47 Kenyan counties and lies wholly in the eastern branch of the Rift Valley. Turkana is recurrently perceived as marginal; firstly treated as peripheral by the colonial and nation state, and more recently also by expanding urbanities and elites within its own administrative borders (Betti 2010; Rodgers 2018).

Despite a varied landscape which includes mountains and hilly ranges, open low plains, ravines, complex hydrological supplies made of underground water, several seasonal rivers and two perennial ones (Kerio and Turkwel river), and Lake Turkana, Turkana is mostly known for its remoteness, ecological instability, and scarcity of resources—and frequently described as “inhospitable” and “unforgiving”. The following quotes mirror each other, even though they come from different historical periods and are extrapolated from different discourses: colonial officers exploring the resisting province at the turn of the 20th century; ecologists and anthropologists studying dryland ecosystems and livelihoods at the turn of the 21st century; and, most recently, development organisations aiding pastoral populations. Most of the literature about Turkana contains a similar sense of desolation, desperation, and resistance.

> "Hostile natives of exceptional size, strength, warlike, treacherous and enterprising" (British Major Herbert H. Austin 1902, cited in Hatcher 2014).
>
> "This one-time cradle of humanity is now a harsh and inhospitable environment where drought and famine are all too common" (McCabe and Ellis 1987:33).
>
> "One of the most desolate inhabited place of the continent and an area of absolute need" (NGO Burnabi Blue Foundation, cited in Müller-Dempf 2014).

Turkana people are warriors, in the eyes of colonial patrols sent to defeat them; in the eyes of researchers studying survival strategies; and in the eyes of humanitarian agents fighting poverty. The most common element in the various narratives about the Turkana is the harshness, scarcity, and remoteness of the space they inhabit. Turkana is seen as a place where a constant battle takes place. Theatre of perennial catastrophes (recurrent droughts, land degradation, water scarcity, famines, conflicts), it is a place where one inevitably asks how life is possible.

Nonetheless, there are signs of human presence in the region since 4 to 5 million years ago (Little and Leslie 1999:25), evidence not only of the possibility of life but also of its evolution[34].

People inhabiting Turkana today are locally known as *Ngiturkan*, which literally means "people of the caves" (McCabe 2004:47). Part of Eastern Nilotic groups, the Turkana emerged as a separate ethnic group about 300 years ago, as an offshoot of a larger linguistic family known as *Ateker*[35].

At the beginning of the 18th century, they moved down the Karamoja escarpment, now bordering Kenya and Uganda, and ventured into the Tarach-Valley, in what is today north-west Turkana. Here they probably came into contact with previous occupants of the land, such as Kor and Siger peoples (Lamphear 1988). Intermarriages, population growth, and ecological pressure pushed further territorial expansion south-east. Moving down they started "destroying, displacing, or assimilating" other pastoral groups on the vast plains in the west of Lake Turkana (Dyson-Hudson and Dyson-Hudson 1999:28). By the mid-19th century they emerged as a major power in the north-western region of the country (Awuondo 1990:28).

Soon after, however, Turkana became an area contested by various powers, especially caught between the Ethiopian Empire, under King Menelik's expansionistic plans, and the British

[34] Hominines' evolution in the Turkana area was triggered by the Rift Valley orogenesis, that opened, about 6 million years ago, a new niche to a number of species with bipedal locomotion (Genus *Australopithecus* and *Homo*). The climatic trend was from forest to savanna to drylands (where moving long distances on two legs became an advantage), in a progressive "desertisazion" of abiotic origin (distinct from desertification, which is of human origin, cf. Sears (1935). This trend shows the potential advantages of drylands occupation by humans (Little and Leslie 1999:25).

[35] Composed of Karamojong, Jie, and Dodos of Uganda; Taposa and Jiye of southern Sudan; Nyangatom of Ethiopia; Turkana of Kenya.

colonial administration. British patrols managed to suppress Ethiopian attempts to colonise the region by 1918, but then had to face a longer and bloodier resistance by the N*giturkan*.

The Turkana were remembered by British officers as the "finest fighting men in east Africa" (DC/TURK.3/1_1921-1945:35), organising and maintaining the longest opposition to colonial domination remembered in African history (Awuondo 1990). The British responded to the Turkana's resistance by increasing punishing patrols, imposing hut-taxes payable with livestock, disarming, institutionalising the role of chiefs and eliminating pastoral expertise (seers, medicine-men, elders, and war leaders).

British efforts to conquer Turkana were brutal and bloody despite the minimal interests over the region. Because of limited expectations of profitable returns from investments in the region, when finally, in 1926, civil administration was introduced, Turkana was in fact confined and classified as a "closed district". Road blocks prevented access to the district and outsiders were largely denied permission to cross Turkana, including missionaries who were only allowed into Turkana after independence (Little and Leslie 1999:38). As a result, when in 1963 Kenya achieved independence, in the northern province there were only two primary schools, few dispensaries, and barely any roads.

The initial impetus for "development" can nonetheless be traced back to those years of early colonial administration, through, for example, the imposition of a new hierarchy of headsmen and chiefs and a progressive capitalistic penetration of an urban elite (Awuondo 1990; Broch-Due and Sanders 1999; Hogg 1982).

Indeed, the landscape had already begun to transform quite dramatically. Before colonisation there were hardly any settlements, except some small fishing villages along the shores of Lake Turkana and Swahili trading centres in South Turkana (Rodgers 2018). Nomadic pastoralism was the dominant and most suited livelihood strategy given the climatic and geographic conditions of the Turkana basin. The composite profile of the landscape, with increasing precipitation, woodland covers, and grasslands following increasing elevation, allowed for mosaic patterns of mobility between the outer mountainy ridges, the vast central plains and lake shores. In addition, livestock husbandry was commonly integrated with various forms of gathering, hunting, as well as fishing in the waters of Lake Turkana.

With colonisation, administrative centres started being built as well as livestock markets and towns—such as Lodwar founded in 1920 and set up as the heart of the British administration (CIDP 2013-2017). In addition, investments carried out by British settlers, even though limited, such as road construction, needed local labour, which was compensated with in-kind payments, consequently creating new forms of jobs and contributing to further diversification of the pastoral economy and the general landscape of the basin (Rodgers 2018). This trend advanced at a faster speed after independence, despite the same policy of containment having been perpetuated with investments largely directed towards the high-lands, so-called "high-potential areas"[36], and road-blocks maintained until 1973 (Little and Leslie 1999).

Nevertheless, by the 1980s the number of roads, missions, towns, trading centres, and shops had increased sharply, together with an urban population involved in activities other than herding. Most recently there emerged a vibrant class of politicians, entrepreneurs, and investors whom, especially since the new Constitution in 2010, are strongly shaping the socio-ecological and economic landscape of the county.

Turkana today shows a complex administrative profile organised around 7 sub-counties, 17 divisions, 56 location, and 156 sub-locations.

Table 2.1 Turkana administrative profile

Sub-county	**Division**	**Location**	**Sub-location**
Turkana South	3	6	17
Turkana East	2	9	20
Turkana North	3	11	31
Kibish	1	3	7
Turkana West	3	12	34
Turkana Central	3	8	21
Loima	2	7	26
Total	*17*	*56*	*156*

Ministry of Interior and National Coordination, Turkana County

[36] Cf. Sessional Paper n.10, 1965.

Despite being one of the least populated counties, it reached a total population of 1,009,229 in 2014[37] (KNBS 2015), out of which 14% is urban. The number of available services has also increased including hospitals, dispensaries, and health centres; infant, primary, and secondary schools, as well as two university campuses; and water sources (piped schemes[38] and improved water sources[39]). There are 6kms of tarmacked road in Lodwar town and extensive grading and gravelling of various county and rural roads. Urban Solar Street lighting has been installed in several towns and spatial development plans have been done for a further 8 towns (CADP 2018). Finally, there is a local airport serving several low-cost flights a day between Lodwar and Nairobi.

In addition, expanding refugee operations in Kakuma and Kalobeyei camps, the recent discovery of oil, and one of the biggest aquifers in the world, and wind-power energy potentials, have brought new interests to Turkana County. As a result, the economic status of the county is expected to change in the near future together with large investment inflows from the private sector.

Despite the auspicious socio-economic growth which all of these investments may be bringing to the county, there is also the danger of new forms of social differentiation, marginalisation, and further polarisation between interior rural lands and the new urban hubs that are spreading across the county. Moreover, a "crisis discourse" still prevails as narratives of harshness, remoteness, and insecurity remain dominant, largely anchored to a long history of development/humanitarian interventions.

The first famine camps were opened in the 1920s, in response to heavy human losses, reduction of livestock, and ecological collapse caused by the war between the British and the Turkana (Awuondo 1990), marking the beginning of over 90 years of humanitarian/development interventions (Eriksen and Lind 2009; Lind 2005; Unicef 2012). As reconstructed by Reidy (2012), this process started with paupers' camps in the 1930s, moved to mission-based famine camps (a permanent feature by the 1960s), expanded into large scale emergency relief-operations in the 1980s (when about half of the population was receiving

[37] Projections from census 2011.
[38] Pumped ground water based, pumped surface water based, gravity flow scheme.
[39] Tube/borehole, protected dug well, pipe into dwelling, water kiosk/public tap, sand dam with standpipe, rain harvesting, rock catchment, protected spring.

food aid and was settled in camps or within their proximity), and gradually evolved into the multi-agency distribution efforts of today.

During this process, famine camps came to be increasingly criticised[40], new forms of relief-distribution were experimented with the overall effect of turning emergency aid into a permanent survival strategy. From the 1990s, decentralised stores were built to improve food distribution, to be closer to people: where they live and where they move (Birch 1994). And also new forms of "feeding camps", as labelled by Betti (2010), were opened, such as schools, dispensaries, and churches distributing food to the so-called poor.

Since early interventions, in line with dominant ecology theories of the time for which pastoral strategies were inherently destructive for the environment[41], alternative livelihood schemes were also set up alongside relief-operations, by missionaries and development/humanitarian organisations. Under these schemes, nomadic pastoralists were re-settled along lake shores as fishermen, or along Turkwel or Kerio rivers as farmers, in the hope of promoting viable alternative livelihoods, other than herding. Through all these forms of interventions the main goal has remained unvaried since colonisation: to settle Turkana herders and pastoralists and transform pastoralism into something else (Broch-Due and Sanders 1999; Eriksen and Lind 2009; Hogg 1982).

When the 2010/11 HoA crisis hit the region, these interventions were held partially responsible for the reduced ability of local people to cope with shocks. A resilience agenda grew under a renewed attention towards the drylands.

With great hopes for a transformed policy-scape, how was the new resilience agenda translated programmatically and operationally in the HoA, and in Turkana County in particular? In the next section, I show the emergence of the resilience agenda in the HoA pushed forward by the goal of ending drought emergencies in the region.

[40] Several reasons have been presented against famine camps, including the underlying ideology of keeping pastoralists settled rather than enabling them to return to active herding (Broch-Due and Sanders 1999), having increased people dependency (Lind 2005) and having made them slaves of their stomach (Reidy 2012).
[41] Cf. Chap.1.

2.2 “Now drought is in trouble”: the resilience agenda in the Horn of Africa



A bull in trouble. The killing of the bull. Koomyo/Loima. December 2016.

The year 2010-11 is a benchmark in the humanitarian history of the HoA. Remembered as the HoA crisis, it can possibly be considered as the launch for the resilience agenda in East Africa. Many observers, governments, and members of the international community refer to the 2010-11 crisis as "the Drought", emerging from the failure of several rainy seasons. In this region drought is neither unexpected nor unusual, but in 2011 its effects were exacerbated by several other factors which led to a fast deterioration of events, including: high fuel prices, high and volatile food prices, poor governance, conflicts, and lack of political commitment. Across the Horn, an estimated 13 million people were affected (Maxwell et al. 2014).

In this section I discuss how the resilience agenda received new impetus, especially in the arid lands of the Horn. I show its declination in the Kenyan policy landscape and application in Turkana County. After a long history of political marginalisation, drylands received new attention in government and humanitarian discourses. It however remains questionable whether this new interest is based on a deeper understanding of drylands and of the lives of their inhabitants, or rather a reiteration of dated policies.

*

Drought is not unusual in drylands, either in its appearance or devastating effects. It is cyclical and is an expected event. What shocked both internal and external observers at the peak of the HoA crisis, was the seeming inability of the international community to foresee the outcome of the drought (extensive famine) or act in time (Maxwell and Majid 2014). Years of drought preparedness and disaster risk reduction plans seemingly bore little fruit and the resilience the international community had committed to supporting at the World Conference on Disaster Reduction, through HFA, five years earlier, was in short supply.[42]

As a result, the resilience agenda received renewed impetus by the evidence of past interventions' failure. The shift in policy saw the active participation of HoA countries themselves, who rushed to change their programming towards disasters to fully embrace the resilience thinking and language, specifically addressed at Ending Drought Emergencies (EDE).

Notably, on the 9th of September 2011 Heads of states and Governments in the HoA met at what is remembered as the Nairobi Summit with the goal to plan, harmonise, and mobilise

[42] Cf. Chap.1.

resources to ensure the next drought would not result in another humanitarian crisis. They defined the resilience agenda for the Horn, through the Drought Disaster Resilience Sustainability Initiative (IDDRSI), and the meeting ended with complacent confidence: “Now drought is in trouble” (IGAD 2013).

Among all member states, Kenya has shifted towards the resilience agenda at the fastest pace (Carabine, Jouanjean, and Tsui 2015), especially focussing on the arid and semi-arid lands (ASALs) located in the northern counties.

The current policy framework in Kenya has indeed received a stronger push than other IGAD states through the process of devolution initiated in 2010 with the new Constitution, which gave renewed powers to county governments, and through private sector’s interests over drylands, tied with the discovery of large quantities of natural resources and minerals. As a result, areas historically marginalised by the label arid lands entered legal and policy frameworks including the National Constitution as well as various acts pertaining to land, resources, and national development funds (Rodgers 2018).

The resilience agenda in Kenya is articulated in a complex policy framework made by several documents including:

- The Kenyan Vision 2030, which represents the overarching Kenyan national plan;
- The Development Strategy for Northern Kenya and ASALs, also known as ASALs’ policy 2012, which applies the Kenyan Vision 2030 specifically for the ASALs;
- The Sessional Paper n.8 (2012) (National Policy for the Sustainable Development of Northern Kenya), which aims at closing the developmental gap between the north and the rest of the country.

Finally, the resilience agenda is also endorsed in the Ending Drought Emergency strategy (EDE) 2012-2022, which tightly follows guidelines set through IDDRSI.

At the heart of this renewed policy framework there are two recurrent themes.

The first one concerns regional inequalities which primarily affect the arid north. These documents recognise the gap which separates northern Kenya, largely arid lands, from the rest of the country, mostly agriculture-suitable highlands and coastal regions. This gap is framed as a consequence of a political history of marginalisation and limited investments.

Deliberately, the ASALs' policy and the Sessional Paper n.8 (2012) challenge the historical and influential Sessional Paper n.10 (1965) which perpetuated a biased distribution of resources and public investment towards the so-called "high potential areas" initiated under the colonial rule:

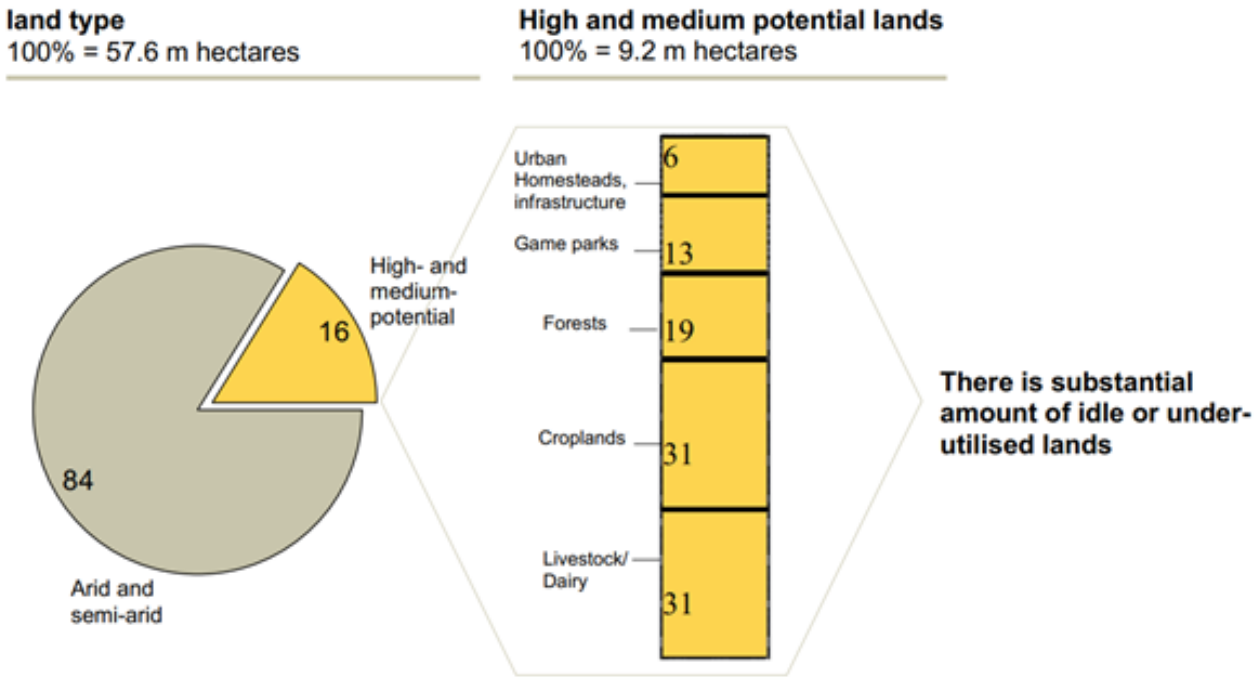
> "To make the economy as a whole grow as fast as possible, development money should be invested where it will yield the largest increase in net output. This approach will clearly favour the development of areas having abundant natural resources, good land and rainfall, transport and power facilities, and people receptive to and active in development" (GoK 1965:46).

The new policy framework identifies most problems of the arid north as political rather than ecological and aims at increasing national cohesion by closing the developmental gap which was created as a result of political and economic manoeuvres perpetuated from the colonial administration onwards.

The second common thread is the progressive discovery of the latent potential of ASALs. The Kenya Vision 2030 recognises a growing role for ASALs, even though these remain quite marginal in the general outline of the documents and confined to an aspired economic potential only achievable by boosting dryland agriculture—as implied by diagrams like the one below which states that of the 84% ASAL land cover in Kenya only 16% can be considered as "potential" (reiterating a long lasting view of drylands as wastelands).

A more direct recognition of ASALs' potential comes from the ASALs' policy and the Sessional Paper n.8 (2012). Both texts target more specifically ASALs, as their economic role is increasingly understood. They highlight many opportunities arising from the arid regions, including: their strategic position within the Horn; domestic trade advantages and their complementarity with highland economies; natural wealth (oil, minerals, natural gas); and tourism potential. These documents also mention the opportunity to learn from arid lands populations how to manage climate change and variability; a rather different perspective from the unreceptive and passive agents described in the extract of the Sessional Paper n.10 (1965) reported above. For the first time, not only is the recurrent nature of drought recognised, but also local capacities are valued.

Figure 2.1 Dryland potential



Kenya Vision 2030:47

Notwithstanding these progresses at policy level, problems remain when policies are translated into practice. Already a few years since these discourses gained momentum there is still limited investment in pastoral economies (Unicef 2012). Some investments may even be pushing marginalisation and segregation of pastoral people in favour of a growing educated elite, jeopardising resources for urban centres (cf. Rodgers 2018).

Interventions proposed by the Kenya Vision 2030 as "flagship projects" are not particularly different from previous modes of interventions: early warnings, irrigation schemes, boreholes, school feeding programmes, market infrastructure, veterinary support, etc. Despite growing recognition of dryland populations' abilities and knowledge, they are still treated as vulnerable to their environment and in need of "development".

The EDE Strategy, IDDRSI milestone, a 10 year programme (2012-2022) aiming to end drought emergencies by 2022 and focussing on the 23 most drought-prone counties, is a good example for this observation, as it basically allows development/humanitarian interventions to continue their legacies on the ground (Carabine et al. 2015). Designed to add value to already

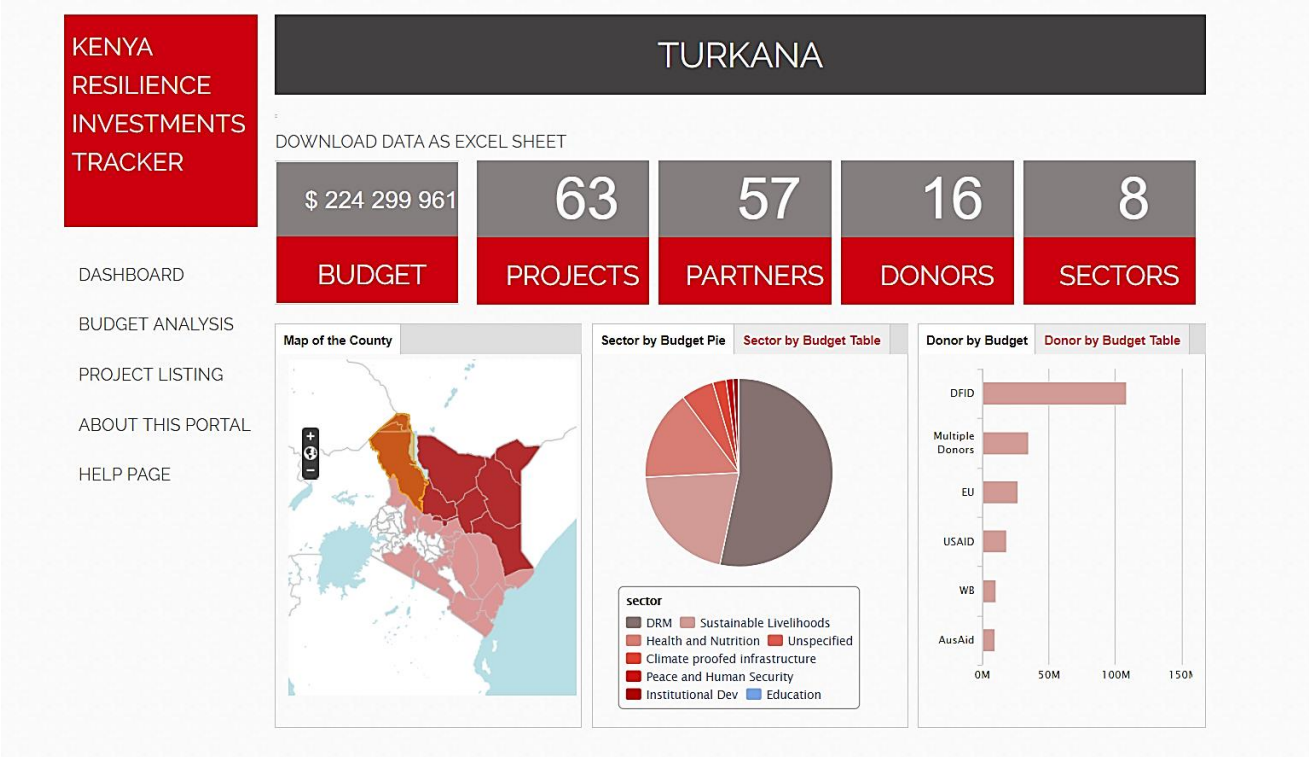
existing activities, it was noted that 87% of its funds are spent in standard sustainable livelihood projects and disaster risk-management activities—traditional policies linked to disaster reduction, now associated with drought resilience.

The reiteration of past policies is seemingly transmitted also at county level, where EDE was anchored through the County Integrated Development Plans (CIDPs) emerging from devolution plans. Turkana County received the largest share of the EDE fund—with over $220m worth of projects invested in the region since 2011—and yet it did not lead to significantly different operations from the past.

An assessment carried out by ODI has labelled CIDPs as largely aspirational documents with little evidence of effective programming and tied to budgets available at county level (Carabine et al. 2015). Thus, for example, despite Turkana's CIDP (2013-2017) identifying the livestock sector as a policy priority, only 2% of the county budget is actually allocated to the pastoral economy. Instead, the largest shares of Turkana budget, in line with EDE's recommendations, are allocated to more classical interventions in dryland linked with water, irrigation, health, and education sectors. Likewise, international aid linked to the EDE Strategy was invested in standard Disaster Risk-Management (DRM) and Sustainable Livelihoods interventions, as labelled in the "resilience investment tracker" (Fig.2.2).

In these sectors some of the largest programmes in Turkana are funded by the UK's Department of International Development (DFID), like the Arid Land Support Programme (ASP) and the Hunger and Safety Net Programme (HSNP). Also, a large number of NGO consortia have emerged to address the resilience agenda, such as La Nina Consortium (composed by Oxfam, ACTED, Concern Worldwide, and VSF that received funding from the European Commission Humanitarian Aid and Civil Protection Office, ECHO) and Swift consortium which operates through Oxfam and Practical Action, and promotes: drilling and rehabilitating boreholes; laying pipelines; constructing water kiosks; installing tanks and solar pumping systems; constructing and rehabilitating shallow wells; and equipping boreholes with low-maintenance Blue-Pumps.

Figure 2.2 Resilience dashboard: investment tracker



3W Resilience Map. UNOCHA. Last Accessed: October 2016.

While it goes beyond the scope of this chapter to assess each single resilience intervention implemented in Turkana, it is nonetheless worth noting that these are extremely similar to what has been done previously. They use indicators such as the number of boreholes and piped water delivered; number of schools and health facilities built; number of seeds or crops distributed; or number of irrigation schemes opened; improvement of access to services, measured in km distance, and so forth. The same social service infrastructure is re-proposed in the new resilience package: trading centres, dipping facilities for livestock, experimental boreholes, infant schools, primary schools, secondary schools. Scholarly changes in the views of pastoralism which stressed the importance of mobility, flexibility, and adaptability for pastoral livelihoods[43] have somewhat been lost in the translation into development practices which favour physical fixed constructions, provision of hard assets, and promotion of alternative livelihoods.

Moreover, one of the clear messages heard from the 2010-11 HoA crisis, as voiced by an assessment led by Maxwell et al. (2014), is that market-based interventions (cash or voucher

[43] Cf. Chap.1.

transfers) showed to be working reasonably well to secure against emergencies. Indeed, unconditional cash transfer programmes, like HSNP in Kenya, have the great value to be scalable more quickly than in-kind assistance in case of emergency. Additionally, and perhaps more importantly, cash transfers in drylands have the advantage of being a "virtual asset": light, transportable, convertible—important assets' qualities for mobile people (cf. Chap.6). Overall, HSNP is identified as one of the good examples of interventions because, for instance, being designed not to constraint mobility. Nonetheless, I still find these interventions problematic when framed under the resilience agenda.

The link between resilience and social protection measures, like cash transfers, is intuitive; however Levine and Mosel explain that it is not entirely simple (2014). The underlying idea is that resilience is improved by replacing lost assets after a crisis, in this case by means of a virtual asset—i.e. cash[44]. This reveals a bias in understanding what constitutes daily resilience for dryland populations, confining a virtual asset to its most tangible forms—substitute assets. However, the most praised quality of assets in pastoral societies is their intangibility: transportability, convertibility, lightness (cf. Chap.6). Observing and studying the ways herders appropriate scattered resources, how they make sense of interventions in their lived space, including "free food" and "free cash" (as cash or food transfers are interpreted locally) tells a more interesting story of active agency and constant re-articulation of one's own main livelihood (cf. Chap.5)—a site where I believe a different view of resilience can be found.

A different view of resilience can only be developed by shifting perspective. The reflections on cash transfer programmes presented above point not only to a reiteration of similar interventions in drylands seen in previous times, but also to a fundamental failure to incorporate into their programming local people's accounts of and insights into the meaning of crisis, their lived environment, their livelihoods and daily activities, and their own sense of vulnerability/insecurity. Cash or food "freely" distributed translates into a view of the lived space, as explained in Chap.5, which is never motionless but alive and instructs action: reorganisation of the household in order to move towards aid, or to grab food which can be shared with household members, with neighbours, with kin, with livestock.

[44] This is the same for food transfers, the logic of which is that by receiving food households save money to buy food and can instead focus on replacing lost assets because of the specific emergency at stake. Thus, cash remains the implicit value of these programmes.

The humanitarian architecture put in place after the 2010-11 HoA crisis treated the drought, once again, as a monolithic and dominant event—overshadowing people's everyday life—forgetting that drought is cyclical and part of life in drylands. Finding myself amid the 2017 drought as it was slowly approaching, I could see the progressive incorporation of the droughts into the practices of my hosts. They nonetheless continued their lives, building relationships, trading, hosting visitors (including myself), and more. As I show in Chap.7, during the approaching drought, my hosts reinforced their sense of belonging and their identity of endurance and resistance in opposition to the weaknesses of those who instead flee and wail, like town people.

The response to drought implicit in humanitarian policies lacks the sentiment that emerges in the conversations about foot prints of the "enemy" (neighbouring pastoral tribes) found in the surrounding, marking that moment in life in which people have to move closer, build higher fences around their huts, escort women to fetch water, guarding animals (as discussed in Chap.4 and 5). The increasing distance between homesteads and water sources at times of drought is the result of a local algorithm measuring water and grazing needs of livestock (and people) and increasing levels of insecurity around wells. Huts dwelled closer to water sources are more exposed to the danger of raids and attacks from the enemy. Thus, the usual km-distance to water used as proxy for increasing vulnerability in development/humanitarian programmes, is flipped reflecting instead a deeper awareness of space built from within.

Humanitarian policies fail to account for the strain and fear of digging deeper and deeper wells around which families ally, share duties and crucial information, and find conviviality. Outsiders' investments in boreholes and mechanic pumps break all of this and translate in a form of emplacement—to stay put—which encloses people, livestock, as well as the lived space which stops being alive and moving, and slowly "clots" (cf. Chap.5)

The empirical chapters of this thesis present the flipped side, to follow the vantage point of Turkana herders in order to gain an understanding of resilience within, and hopefully serve the international community to find some anchors for a more attentive programming, sensitive to insights, perceptions, and voices of their targeted beneficiaries, in this case: mobile pastoralists.

As it emerges, there is not much differentiation from programmes implemented since the 1970s, confirming Brown's argument that resilience programmes tend to promote business as usual, notwithstanding the potentialities which instead could arise from new resilience thinking (2011). To fully engage with the potentiality rising from resilience thinking, in this thesis I propose to turn the tables, and stand with Turkana herders.

Conclusions

In this chapter I reviewed the early history of *Ngiturkan* and their struggle against outsiders; the roots of development and humanitarian interventions; and the paradigm shift towards resilience building in the greater Horn region and in Kenya and Turkana more particularly.

The resilience agenda in the Horn emerged after the 2010-11 HoA crisis. The new development agenda brought to light a new understanding of drylands and their potentials but ultimately failed to translate these new sentiments into new practices and interventions. Bringing some examples from the application of the resilience agenda in Turkana through the development of CIDPs, EDE's investments, and the creation of NGO consortia, resilience interventions are seemingly promoting business as usual and also portraying a limited understanding of resilience as something very tangible which can be replaced after a shock.

In 2017 the HoA was hit by another severe drought. The government of Kenya officially declared a national disaster on 10th February 2017 and by March 2017 the first humanitarian flash appeal was already launched. Since then, the situation has continued to deteriorate.

All policies and programmes presented in this chapter were designed and implemented to "trouble drought", once and for all; because "drought need not, should not, lead to famine and other disasters in the region" (IGAD 2013:13). Resilience was adopted as the tool to prepare and train local populations for the next impending drought, to prevent a humanitarian crisis happening again. The inevitable question is, what went wrong?

Besides problems related to humanitarian response, which have been addressed by several evaluation reports (including lack of coordination, miss-match with early warning systems, lack of transparency, and corruption), I pondered on the relevance of the notion of resilience itself.

In particular, to refresh my research questions, this thesis asks (cf. thesis introduction):

* What can we understand about those components of “pastoral development” currently discussed in the international development regime under the label of resilience, by switching perspective and following pastoralists lived experiences?
* How does the new understanding of resilience emerging from this change to a localised and experiential perspective relate to the contemporary ideas of resilience in policy, practice and scholarship: to what extent does it challenge, endorse or even revolutionise it?

As I found myself amid the 2017 drought, I inevitably asked myself what is lacking in our understanding of resilience in drylands, and with this thesis I propose that the current understanding of resilience is devoid of people’s own voices, experiences, and insights. The following chapter explains how I responded to this question.

Chapter 3 ~

Methodologies and Methods

Be a good craftsman: avoid any rigid set of procedures. Above all, seek to develop and to use the sociological imagination. Avoid the fetishism of method and technique. Urge the rehabilitation of the unpretentious intellectual craftsman and try to become such a craftsman yourself. Let every man be his own methodologist; let every man be his own theorist; let theory and method again become part of the practice of a craft.

C. WRIGHT MILLS, 1959

—quoted in JOCK YOUNG, 2011.



Donkeys searching for shade along a dry creek. Koomyo River/Loima. December 2016.

Introduction

In this chapter I illustrate the methodological journey of my research with Turkana herders. It was a somewhat challenging journey, with several ebbs and flows, bends and turns. I grew considerably from this study and experience, academically but also—and greatly—personally. It has been a long journey and I want with this chapter to explain why and in what ways.

The main goal of this chapter nonetheless remains to show the reader how I conducted this study and research. What approaches I followed, what methods I used, how I built my arguments, and what challenges, limitations, and ethical concerns I faced.

Drawing from frameworks of "serendipity" (Hazan and Hertzog 2011) I describe my study as following a "nomadic approach". In this approach, mobility is not only a researched object, but also the "epistemic framework" (Mezzadra and Neilson 2013)—a process of knowledge production. Mobility is my personal history, my methodology, my methods, the overarching theme of analysis, the ways to comprehend the world, and my writing.

I start by showing the journey in methodological approaches. I then show the journey through fieldwork and adjustment of research tools. I continue by showing how I have been running analysis and organised the writing of this thesis. And finally, I present some challenges, ethical concerns, and limitations which, regardless of every effort, nonetheless remain.

3.1 Methodology: a nomadic approach to research

This section explains the methodological itinerary of this study. The complexity and the broadness of the topic researched—resilience—is complicit in the "serendipitous journey", to borrow an expression used by Hazan and Hertzog (2011), I have followed during the DPhil course. I present the evolution of the main approaches adopted (from econometrics, to mixed methods, to ethnography, and critical mobility) defining a "nomadic approach to research".

*

Mobility, as an overarching theme and analytical lens, emerged inductively at a later stage of my research. However, there are many aspects of my methodology which can be referred to as "mobile" since its beginning. I now refer to my own methodology as a "nomadic

approach to research": vigilant and sensitive to changes in the surrounding environment, flexible and unsettling, adaptive and open hearted.

As a nomadic pastoralist, I did not "wander" (Barfield 1993); rather I have chosen methodological routes after paying careful attention to available information, resources, and evolving objectives (Salzman 2001); and I also followed a bit of sensorial instinct (cf. Chap.4). In the words of Hazan and Hertzog (2011:1):

> "She (the researcher) encounters incessant changes in the field which require her to be physically mobile, mentally alert, emotionally resilient and socially agile; she must be prepared to modify and revise her theoretical standpoints time and again; and she must cope with the frequent unpredictable mutations in the articles of faith as to the desirable management of knowledge".

Nomadism therefore becomes a crucial "state of mind" for a sensible progression of research, "resisting to settle into socially coded modes of thought and behaviour" (Braidotti 1994:5) and showing—as pastoral nomads do—a "continual adaptation to a changing world" (Marx 2006:92). This form of nomadism is tied with my personal story.

Trained in Development Economics from the University of Florence, I began working as a Monitoring and Evaluation Consultant (M&E) for a UN agency in Somalia. I was involved in the implementation of a baseline survey to assess resilience interventions in the region and in the development of a new resilience index through a double-stage factor analysis (FA)[45].

During that time, I developed interests in understanding more about both our findings (displaced populations were among those scoring highest resilience levels in our model) and about our computation techniques. I had applied to a PhD programme to pursue these goals.

My initial proposal questioned meanings of resilience among people in situations of prolonged displacement and has since considerably shifted. Because of my twofold goal of both broadening the general understanding of resilience and developing an appropriate measure for it, I had ambitiously prepared to rely on a combination of both qualitative and quantitative approaches. I thus designed an "exploratory sequential mixed methods" research plan

[45] FA analyses assume that a causal relation exists between a set of observed variables and latent variables. In other words, the behaviour of a set of observed variables depends on some part of uniqueness proper to each variable and something else that is related to an unobservable variable (in this case resilience).

(Creswell 2014), organised around two rounds of fieldwork: first round of field research for a qualitative exploration of resilience; and a second round of field research for the implementation of a quantitative survey aimed at the modelling of an "improved quantification method, to be more "honest" about its scope, more informative about peoples' lives, and more practical about actual policy guidance" (Semplici 2015).

There is not an epiphany moment or one major factor which explains why my research changed so considerably in the course of my DPhil. It happened more like a "drift", through a slow and yet progressive realisation that quantitative measures would have never been able to tell the story like it was emerging.

Several reasons played a role. On a more technical/logistical ground, limited funding, limited timeframe, lack of available dataset, and my limited knowledge on either drylands, pastoralism, or Turkana influenced some of my choices. Moreover, I progressively realised that the use of standard quantitative tools such as questionnaires would have been challenged by the difficulties in defining households, counting livestock, or even knowing people's actual age.

Alice Kosie, one of my friends in Kambi Lore (one of my field sites)[46], for example, once asked me how old I was. I was 29 back then. She was happy we both shared a similar age. When I asked her how old she was, she confessed to have just recently learnt to be "*something around 30*" and showed pride that "*since it has become important for the government, people now even know how old they are!*", referring to the recent practice to ask people personal information for relief distributions or enrolment in government aid programmes (17/11/2015). I have never known the age of my hosts or people I interviewed—one of the first questions surveys ask.

Beyond these practical reasons, changes in my research occurred largely because of the complexity of the topic researched which could not easily be bounded within distinctive domains and required a full immersion into people's lives.

The more I attempted to settle my own thoughts about what resilience could possibly mean, the more these possible meanings were expanding, enlarging, and reaching composite aspects of human life. They were never static, never entirely graspable. As a result, I had to keep on

[46] Cf. sec.3.2.

living, conversing, observing, documenting, participating in people's daily lives, and prolonging the qualitative phase of research into the second round of fieldwork, progressively turning my study towards ethnographic and critical mobility approaches, as explained below.

I have personally always been attracted to ethnographic immersive methodologies, openness to composite methods, and compatibility to inductive research. However, it is only during fieldwork that I recognised I was "doing ethnography" (Crang and Cook 1995) because it best responded to issues faced in defining resilience, and to my research questions: the exploration of the everyday, and the presentation of the perspectives of "insiders" on their lived environment, livelihoods, and risks (focussing on issues of food insecurity) so important for the development/humanitarian sector (cf. Chap.1).

Ethnography, defined as "situated, long-term, empirical field research" (Malkki 2007:164), explores systems of meanings from an experiential point of view (Campbell and Lassiter 2014:120), and promotes an understanding of people's world-views and lifeways in the context of their everyday (Crang and Cook 1995).

Several fundamental principles of ethnography guided my research throughout. The lines of enquiry I followed led me into the "conditions and potentials of human life" (Ingold 2011:3). The ways I engaged with people who welcomed and hosted me in their homes and villages led me to build trust and allowed experiential proximity to their lives (Procter 2019). The "situated knowledge" (Malkki 2007:163) I contributed to, whetted in the practices of long-term fieldwork and participant observation (Robben and Sluka 2007), permitted me to document the "imponderabilia of actual life" and to grasp "the native point of view, his relation to life, and his vision of his world" (Malinowski 1922:25).

The making of ethnography is undoubtedly "artisanal" (Clifford, Marcus, and Fortun 1986:6), and, indeed, I did not follow strict rules, but constantly re-invented fieldwork praxis, research methods, and theoretical predispositions following new paths which were opening in front of my eyes. I started crafting my own methodology, defined by a high degree of "experientialism", based on my experiences and those of my hosts.

Some people made this clear to me during fieldwork through their response to my restless questioning. "*Stop asking these many questions time and again; if you want to know how we live, live with us!"* (12/2015).

Hence, I started burning charcoal; shovelling goat excrement; digging wells and carrying water; herding shoats[47] and camels[48]. I learnt weaving palm leaves for fences and hut roofs; milking goats; and cleaning cooking pots with sand and my own nails. I learnt cutting fish and removing entrails with my thumbs; and repairing broken nets. I learnt cleansing maize and beans of the stones that come with them in relief bags. I learnt the taste of wild fruit and wild game. I learnt to be hungry. I gave food, I begged for food, I received relief food, and I ate it. And I walked, and while walking, I kept my attention on the eyes of herders. They were looking at mountains, grass, trees, footprints of wild animals; at clouds. They were observing how many cars were passing through dirt roads. The number of charcoal sacks piling along roads, as proof of market potential, progression of dry season, and critical health of livestock. They were noting if new buildings were under construction and were attentive to the sounds of mechanic water-drilling. And I tried to learn and bend according to a complex geometry of strain, while looking at the drops of my own sweat falling and splashing onto the ground.

To do this, I migrated. I migrated through the landscape, following my host families in their everyday errands. Mobility theorists from the mobility paradigm, call this approach "critical mobility research". One which, in order to appreciate the everyday forms of mobility in their most mundane shapes, highlights the importance of "being-there" (capture mobility in situ), the phenomenal experiences of the journeys (what people say, see, feel), and the phenomenal reactions to being on the move (Fincham, McGuinness, and Murray 2010:3).

This approach well describes the methodology of this study. It describes methods adopted, as presented in a greater extent in the next section, the choice of narrative style (cf. sec.3.3), and also the methodological journeys which guided my fieldwork, responding to the progressive urge to adopt more personal and mobile approaches to research (Elliot, Norum, and Salazar 2017; Fincham et al. 2010).

These approaches guided my fieldwork and choices of methods which changed and adjusted to the evolution of the ways I was observing and experiencing the everyday life of Turkana herders. Below I reconstruct my journey in methods as fieldwork unfolded.

[47] Expression used to indicate mixed herds of sheep and goats.

[48] The Middle East, the Sahara-Sahel belt and the Horn of Africa support a high population of dromedaries (Camelus dromedarius); they have one hump while, in Central Asia, proper camels (Camelus bactrianus) have two. In Africa, notwithstanding the difference, the use of the English word "camel'" is prevalent, even in scientific literature.

3.2 Fieldwork and research methods

My entire fieldwork spanned over a period of 19 months between September 2015 and April 2017. I spent 8 consecutive months in Turkana during a first round of fieldwork in three different field sites, 5 months of preliminary analysis (and necessary rest) back home, followed by further 6 months in the "field" for the second round of research.

Following a "nomadic methodological approach", research methods entailed moving with hosts, migrating through the landscape, and tailoring tools to different sites and evolving situations. My fieldwork was a journey. A physical journey across various study locations; and a journey across the exploration of varied tools and methods to better respond to my research questions as well as to different contextual factors in the different field sites.

In this section I describe my own process into fieldwork, starting from its early steps. I explain choices of field sites, role of research assistants, main research tools, and how these rolled-out from one field site to the other.

*

In September 2015 I moved to Nairobi, a city I already knew. Although Nairobi is a fast-changing city with a restless turnover of people who continuously come and go, I was fortunate to still know people there. Two of my dearest friends opened their home to me, gradually allowing me to settle in. Their home became mine for the entirety of my fieldwork—a safe place where to find refuge. I spent approximately two weeks in Nairobi before venturing to Turkana—where I had never been before. During those weeks I affiliated with a local institution—International Livestock Research Institute (ILRI)–and secured research permits and letters from the government to carry fieldwork in Turkana. During those weeks I also secured accommodation in Lodwar—Turkana's capital town—where I intended to set my new home during fieldwork.

The choice of field sites

Once settled in Lodwar, I introduced myself and my research to local government authorities and aid agencies working in the county. With their help, I started listing possible field locations for my study. I knew I wanted to work on more than one site in order to draw some comparisons on various rural livelihoods. A combination of geographical location,

environmental conditions, settlement histories, accessibility, and security ultimately determined my final choice.

Without any claim to be representative for the whole Turkana, the selected field sites line along a geographic gradient moving from highlands of the Uganda Escarpment towards the lowlands of Lake Turkana, passing by the vast open plains of Turkana central areas.

More precisely I worked in three sub-locations[49] (Fig.3.1):

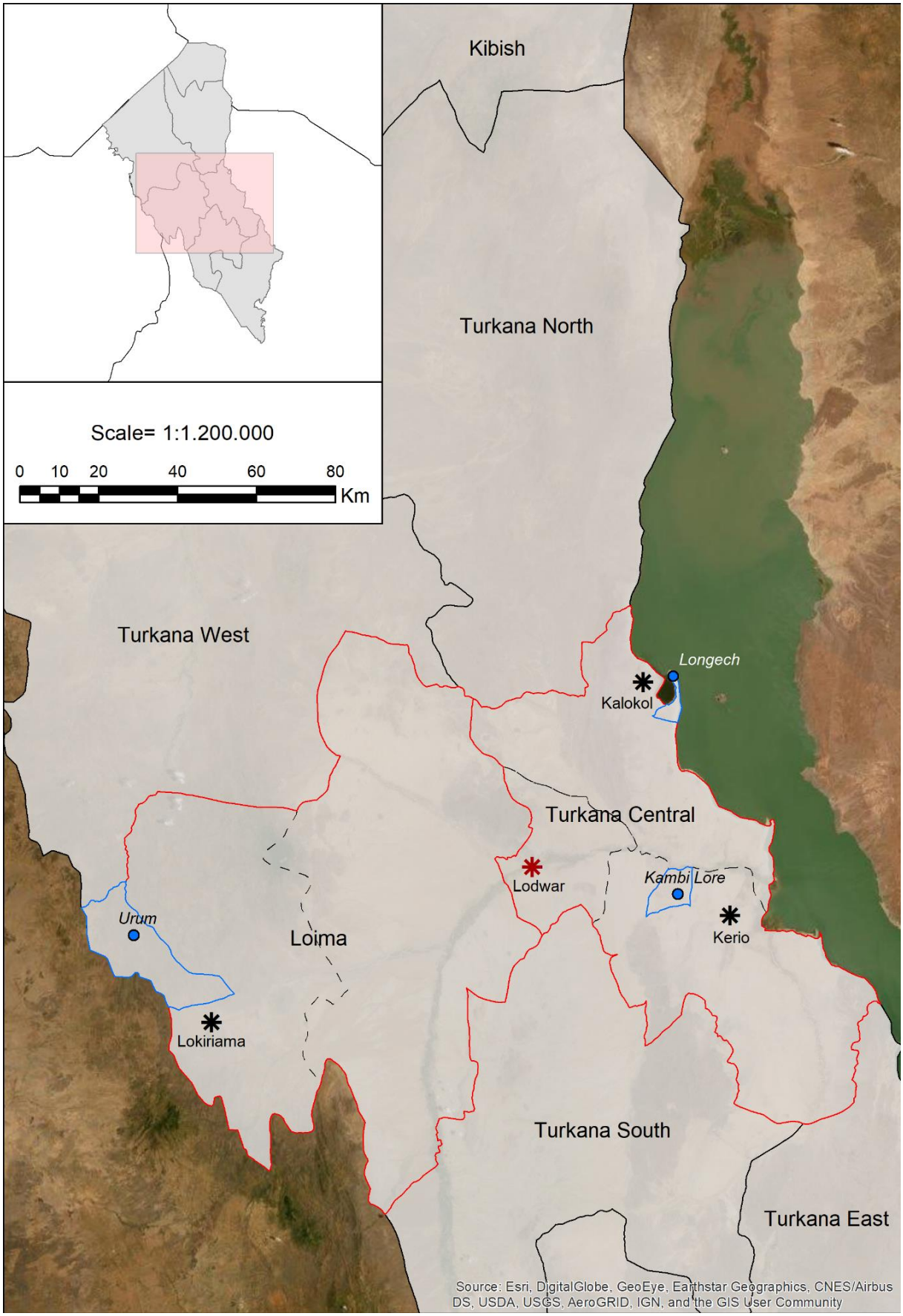
- Urum (in Loima sub-county, Lokirimama division, on the border with Uganda), a mountain area where people practice what is still considered "traditional pastoralism";
- Loregelup (in Turkana Central sub-county, Kerio division), central semi-desert low plains where people engage in camel and shoat rearing, agri-pastoralism, motorbike and pro-box services, petty trade and small business activities;
- Longech (in Turkana Central, on the shores of Lake Turkana, Kalokol division), lake site where fishing is the main livelihood.

Each sub-location contains an administrative "centre"[50] and a number of several small settlements and villages. Some consist of just a few isolated huts, kilometres apart. Some are concentrated around a farm, a water borehole, a school, an unused shop. Urum, Kambi Lore[51], and Longech are the three administrative centres, respectively in the three sub-locations (Urum, Lorengelup, Longech). Imagine a small village with some levels of administration (i.e. chief house or "office"), a dirt road cutting through, a school, a dispensary, drilled water pumps, a few shops and a food distribution point—where mainly elders and women with small children reside.

I planned several visits of various lengths to each field site, depending on the logistics of access. By the end of fieldwork, I had been four times to Lorengelup, three times to Longech, and only twice (because it is particularly difficult to reach, something I compensated with longer sojourns) to Urum. After each trip I returned to Lodwar and took some time to rest and transcribe my notes.

[49] Sub-locations are administrative units under the new constitution, cf. Chap.2.
[50] How bigger settlements are locally called.
[51] In the following pages Kambi Lore will be sometimes abbreviated with Lore.

Figure 3.1 Map of fieldwork area



Revisiting a same place multiple times provided some of the most insightful data presented in this thesis. Each time I returned to a site, I was in fact able to view each observed phenomenon slightly differently and obtain new information. However, travelling multiple times to different locations also posed operational and logistical difficulties. I wanted to assimilate as much as possible to the daily life and journeys of my hosts. This implied travelling with and like everyone else (Brachet 2012). Thus, I squeezed into pro-box cars or pick-ups (main public means of transportation in Turkana). I asked for lifts and hitch-hiked along dirt roads. I postponed, and waited, and changed travel dates (to and from field sites) depending on transport availability or weather conditions.

This experience strongly influenced my understanding of journeying in Turkana and contributed to very insightful conversations. However, it was also draining and time-consuming. I was travelling with extraordinarily heavy luggage. In addition to my own personal belongings, a first-aid kit, a stock of notebooks, general stationary, and my big camera, I was also bringing with me food shares of beans, maize, and rice for my hosts; large quantities of sugar, tea, and tobacco as compensation for my interviewees. However, because of limited funding and because I did not want to be assimilated with aid workers (cf. sec.3.4), I did not have other options for travelling to my field sites.

The difficult positionalities of research assistants

While selecting field sites, I started a process of employing research assistants. Ideally, I wanted to work with two local collaborators, one male and one female. Both had to fluently speak and write in Turkana and English, and to know the region well. They were to be employed to help with translations and transcriptions of interviews and other recorded material; with logistics and entry into the field locations; and with tailoring research tools to best fit contextual factors. I hoped they could have not only "been in action" with me, accompanying me in my field trips, but also help for a more nuanced understanding of everyday lives in rural Turkana. Ideally, they would have accompanied me for the entire duration of fieldwork in order to ensure continuity in my study and gradually develop companionship. In reality this process was very different and difficult to manage.

Firstly, I could not find a woman who had the freedom to spend weeks in the "bush". I thus only worked with male research assistants, compromising the gender balance I aspired to.

Secondly, I could not maintain a continuous relationship with the same assistant. In total I worked with seven different research assistants, needing to hire two additional transcribers, and have gone through difficult relationships.

Three left abruptly, without notice nor completion of tasks they were paid for—leaving me with months of pending transcriptions. Two of these left during a field trip. One because he received a phone call from his education sponsor whom he was required to work for. One because he could not put up with the living conditions in the field. The third one was hired by a local NGO and was granted a higher salary than I was able to offer.

Another one asked me if I had bewitched him, one night he saw I had "*put butterflies in his ears*" (20/01/2016); and another one had a physical condition for which he was constantly getting sick and needed continuous medical care. One had a very strong catholic education and felt very repulsed by pastoral livelihoods which he considered backward and uncivilised. One was allergic to beans, something he forgot to mention during the interview when I explained our diet would primarily consist of beans and maize. One confessed to be trading guns because it was an easy way to make money. Only towards the very end, during the two second last field trips, I finally met one person committed and interested in doing the job I was offering. But he could not continue any further because of other work responsibilities.

In one way or the other all these relationships proved difficult, slowed the process of data production, and were in different ways irritating. Any friction hurts the feet, while walking. However, I never lost profound appreciation for the time and support they were nonetheless providing. In agreeing to work with me, they faced a great deal of personal stigma. They intercepted most reactions towards my presence, mediated most of my mistakes while attempting to be of some help towards our hosts, shared heavy luggage and modest meals.

They also had to respond to the initial suspicions towards their role in accompanying me, sleeping next to me, and spending long hours with me. In addition, they also had to face their own positionality in a more intense way than I did. Educated, well spoken, wearing "modern" clothes, and speaking a foreign language they stood out quite visibly from the average person we lived with and had to openly admit their relative ignorance about various issues of their own culture—something I instead never needed to justify for. Finally, being myself an "outsider" (cf. sec.3.4), I was granted access to activities and spaces beyond norms and

categories of age or gender, and my research assistants with me, sometimes exposed to uncomfortable situations. I made every effort to reduce their exposure to all these issues, and to reduce my "demands" on them—resting when they were tired and giving some extra food when hungry.

Figure 3.2 Research assistant in the field



On a positive note, changing assistants several times contributed to enrich my observations by repeatedly shifting perspectives and points of views. It helped me remain attentive and dynamic throughout as synergies kept on mutating as I was replacing research assistant one after the other.

Field trips and research tools

In each field location, after arriving for the first time, I arranged a meeting with the chief and village elders who act as main gate-keepers in rural Turkana.

The sub-chief in Lorengelup, where I began fieldwork, proposed that I employ a local research assistant from the community to help us move around for the first weeks. A village committee of youths mainly hanging around the main administrative centre, not involved in pastoral activities, and constantly looking for ways to earn extra money, provided the right candidates

in terms of availability and knowledge of the area. Three youths alternated themselves in showing us around, introducing us to the various families in most villages in the location, and helping organise our first interviews.

I was armed with a composite set of various methods to use, all broadly inspired by Participatory Rural Appraisal approaches (Chambers 1994a, 1994b), including:

- Semi-structured interviews (household interviews, HH; key informant interviews, KI)
- Focus group discussions (FGD): seasonal calendar, event calendar, crisis narrative, wealth profiles
- Transect walks and Participative Geographic Information Systems (PGIS)
- Livestock questionnaire (LQ)
- Village mapping and photo-voices

Already from my second visit to the village I started feeling familiar and comfortable enough to move around with my research assistant, without the need to work with a person from the community as well. During this time, I started developing the need to get closer to people, as I started noting the limitations of my research methodology as initially planned.

Interviews

Household interviews were planned in order to understand the context of different households' everyday socio-economic profile and life histories (Crang and Cook 1995). They were structured around large sub-themes: household profile, life history, migration histories, most significant life changes, family resources, crisis narrative (for an event chosen and experienced by the household) and family responses (cf. Annex.1). I chose households according to an opportunistic sample, guided by the assistant from the community, in order to be representative of various living standards and different villages within the same sub-location.

KI were generally held with chiefs, elders, and members of community associations[52] in order to learn more about the history of the place or some other specific issues in relation to certain

[52] I interviewed members of water associations (set up to run village boreholes), women groups (set up to ask for loans for entrepreneurial activities), marry-go-rounds and saving groups (set up as informal micro-credit groups).

happenings and local responses. Key informants were purposively chosen because of their knowledge on the specific matter under investigation.

However, both household interviews and KI often fell short in capturing the full range of depth and nuance of real life (Campbell and Lassiter 2014). Interviews lasted between one and half hour to two hours and were arranged in people's homesteads. As I stopped working with a research assistant from the local community, it became increasingly difficult to find people to interview in their homesteads (cf. Chap.5) and I gradually felt uncomfortable during interviews.

I was constantly concerned about the length of the interviews and inclined to hurry up towards the end. I was also often worried about their vagueness or unclarity. I was once told by a respondent—when I entered her homestead—that she was worried I would have eventually approached her to ask difficult questions like she had heard from her neighbours. By the end of the interview she felt relieved and said that it was not as difficult as she feared, and that she was happy to have helped me for my school exercise. Yet I have since kept a subtle worry that I was emotionally overwhelming for my respondents. In addition, sit-down interviews proved to be rather static and to lessen the significance of other places, beyond people's homesteads (Kusenbach 2003:463).

Focus groups

Focus groups proved to be better experiences. They were planned in order to obtain a better understanding of some collective aspects of everyday life by drawing on seasonal-calendars (rotation of activities throughout the year), event-calendars (local histories), wealth profiles (caricatures of wealthy and poor living standards), and crisis narratives (identification of major challenges and local responses).

The size ranged between 15 to 20 invited people, plus an inevitable group of spectators led by curiosity. Most focus groups were composed by mixed gender, except from seasonal calendars and crisis narratives which I interpreted as more gender specific. It was however difficult to keep men and women separate.

Contrary to my expectations, women were well spoken and active in the discussion even in the presence of men, sometimes jokingly shutting them up, a behaviour unexpected by outsiders. This was very different from the meetings I attended held either by the local chief

or foreigner aid workers, and I considered it as a sign of acceptance and confidentiality towards my presence. Therefore, I have progressively become more relaxed about following strict rules about the gender of participants during my FGDs.

Event calendars were run with elderly people, while other FGDs were attended by participants of mixed age. In general, I tried to invite people from most villages in the sub-location, and not just from the main administrative centre where FGDs where nonetheless most often held. I ran FGD in places where people would normally gather for village meetings, like chief homesteads, schools, or central big trees. Sometimes I tried to move to less "official" sites, like along rivers or around village wells, but these attempts were generally less attended and somewhat more difficult to manage. People were constantly distracted and felt more urge to leave and go back to their errands.

Overall, focus groups provided interesting material which is used in different parts of this thesis. However, because I did not speak *Ngiturkana*, I could not entirely capture group dynamics and have a full understanding of what was going on. Some research assistants were very good at informing me of everything which was being said, but others had more troubles catching up with the speed of multiple conversations. Some of the transcribed material also contains these side details, while other transcriptions are more limited in terms of richness of narratives captured, either because of poor audio or poorer transcription quality.

Livestock questionnaires

For my second round of fieldwork I designed a livestock questionnaire aimed at learning more about livestock management and diseases (cf. Annex.2). It was run by one research assistant alone without my presence as I suspected some information was more easily shared among males. This implied that for the second round of fieldwork I travelled with two assistants at the same time. Most information produced through livestock questionnaires is used in Chap.6 to broaden classical understanding of pastoral mobilities and the relationship with livestock.

Transect walks and Participative Geographic Information Systems (PGIS)

PGIS and transect walks were very informative, highlighting the importance of walking with herders. Walking was in most locations a preferred exercise than sit-down interviews (except at the lake site). It was well received by local communities and helped build rapport

with people living in the different sites— not only those who were walking us around, but also the many people we encountered along the way. It also contributed to differentiate us from development officials, who are known not to leave their cars or chiefs' homesteads.

In each site we identified four informed members of the community (elder and young, male and female) to take us around their villages. We did not give many instructions, only asked them to show us what they deemed important for us to see and know. We covered large areas in each field-site mostly walking (only one young male informant took us around with his motorbike). We tracked our walks with a GPS, recording waypoints of all places where we stopped (i.e. water sources, grazing areas, charcoal selling sites, riverbeds, churches, schools). I took a picture for each waypoint and asked historical information associated with the area, stories, and anecdotes, as well as why it was considered an important site for the community. While walking from waypoint to waypoint we were shown wild fruits and explained their taste and growing season; medicinal plants and how they are locally used; livestock footprints and clan/brand[53] systems of marking livestock and accessing resources; livestock entrails and how these are used for rain forecasting[54]; wild game footprints and how they are feared, respected, and used for attires and articles[55]; and the like—some of the most important insights which informed this thesis come from these side talks during PGIS.

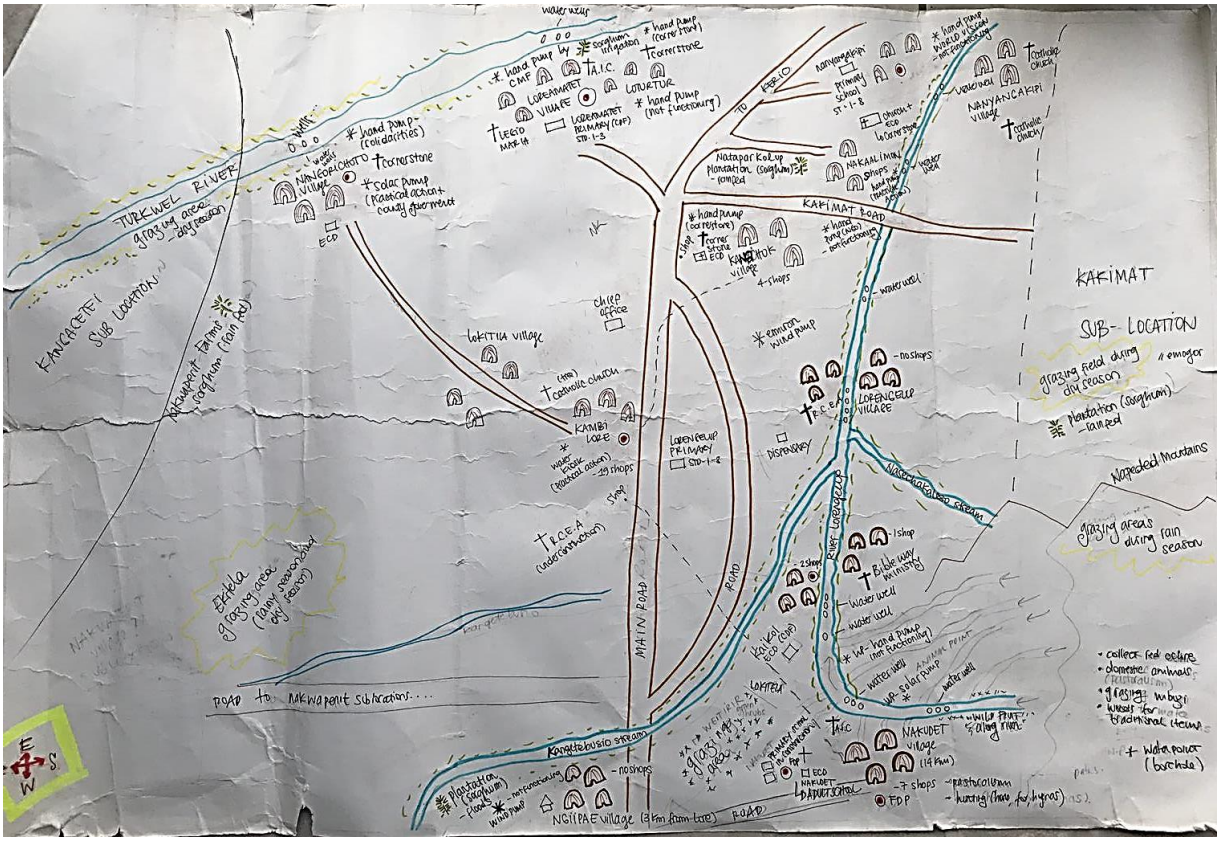
Other collective research methods: village mapping and photo-voice

Village mapping and photo-voice exercises were deeply insightful, largely because spontaneous and participative.

For each location I drew participative maps together with village elders, my hosts, and other representatives of the communities. In the maps we drew all main villages registered in the administrative sub-location, other settlements, rivers and wells, farms and grazing lands, other geographical features, and all relevant information people considered important for me to know. Though I also used those maps for actually moving across the location (as explained below), they mainly served to obtain a broader understanding of people's knowledge, perception, use, and movement across the landscape.

[53] Cf. Chap.4.
[54] Cf. Chap.4.
[55] Cf. Chap.7.

Figure 3.3 Village map: Lorengelup sub-location



In parallel, as I was slowly integrating into the social fabric of the field sites, I surprisingly noticed a positive attitude towards my camera. I did not expect to be using my camera much, as I had read about Turkana's resistance to pictures unless compensated with cash.

Perhaps because of my progressive but constant presence, or perhaps because time had changed since those writings, I was increasingly asked to take pictures of people, favourite livestock, loved places, trees, objects. While taking these pictures, and while looking at them from the camera's display, people opened up to me much more than during interviews or FGDs. They shared their memories, tastes, and perceptions almost boundlessly. Thus, I changed my ethical clearance to include the use of photographs and explored this technique further, generally referred to as "photo-voice"[56].

However, photo-voices and maps do not systematically appear in the text of this thesis because they have not significantly contributed to the analysis. I instead use narratives shared in the process, which sometimes was recorded, and other times simply noted as a scribble.

[56] Participatory action research techniques which combine photography, critical dialogue, and experiential knowledge (Sutton-Brown 2014).

Thus, maps and pictures largely remained as a starting point for learning about the ways people see and understand their social worlds, rather than a direct depiction of their perceptions (Procter 2019:135). In this thesis, I rely on pictures either metaphorically tied to the headings of a particular section, or the main argument discussed, or descriptively to represent a narrated event, place, or person. Pictures in this thesis are all my own unless specified.

By employing these more collective research methods, I gradually started appreciating the greater freedom and depth of spontaneous and "informal" conversations in comparison to more structured methods and began my journey towards ethnographic and critical mobility methodologies.

Participant observation

Participant observation remains the most fundamental method of ethnography, which I increasingly relied on. I more and more often drew on "go-alongs"[57] (Kusenbach 2003) and on my participation into the daily routine of my host families in each site.

Time with my host families was precious in many ways. We spent time simply chatting together, allowing them to freely share what they wanted and express their opinions about issues which were troubling me. We spent time cooking, milking, watering, or herding livestock; weaving palm leaves into sleeping mats and carrying them to local markets; burning charcoal and bringing it to the closest road where it was dropped and left while waiting for cars to pass by and buy it; and fetching water, firewood, wild fruit. We attended rituals and ceremonies together. I joined parts of livestock migrations in search of better pasture. We walked, rested, and worked together.

In addition to participating to their daily routines, I also more simply "went along" with my hosts or their neighbours. Through go-alongs I could participate in their natural outings and by asking questions, listening, and observing, actively explore their stream of experiences and practices as they moved through and interacted with their physical and social environment (Kusenbach 2003).

[57] Building from traditional ethnographic methods such as participant observation and interviewing, go-alongs are qualitative research tools consisting in accompanying research subjects in their daily errands while conversing on issues as they rise while in movement.

Go-alongs provided me with an account of their movements from a distinctive emic perspective (Habeck 2006). I could access their environmental perceptions and spatial practices which I discuss in Chap.4 and 5 when describing the ways of seeing and producing spaces. I could access personal biographies in a more spontaneous and nuanced way. Personal landmarks during daily routines evoked feelings, memories, as well as future visions, expectations, and dreams.

For example, only when I went to fetch firewood with my host mother in Lorengelup sub-location through a particular bushy stretch she opened up narrating and pointing to all places where they lived before they built their current homestead, not to be mistaken for a permanent settlement, and helped me understand the inherent mobility of their space as constructed, destroyed, and recreated anew by their spatial practices (cf. Chap.5). She also shared her desire to open a shop in a particular (invisible to me) juncture of her space. In this way, she helped me see what was not there, the intrinsic meanings of her space beyond the apparent emptiness and remoteness. It became to my eyes a lively place full of resources, opportunities, memories, and dynamism. She helped me *see* like the herder (cf. Part I).

Figure 3.4 Transporting water pipes



Courtesy of Dennis Ejore

As another example, I could only understand people's expectations about growth and development of their villages by getting involved in the construction of a water kiosk built in the centre of Kambi Lore, but not connected with any actual water source. We dug canals, carried long and heavy pipes left behind by a local NGO, and connected the kiosk to a solar water pump built by Practical Action in a neighbouring village. While carrying heavy pipes, women, thrilled by enthusiasm, shared with me their hopes to have water directly accessible from their homesteads. They were sure that time would soon come. I could in this way get a better sense of how economies are modelled on the base of expectations of upcoming *mandeleo* (development) and how people are navigating changes (cf. part II).

Finally, go-alongs brought to light the complex social architecture of the places I was visiting, revealing the implicit web of social relations (Kusenbach 2003). I learnt about connections among people within the same location or across locations, and I travelled through these chains of relations tying together distant places and forming an intricate net of mixed and diversified livelihoods (cf. Chap.6 and 7). In other words, I became mobile.

Becoming mobile

Progressively realising that I was in the midst of restless movements, I developed an urge to move and visit more places indicated in the participative village maps in order to experience the journey across the landscape and to hear people's stories from different angles. Thus, I started walking with my research assistant throughout the three sub-locations.

From each new place I discovered that boundaries were expanding, never settled within marked horizons. I moved beyond the administrative borders of the sub-locations to most places I could physically reach led by connections with my point of departure. I was restless and thrilled by the world which opened before my eyes. I started weaving a thread of social, economic, and spatial relations cutting through the broader landscape.

Every time I reached a new settlement, I looked for the village elders, whom in most cases I had already met in the introductory phases of my fieldwork. I asked permission to stay in the village or temporary camp for a few days, to live with one family, and basically "hang around".

Thus, I walked from Kambi Lore to Lorengelup, Lokitela, Ngiipae, Akudet, Kaikile, Kaikol, Nangorichoto, Loreamatet, Kanychock, Kerio, Nadoto, Nangitony in Lorengelup sub-location and beyond (cf. Fig.3.5).

I walked from Urum, to Nagiraa, Nakwapwa, Lobei, Koomyo, Ngichwae, Lokorokipi, Kachaikol, Lochar Ekiru, Kotido, Loreng'esinyen, Lotilo, Natelo, in Urum sub-location (cf. Fig.3.6).

I walked from Longech to Kalokol, Natirae, Impresa, Equity, Lokwara a disi, Namakoo a, Namakoo b, Soweto, Nakiwanja, Nabute, Namel, Akwamekwi, Wadite, Jaap City, Lokwar a Fisheries, Namaukuse, Ngacha, Nataaba, Echilet, in Longech sub-location, and I crossed the lake to Lotasia, Naikoku Bay, Nariamawoi, Naingol, Kaatharakin, Ngimanimania, Ngamoru Anakunja, Erus, Lokoriret, Moite (cf. Fig.3.7).

Being mobile brought a more inclusive research approach. I could participate in various ceremonies, rituals, and sacrifices—which my initial set of research tools would have obscured. I could learn about the intensification of the drought in 2017 before its official declaration and about advances of the "enemy" (neighbouring pastoral groups) by following their footprints. I could learn about the significance of hospitability, by experiencing first-hand its limits at times of intense struggle. By being within movement, I could access relationships formed when travelling. All these journeys became potential moments of inquiry and observation, contributing to this study and influencing my broader arguments about mobility.

The progress of adjusting research tools in the three sites was gradual and based on a trial-and-error approach. As a result, the research journey itself was permanently negotiated along the limitations, expectations, and opportunities that ended up constituting the actual field of research (D'Andrea, Ciolfi, and Gray 2011). Throughout fieldwork I played multiple roles: the student, the family member, the visitor, the supporter in house chores or livestock duties.[58] I was given a Turkana name, *Akiru* (rain), at the beginning of fieldwork after three repeated visits to Lorengelup accompanied by some drops of rain. I discussed my choices and questions with my research assistants and with communities and individuals with whom I interacted. My research was, in other words, a conversation and an exchange, in "co-creation with the community of people with whom I lived and worked" (Ahearn 2016:20). This approach to knowledge co-production favours lived relations rather than crystallising on pre-conceived and essentialised roles and identities.

[58] More on my positionality in sec.3.4.

Figure 3.5 Map field sites in Lorengleup sub-locataion

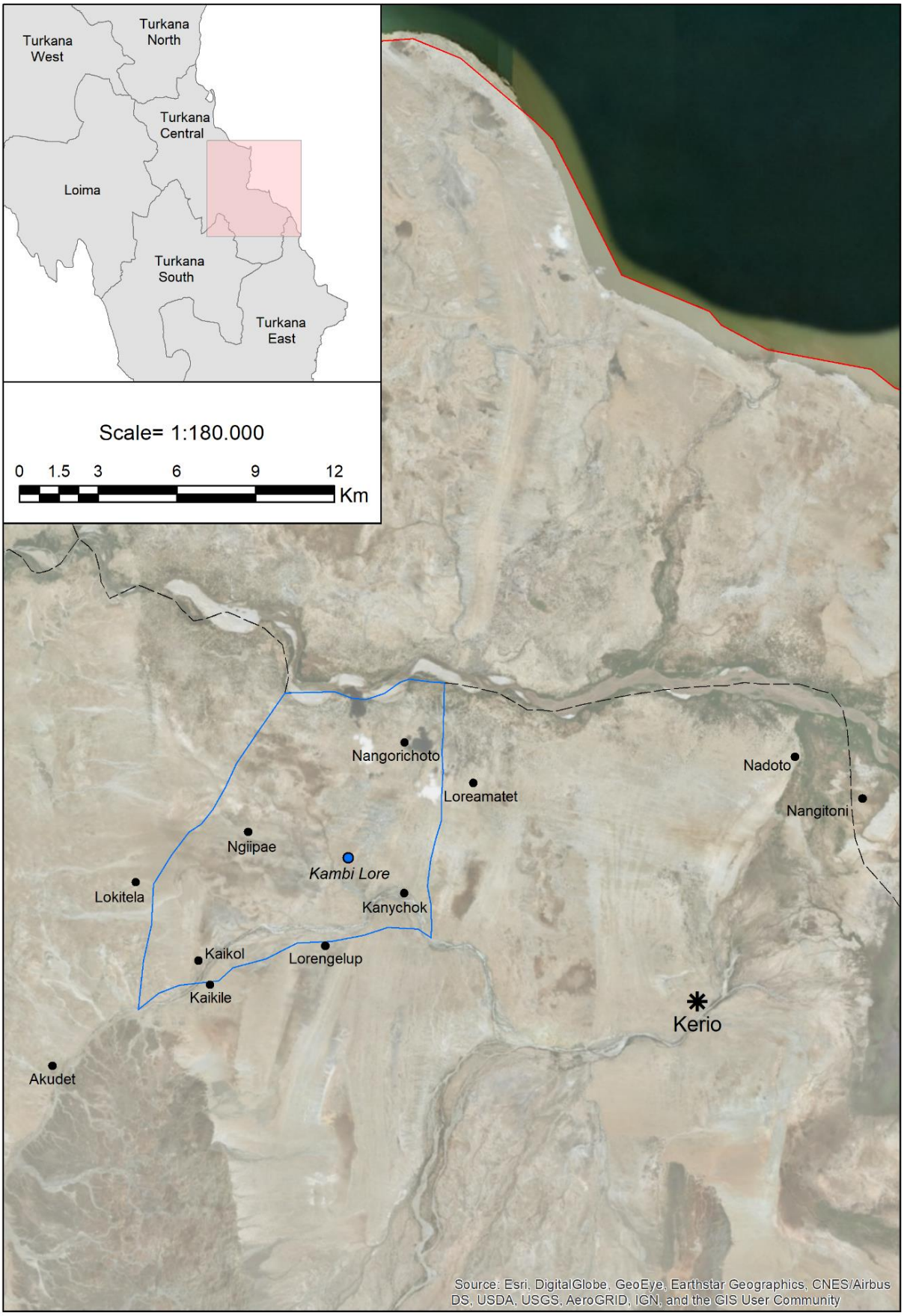


Figure 3.6 Maps of field sites in Urum sub-location

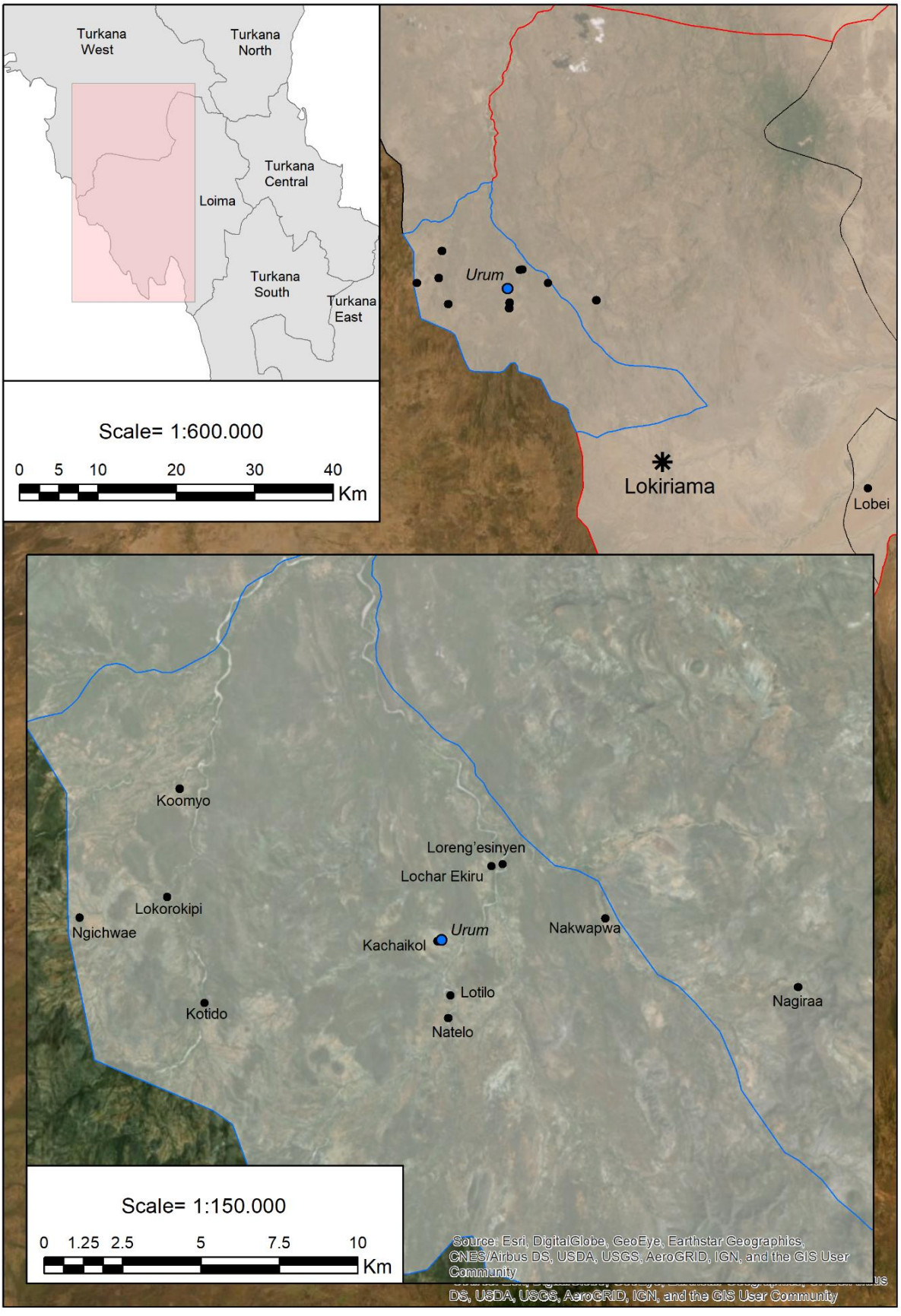
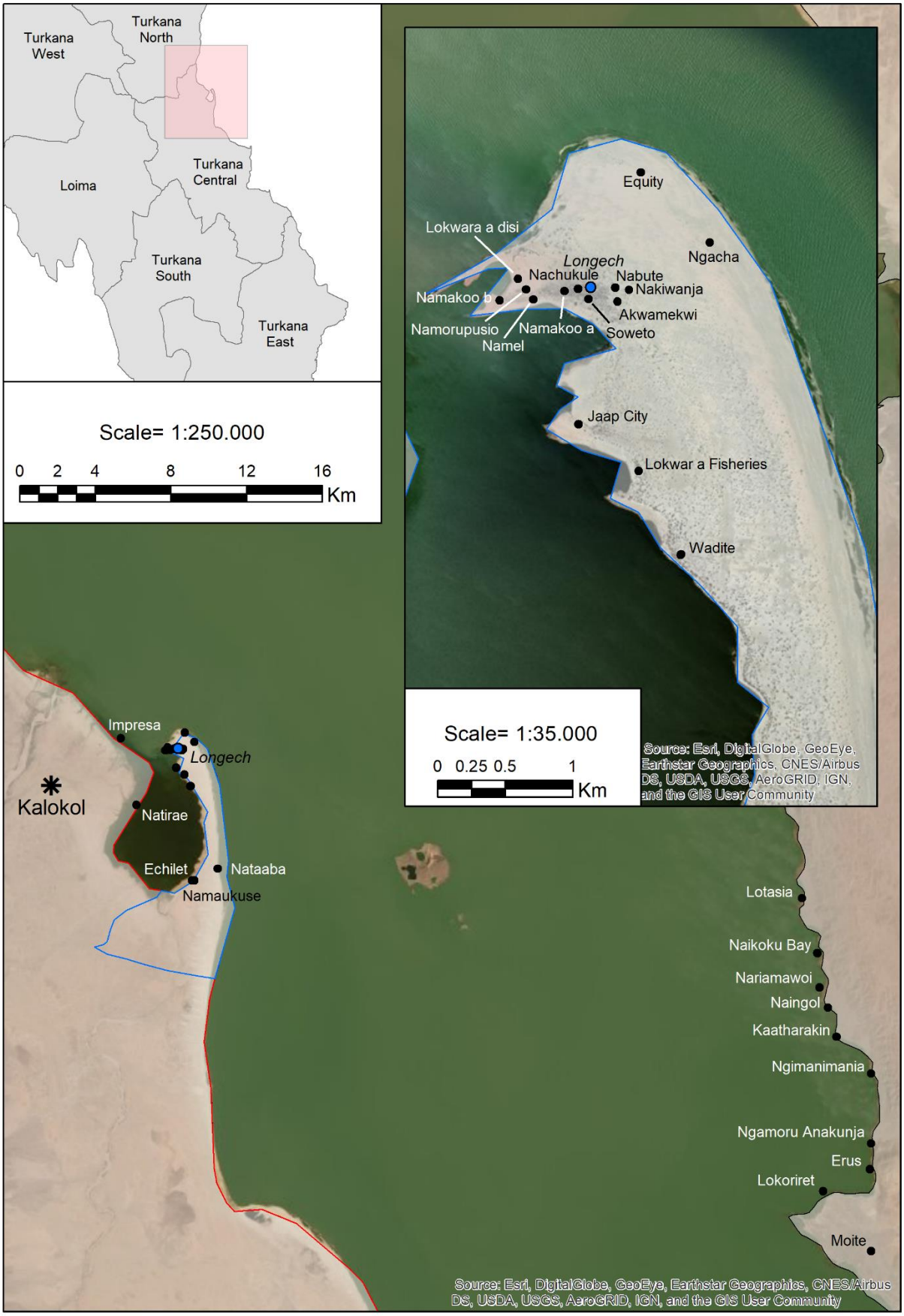


Figure 3.7 Map of field sites in Longech sub-location



The total number of sources for this study consists of 62 household interviews (HH), 59 key informant interviews (KI), 21 livestock questionnaires (LQ), 8 FGDs, 6 PGIS, 3 village maps, 92 informal conversation recorded (ICR), and 32 songs transcribed (ST). In addition, I also extensively relied on my field notes (FN) and field diaries (FD) for which it is difficult to provide a precise figure (approximately 140 transcribed pages of field diary and 100 of field scribbles/notes).

Based on this material I planned analysis and writing-up of my research, to which I turn in the next section.

3.3 Analysis and writing

Analysis and writing are fundamental components of research, holding great implications for the presentation of research findings. Since the reflexive turn in anthropology, there has been an increasing attention to interpretative analysis approaches and new forms of ethnographic writing, sometimes referred to as a "literary turn" (Robben and Sluka 2007). These approaches have inspired both my analysis and writing as presented in this section.

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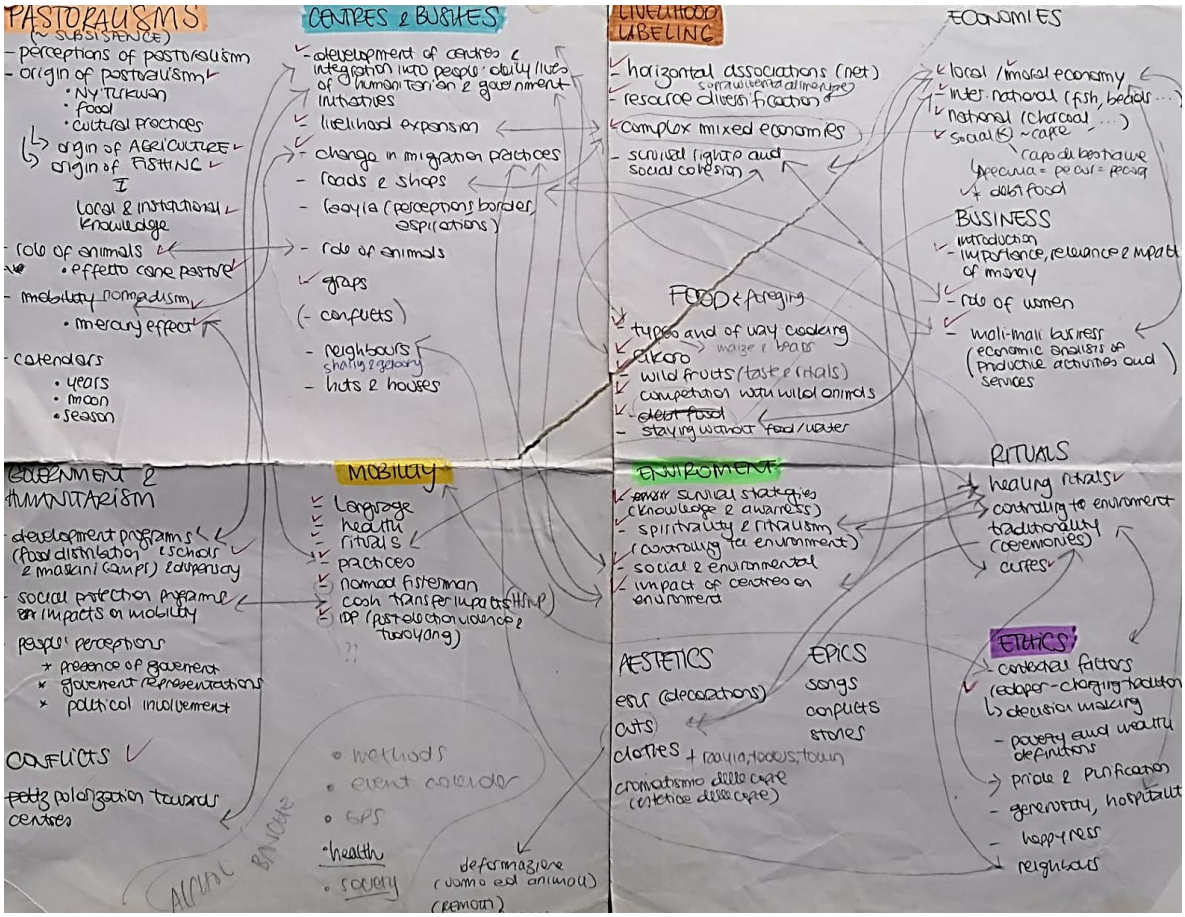
Once back in Oxford I began the slow process of organising, coding, analysing data and writing-up. By that time, I had given up on the quantitative approach to my research. I have instead followed what can be described as an inductive and interpretative approach to theory (Geertz 1973; Glaser and Strauss 1967). I thus proceeded to build "patterns, categories, and themes" from the bottom up by "organising data into increasingly more abstracted units of observation" (Creswell 2014). I have roughly followed the steps below, though the journey through analysis and writing was in reality very "messy".

Ideally, collection, coding, and data analysis should all happen simultaneously. However, while doing fieldwork I was already doing too many things at the same time, including making sure we would eat some food in the evening (cf. sec.3.4). While back from each field trip I spent most of my time transcribing notes, running after my research assistants, and planning next trips, including thinking of which research methods to employ, which gatekeepers to contact, organising travels to the field site, and procuring food and gifts for our hosts. Very little time was therefore left for simultaneous analysis and reflection.

In this regard, the break between two rounds of fieldworks was precious. During this time, I could in fact sit down, re-read my research questions, and write all my answers down—almost in a stream of consciousness. Only afterwards, I started reading and diving into all the material I gathered, including initial statements, diaries, field notes, and I mapped emerging themes (cf. Fig.3.8).

From this stage three main themes slowly emerged, namely environment/space, livelihoods, and food security. Mobility, as the overarching analytical and conceptual theme, was still hidden. Even if I did not start doing actual coding but more trying to get a sense of what big themes were emerging, I still used this early map of themes to scribble a general outline of my thesis in order to direct my attention to possible gaps in my knowledge. This helped me design the second round of fieldwork.

Figure 3.8 Early code map



Once back from the second round of fieldwork I started taking more structured notes and began coding (Bazeley 2013). Grounded, inductive, and interpretative anthropology involves generating categories of information on the basis of emerging information from the data produced. I first started a process of "open coding" (Strauss 1987) not led by significant prejudgment or theories. While working through these codes and when I started seeing some connections, I slowly started developing more "theoretical codes" (Strauss 1987). Then I organised all my data into NVivo and started coding it by referring to these emerging themes, as well as sub-themes as they developed during further analysis. This implied working back and forth between themes and data until I established a more or less consistent and comprehensive set of themes.

However, coding never really ended. Once codes felt slightly more stable, I went back to my data, this time hard copy, and colour-coded it again, while also starting to write-up. The process of writing greatly contributed to generate, interpret, and shape my ideas and thoughts, changing the ways I was making sense of my material. Till the end of my writing I kept referring to my data, reading, exploring, finding new arguments and related themes. Analysis, writing, and coding melted together in a single long activity which can be better described as an attempt to comprehend and let the story behind my data emerge.

The story arose out of the interconnection of various codes. As I started writing, I realised this was a story of mobility.

Mobility was ethnographically explaining the ways my hosts looked at their environment and living space and the ways they were involved in its construction and destruction (cf. Chap.4 and 5). Mobility was explaining their livelihoods—beyond the most typical search for pasture and water associated with pastoralism. Rather, their mobilities were various and based on a wide array of considerations, within and without pastoral communities, their animals, and the resource base on which they rely on (cf. Chap.6). Finally, mobility was explaining the capacity to navigate across various imagined social worlds as figuratively described in contrasting food behaviour between herders and town people (cf. Chap.7).

While mobility was emerging as an explicative variable, I began to ask myself how I could represent mobile experiences. What representational figures could I draw on for the description and analysis of movement without crystallising it (D'Andrea et al. 2011)?

With my writing, I share the same goal announced by De León in his recent ethnography of Mexican migrants crossing the Sonoran desert into the USA: "By drawing on specific details told me during fieldwork and filtering these descriptions for readability and flow, I aim to bring the reader phenomenologically closer to the everyday life in the desert" (2015:43). Agreeing with Holtzman, I believe that this approach to writing renders my accounts more faithful to the realities of the field and more, rather than less, scientific (2009:57).

I thus decided to use "mobility" also as my approach to writing. The four empirical chapters unfold along a reconstructed journey which spanned over the entire 19 months of fieldwork. Journeying becomes a writing style, in order to avoid producing static accounts of mobility, having no intention of "capturing mobility" but rather letting it move. Journeying mirrors my experiences in the field and the "junctures of wonderment, indeterminacy, and uncertainty of the field reality" (Hazan and Hertzog 2011:2). Finally, journeying is an analytical tool to reiterate the significance of mobility, to express, represent, and embody mobility in text. Journeying is an epistemic framework which ties writing to the interpretative process and leads the reader to the heart of my main argument: resilience is about experience and mobility.

I now turn to present some of the challenges, ethical considerations, and limitations of this study, before—in the next chapter—beginning the journey with the Turkana herders.

3.4 Challenges, ethics, and limitations

Though progressively turning towards ethnographic approaches, the complexity and the challenging nature of my fieldwork made me ultimately question some of the underlying assumptions and axioms of these approaches. In this section I express some of the challenges I encountered which made me question the "properness" of my ethnographic fieldwork, how I tried to turn these challenges into something significant for my study, and also some of the ethical concerns and limitations which nonetheless remained.

*

Ethnography insists on a "purity" of emotional and physical investment in the field which alleges to a historical "hierarchy" of "proper" fieldwork practices (Brachet 2012:3; Gupta and Ferguson 1997:13). A good anthropological fieldwork is associated with long-term continued sojourn in the same place, living with the same family, mastering the local language,

and assimilating as much as possible with the local culture, in order to transform "otherness" into "sameness".

These conditions hardly apply to my fieldwork. I have worked in multiple research sites, lived with many families, talked and interviewed many people of whom I did not always know the personal background, I have never learnt the local language—*Ngiturkana*—and I have always been visibly and politically different—an "alien".

Fieldwork in rural Turkana with pastoral households is draining in many ways for outsiders. It entails enduring hotness, harshness, thirstiness, and hunger; marching long hours under a hot sun with no promises of food or water; and managing close interactions with animals and insects I would have happily avoided (i.e. snakes, scorpions, spiders, sneaky squirrels[59], curious hedgehogs[60]).

I had to find a balance between "full-immersion" and my physical resistance under those conditions. I organised field trips to my various field sites for a length of time which ranged from two weeks to approximately one month (a time beyond which I was exhausted and needed rest). Several times I have found myself asking what the purpose of such strain was, if my assistants or I were too tired to even stand up to observe a certain happening, participate in an evening ritual, or look for clarification on certain questions.

The difficulty to manage personal relationships during fieldwork was also overwhelming. I often related to Powdermaker (1967:53) when she says: "Why am I here, I asked myself repeatedly…what am I doing at the edge of the world….there seemed to be no adequate reason: anthropology, curiosity, career—all seemed totally unimportant" (in Davies and Spencer 2010:87).

In addition, having never learnt *Ngiturkana* reduced the possibilities of full engagement in personal relationships with my hosts, which were always mediated by an interpreter. Only with very few people, I reached a level of friendship and confidentiality which dismantled the enormous language and cultural barriers otherwise separating me from anybody else for the entirety of fieldwork. All my attempts to assimilate into the local culture by mingling, "hanging-out", and participating in the daily activities of my host families were thus mediated

[59] Cf. Chap.6.
[60] Cf. Chap.7.

by my assistants and ended up highlighting our “otherness”, more than “sameness”; and were largely (and sometimes frustratingly) received with laughter. In other words, I was and remained an “alien”.

Despite my progressive integration into the daily routines of life at pastoral homesteads, milking livestock, fetching water, herding cattle, shoats, and camels, fetching firewood and burning charcoal, and sleeping outdoors lying on the ground with livestock hides, I remained an alien.

As requested by social norms and by my preoccupation not to be of any burden on the budget of my hosts, I shared food and other supplies from town with my host families to compensate for my stay; but I made every effort to eat the same meals they would have had otherwise—which meant I survived on one single modest meal a day composed of a combination of maize flour, beans, maize, or rice. Nonetheless, I was an alien.

Travelling in and out my field sites to transcribe notes, re-stock food supplies, and recover some energies, also contributed to my alien position—even though journeying is a common part of life for many people in rural Turkana (Rodgers 2018:29). But I was different.

I was different because, while I had progressively adapted to drinking water from hand-dug wells and raw blood from livestock, I have never felt ready to undress like a Turkana woman. I was wearing hiking trousers, and hiking boots, and long-sleeve t-shirts. I was different because I had a GPS, a satellite phone, a camera, and a return ticket for rapid exfiltration. I was different because I felt different; I did not want to, and could not, be similar.

My alien position caused some distress. I often felt uncomfortable, tired, hungry, lonely. It revealed my own “fragility” (Enria 2018). Such fragility is shared by most *wazungu* (white people/foreigners) venturing in what is perceived as remote land in interior Turkana. Prolonged exposure to these complex forms of fragility is not common among the expat community in Kenya, who often remain anchored to their first impressions “in the field”. This observation made me often wonder whether “outsiders” reproduce their own fragilities into the lives of the host communities of their programmes: i.e. the fact that outsiders feel thirsty is reflected in water management programmes and intensive borehole drilling—while water has seldom been a problem during my fieldwork even at the peak of the 2017 drought.

I now believe, more than in "ethnographic purity", that since fieldwork affects the very instrument (the anthropologist) through which data are gathered, the representability of data depends on the "strategies to find oneself" (Davies and Spencer 2010:83), or, in other words, it depends on the ways our alien positionality is managed during fieldwork (and after, in analysis and writing-up phases).

My main strategy to find myself during fieldwork was to work with my otherness. Once I accepted I would never assimilate but only gradually and partially approximate (becoming something still different from my hosts, but also different from the "original" me at the beginning of fieldwork—a sort of alien 2.0); once I welcomed and joined the laughter at my attempts to dig wells, or herd livestock, or pronounce a few words in *ngiturkana*; once I accepted my position as an "outsider"—only then, our differences thrilled.

Differences nurtured reciprocal curiosity. Fostered interests and need for reciprocity in learning about our different lifeways. It created a "space of convergence, recognition, and empathy" that I shared with my hosts (Scheper-Hughes 1995:419), and space for identity negotiation.

The fragility I felt because of my alien position was crucial for the understanding of the local articulation of resilience in the context of everyday pastoral life in Turkana. It reshaped how I think about "the field", reflexively. It contributed to the questions I have asked. It allowed me to engage in the "complexities and nuances of life" (Enria 2018). For example, the hunger I felt, was not equally felt by my host families. As discussed in Chap.7, their hunger held a complexity of meanings around identity and belonging, I could only understand by feeling hungry, *differently*.

*

In addition to these challenges, I constantly reflected on ethical issues posed by research in a distant place from what I would normally call home.

Ethical questions arose throughout the entire research process from identification of research problems (Creswell 2014); to the relationship between the researcher and the new social context where she carries fieldwork (Bardelli 2019); and to intertwined issues of power, positionality, and reciprocity, consent, harm, and trust, confidentiality and anonymity (Mackenzie, McDowell, and Pittaway 2007).

Though not inclusive of all ethical issues which fieldwork opens, I lay below some reflections on ethics stemming from my positionality, namely: management of expectations, ways to reciprocate, power dynamics in the field, asking consent, and reliance on research assistants.[61]

My positionality as "outsider" was reinforced by both visible factors (being female and white) and by non-visible factors (un-married, perceived as wealthy, potentially influential, and associated with government or NGOs). The awareness of my positionality played out at many levels. It created a constant sense of guilt, not to be able to reciprocate enough. It created a sense of impotence, not to be able to have a significant impact on my hosts' lives. Rather I often grappled with the implications of my arguments against a language of survivability and vulnerability to deliver the wrong message that we should not worry about the lives of herders—because they are good at herding. In seeking to challenge narratives of victimhood weaved within development reports, I do not intend to over-ascribe a politics of agency (Procter 2019:149). My goal is instead to illuminate another point of view, another perspective, to help us better understand contextual realities… "but, who am I to determine the conditions of what makes a situation liveable or bearable?" (Procter 2019:148).

Inevitably, my presence in the "field" created expectations of some sort. Despite travelling as anybody else, despite staying for long sojourns and returning time and again, despite mingling with people as much as I could, some would nonetheless expect some direct benefits from speaking to me. Indeed, I could have made any effort to prevent this, but "it is not ultimately possible to control people's hope" (Enria 2015:37). This not only altered the process of data production, but also posed ethical questions towards the relationships I was developing in the villages.

I managed these expectations by constantly limiting the NGO narrative often associated with my investigations, like: "*She is here to understand our problems and inform the government of what we need*" (FN, Lorengelup, 09/12/2015). It was thus important we reiterated we were not NGO workers and were not bringing material benefits at the time, nor in the future. It was important to be introduced by relevant authorities and taking time to talk with people in public spaces to let them ask questions and allow us to explain we were independent researchers working on a school assignment. I have found that framing my study and thesis as

[61] Other issues are the principles of beneficence, integrity, respect for persons, and do no harm (Mackenzie 2007).

a “final exam” was the most relatable way for people to understand our presence. My thin body and un-married status facilitated the comparison with students, and largely resulted in being labelled and considered a “young girl”.

I did not compensate interviewees for their time in the same way NGO workers would do. However, I tried to reciprocate in other ways and made every effort to lessen the “burden” of my presence on the finances and daily routines of my host families. I always brought food and gifts for my hosts, integrated in their daily activities, and tried to be of some help bringing water back to the homestead from the nearest well, or watering livestock, or fetching firewood. Nonetheless, I never underestimated the fact that for me those activities where part of the “luxury” of experiencing being a herder, but ultimately not being one of them; plus: free to go home, to town, to my books, to anywhere, when exhausted.

I gave tobacco, sugar, and tea to my interviewees and FGD participants as compensation for their time; and asked myself whether it was ethical to give food considered addictive. I sometimes bought liquor or brew for people walking with us. I tended to follow what is considered the norm in the context and told myself not to judge or criticise, but I still wondered whether giving cash would have been more appropriate or more helpful.

I brought back pictures to all recognisable people in printed copies. However, if most people greatly appreciated this gesture (especially my host families), others expressed gratitude, but also politely confessed not to know what this was for—why was I giving them a such thing?

Apart from these small gestures, I will never be able to give back the time, resources, and support I received during fieldwork. I tried to be as faithful and respectful as possible in the stories narrated in the four empirical chapters that follow, as I see honesty and ethical writing a way to reciprocate (Procter 2019). And once I will discuss this thesis, I will return to all families I lived with to inform them about the evolution of my studies, bring some other gifts, and spend some time with them without pressuring them with too many questions. Beyond this, there is not much else I can do—for now.

Figure 3.9 Family portrait[62]



Consent is one of the ways to mediate and negotiate some of these power imbalances, but likewise problematic. I was always honest and open about the purposes of my presence and study, reiterating my student status and asking time and again permission to take notes, photographs, or recording conversations. Before starting interviews, people were informed about the purposes and questions of my study and only then asked if they agreed to participate.

Given high rates of illiteracy and the fact that signing documents raises both suspicion and expectations to be enrolled in some humanitarian programme, I could not ask people to sign consent forms, and this was mainly sought orally. I have never considered sufficient asking consent only once and adopted an iterative approach to consent (Morrow 2009). However, this was only truly possible with my host families or those people I have spent more time with. Nonetheless, my study also draws on many informal conversations with people I met only once around water wells while watering my hosts' livestock, or in markets, shops, pick-ups and pro-boxes, and the like. To these people I could only explain once who I was and what I

[62] Found in the hut of one of my host families a year later I gave the picture, when I returned to visit them.

was doing and implicitly deduced their consent from their willingness to talk to me. For all I guaranteed confidentiality and anonymity by coding data sources or anonymising their names.

Seeking consent was greatly facilitated by my research assistants. However, reliance on research assistants was also inherently problematic. Have I ever put them in dangerous situations? I have constantly been worried about their health and general wellbeing during field trips, and followed up with medical check-ups in case something was disturbing them afterwards (including paying for visiting a healer to cure the curse one of my research assistants lamented, once we agreed that it must have been one of the local seers and not myself putting butterflies in his ears). More generally, I wish the university gives us more support in training and preparing for the relationship with research assistants and support in case complications rise. The role of research assistants is in fact somehow "taken for granted" but never fully explained, including what working contract we can issue to safeguard their wellbeing as much as our own during fieldwork.

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Having tried my best to limit the aforementioned challenges and ethical concerns, some research problems remain. For instance, my otherness can be partly explained by my limited training in ethnography and my limited previous knowledge of the context (Turkana) and the subject (pastoralism). I agree with Malkki on the importance of ethnographic training when she compares ethnography to jazz. "Ethnography requires a similar commitment: to get to the point of improvising well, the ethnographer, like the jazz musician, must have devoted countless hours to practice and preparation of various kinds" (2007:182). Though I have always been an "eclectic economist", drawing from multiple disciplines and mixing qualitative approaches with quantitative ones, and have done extensive fieldwork before in rural Malawi, Somaliland, and Puntland, my work was ultimately directed towards an economists' audience and was based on a different training than what I was doing, and learnt to do, in Turkana.

In addition, I have learnt through fieldwork, that mediation by my assistants was crucial but not innocent. Translation and concentration skills played a role; interests and positionality of my assistants too. As a result, information I draw upon in this thesis is inherently altered, both positively and negatively. In this regard, time and funds available limited the possibility to offer

higher salaries to my research assistants[63]; to have all recorded materials transcribed; to prolong my sojourn or facilitate some of the logistics, in turn reducing some of the struggles we faced.

Also, being the only responsible person for every single aspect of research (and being a woman), from questions to logistics, funding and accounting, human resources, data production (i.e. note-taking, recording, taking pictures, participating in daily activities, engaging in conversations) and making sure we would have at least one meal per day in the evening, was overwhelming and at times affected the quality of my notes/data.

Ultimately, knowledge production is "partial, subjective, fragmented" (Scheper-Hughes 1995:420), and I am not under the misconception to have reached a complete and detailed understanding of the lives of herders in Turkana.

Nonetheless, I hope that, by having always been aware of these limitations, having extended my fieldwork as much as I could, and having triangulated information—for example having different people to translate and transcribe recorded conversations—and without any claim of representation, this study does justice to the lives of Turkana herders whom have taught me so much about hospitality, struggle, hope, and laughter.

[63] I paid the equivalent to the high-end of salary range in public works, which however was considerably less than NGOs would have paid, and what my assistants expected.

PART (I): SEEING

Possibilities are limited only by the power of the imagination.

TIM INGOLD,

2000.

Part (I) of this thesis is a response to the perceived problem of pastoral environments. Adopting a crisis narrative, as presented in Chap.1, drylands are largely seen as fragile, scarce, remote; fundamentally a problem, subject to endless crises.

Chap.4 provides an ethnographic account of the "disequilibria ecology" literature which grew around the ecological problem of drylands' variability since the 1980s—the so-called U-turn in ecology—which frames disturbances as ordinary and equilibrium as extra-ordinary (cf. Chap.1). Most of this work is very "scientific" concentrating on figures of remote-sensed vegetation indexes, yield of natural forage, plant biomass, above ground primary production, rainfall zones, coefficient of interannual rainfall variation—as a basis of evidence to challenge arguments of Clementsian/equilibristic views of socio-ecological systems and demonstrate the irregularity and uncertainty of drylands. With few exceptions[64], little space remains in this literature for the knowledge "on the ground", for the perceptions and understandings of herders and the people of desertscapes of their own lived environment. I thus aim to contribute to this literature, by adding nuanced details on the experience of variability from the perspective of herders who see and navigate (cf. part II) it. In so doing, I also hope to contribute to the resilience scholarship, by touching upon a missing dimension: "sense of place" (Feld and Basso 1996).

To see like the herder entails re-thinking about our *own* ways of comprehending human actions, perception and cognitions, and about our very understanding of the environment and our relations and responsibilities towards it (Ingold 2000); with Mbembe and Nuttal's words, it entails starting a project of "defamiliarization" (2004). To see like the herder entails a new way of thinking. Leave our conceptions, leave our homes, and place ourselves "down below" (de Certeau 1985) at the eyes' level. From this renewed position, I could experience the variability of space and see its nomadism. Space itself moves, and mobility becomes a quality of space.

Chap.5 expands the U-Turn literature on dryland ecologies which normally focuses on socio-ecological components of the environment to also include only social, economic, and political factors of variability. Aid, like rain, following the same laws of uncertainty, generates the mobility of space as produced and re-produced by the movement of its inhabitants.

[64] See for example Krätli and Schareika (2010).

Chapter 4 ~

The nomadism of space and the poetics of herding:

Seeing, Experiencing, Perceiving



The dance of the well. Lorengelup/Turkana Central. November 2016.

Introduction: the nomadism of space

"There used to be a time I could see the lake, and even beyond". Akamaise, once described her visits to her brother up the mountains in Lothagam in Turkana central, not too far from the eastern shores of Lake Turkana. When the sky was clear from clouds, she could see the other side of the lake. She could see Loiyangalani, and she remembered laughing at the reflections of metal shacks. This nice image was broken by concern in her face. "*I was scared"*, she continued. She described long waves shaking the surface of the lake, as if these could reach, take, and drag her into the water. "*I do not wish to go close to the lake"*. But she concluded by hoping lake waters could open to let her pass and reach the other side (19/01/2016).

Akamaise is the youngest of the three wives in my host family in Lorengelup sub-location. Currently settled at a walking distance (approximately 5km) from the main centre, she lives with the other two co-wives, their kids, their common husband, and a number of shoats and camels—whereas their cows stay with some family friends along the lake shores where grass can be found. It is a relatively wealthy family. Although mainly living a pastoral life, they are also engaged with other activities including charcoal burning and petty trade at local markets.

Akamaise was one of the best story tellers I ever met, enjoying talking, chatting, and showing me around while holding my hand. The night she talked about lake Turkana was not the first time she mixed her real-life experiences with mythological images. Unfortunately, that night, we did not develop our discussion as far as to trace her knowledge of the Bible; nor did we talk about why she cannot see the lake anymore: either she no longer visits her brother; or something has changed in the landscape (taller trees, the lake has withdrawn further, buildings or constructions on the way, etc.); or she has never been able to see the lake from Lothagam mountains.

Either way, she is framing her notion of space. Her space is extendable (beyond what is reachable in her everyday living); her space has borders which can be crossed at danger (or in some cases by negotiations if it implies entering someone else's land); her space is fluid and mobile being produced only after having experienced it (the other side of the lake becomes a real place only if Akamaise is able to cross it).

This chapter[65] is an ethnographic study of *desertscapes*, exploring: what it means to inhabit a desert? how humans relate to their environment in making a living? How they see their lived environment? How they learn about their landscape and experience it? How they represent it, and how they perceive it?

The goal of this chapter is to gain another perspective on the lived environment of Turkana herders—different from what is generally portrayed by outsiders. It enlarges the notion of the environment to that of "space" to allow for a wider comprehension of the lived context including socio-ecological components and relationships that individuals and groups forge between themselves and their lived environment.

In this introduction, I position my analysis in the theories of relational geography (Murdoch 2006), mobile-space approaches (Walther, Howard, and Retaillé 2015), and in the anthropology and phenomenology of landscape (Feld and Basso 1996; Merleau-Ponty 1945), and provide a brief overview of the chapter.

*

Space is a broad concept belonging to a vast literature. It was long understood as the physical location where the studied people earn their livelihoods (Basso 1996; Hirsch and O'Hanlon 1995; Miggelbrink et al. 2013; Pandya 1990), generally associated with the "remote" (Harms, Hussain, and Newell 2014). This revealed a use of the terminology of space as universal, everywhere and anywhere the same (Tilley 1994); the realm of immobilisation, a "surface, continuous and given" (Massey 2005:9). Space was seen as a container divorced from a subject-position (Livingstone 1992), a static nothingness which begins with some empty and innocent spatial spread, waiting for human activities (Casey 1996).

From the end of the 1970s, elicited by the influential work by Lefebvre (1974) "*Le production de l'espace*" (translated in English in 1991—Lefebvre 1991), the understanding of space has been challenged, revealing the urge for a more grounded "ontology of space" (Sayer 2004). Theories of relational geography emerged aimed at pursuing an alternative imagination of space away from stasis and closure, and settled in a different narrative of "heterogeneity, relationality, and openness" (Massey 2005:10). Space started being seen as a product of

[65] Parts of this chapter were published in a chapter for the ILO's compendium about indigenous knowledge and climate change (Semplici 2019).

interrelations, constituted through interactions, a “meeting place” made of multiple relations (Massey 1991, 2005). In opposition to a lifeless space, the simple “negative of time” (Ingold 2000:142), relationalism gave room to the understanding of dynamic processes of change (Murdoch 2006). Space could no longer be considered an empty container, but something only provisionally stabilised, made out of inherent and coexisting heterogeneity (Massey 2005).

On these premises, mobile-space approaches developed in geography and anthropology (Retaillé 2013; Walther et al. 2015). Rejecting a “metaphysics of sedentarism” (Malkki 1997) grounded in the tradition of maps (points, lines, and areas) and based on a “sedentary perception of the world” (Thrift 2006), mobile-space approaches started instead focussing on flows, exchanges, and “circulations” (Castells 1999)—framing space as under incessant becoming, never complete but always under construction; and highlighting the ongoing production of space, imaging the world as in-flux, “continually remade anew” (Adey 2006:90).

Inspired by these views, I nonetheless differentiate my approach to space reflecting on movement as constitutive of place, of space itself, not as a metaphor for the movements which occur over ground. Most of this literature, in fact, focuses on “places of movement”, co-implicated in complex networks which flow on the surface (Büscher et al. 2011); while I literally talk of a space which is in motion. In addition, I frame mobility as a “quality” of space; while in mobile-space approaches, especially for the case of drylands, movement is still a matter of survival, ultimately reiterating (perhaps involuntarily) a sedentary primacy—mobility remains, in other words, “a survival condition” (Retaillè 2011:62).

Conversely, I argue that “folded and animate” (Thrift 2004:584) desertscapes are alive, themselves in movement, generating movement, and generated by the movement of biotic organisms and abiotic factors. The movement of space is the origin of life. For this argument, I primarily draw on Ingold and his vision of life as a “phenomenon of lines” (Ingold 2011:12) produced by every human and non-human being moving in the world. He describes every organism (human and non-human) as a moving line, interweaving with other lines (Ingold 1993, 2000, 2007, 2011). Organisms, as they move, lay physical trails in the world. Where they meet, trails are entwined, and life of each becomes bound up with the other.

In these terms, my analysis follows the line of enquiry set by Feld and Basso (1996) searching for ethnographic accounts which represent places as sensed by people who live in them, fashion them and are fashioned by them. I also draw and contribute to the phenomenology of place literature (Casey 1996; Heidegger 1975; Merleau-Ponty 1945). Here, my attempt is not to argue for the primacy of either space/place/landscape (which I might at times use interchangeably) but to argue against the assumption of a static pre-existent blank space, denuded from human and non-human activities. This perspective is missing in the development literature about deserts which instead takes a birds-view approach (above and separated from places) and is dominated by scientism.

Deserts are still largely considered wastelands and inhospitable (cf. Chap.1). From the perspective of urban dwellers, development ends on the fringes of towns (Rodgers 2018:101). Even current waves of large-scale infrastructural investments and extractive industries that bring new attention to drylands (cf. Chap.2), are reiterating an operational view of drylands as a space strategically produced as a means to certain ends (Miggelbrink et al. 2013). Northern Kenyan drylands are punctuated by these forms of interventions (dryland extensive farming, geothermal power extraction, wind farms, oil extraction, mega-dams). These interventions result in carving, enclosing, bordering lands, and reveal a struggle over the meaning of space and resources between “insider” and “outsiders”.

In response to the accounts of outsiders over drylands, I searched for meanings of space in everyday life of Turkana herders and I aim to provide a better phenomenological understanding of the way individuals understand and engage with physical and social environments.

Spaces presented in this chapter (and in the next one) are “lived spaces”, spaces of use, experience and imagination, spaces that people appropriate and reflect on thereby generating meaning through practices and association (Hammond 2004:82)—including: plains, mountains, rivers, grazing areas, towns, villages, temporary camps, shops, markets, acacia-shades (under which resting, weaving and chatting), paths (for walking), roads (for driving), and the like.

Inhabited/lived spaces cannot remain “indifferent spaces”, subject to the measures and estimates of external surveyors, but “transcend geometries” (Bachelard 1994). Drawing from

Bachelard (1994), who showed space can be poetry, moving along space is poetics. Turkana herders have learnt through a process of "enskillment" (Ingold 2000) to move along, at the rhythm of their lived spaces. Like de Certeau's walkers, "whose bodies follow a text they write without reading", herders' experiences and participation in their spaces form a "multiple history made up of fragments of trajectories and alteration of spaces" (de Certeau 1985), their intertwining paths corresponding to "unrecognised poems" (de Certeau 1985). By walking through spaces, they are not only involved in the production of space but also enact a process of knowledge creation, or herding know-how (Meuret and Provenza 2014), which is not an alternative science of nature but a "poetics of herding".

Referring to the literatures mentioned above, the chapter is structured around the contestation of deficit views of drylands which hold onto three recurrent representations of desertscapes as (1) static nothingness subject to continuous disasters, (2) endowed with scarce resources, and (3) remote.

In sec.4.1 I show that far from being a "static nothingness"—by "seeing like the herder"—space takes on life. I show that by means of "large-scale ecology connections" the lived landscape stretches across a "coexisting heterogeneity" made of multiple socioecological niches and simultaneous *times*.

From a "large-scale ecology" perspective, vegetation resources are not "scarce" but unevenly distributed across a vast territory, and mobile as they grow, shrivel, and flower again in different places at different times, just as water flows. In sec.4.2 I thereby show the importance of questions of accessibility (when, where, for whom, and for what purposes resources are available) which are observed, shared, and discussed by Turkana herders and do not only depend on physical dimensions of space (landforms, terrain, distances), but also climatic (rain), ecological (water and forage), territorial (rights), and social dimensions (human relationships).

In a space where resources move, these can only be accessed and known by "wayfaring" and moving across the lived space—by means of "enskillment" (Ingold 2000) and experience which is transmitted from generation to generation and encoded in the environment through beliefs, amulets, and ritual life. Sec.4.3 shows the process of meaning creation by social practices which render the environment available also in symbolic terms—perceptually. As a result, the

“remoteness” of the environment means more than mere distance from urban centres. Rather, it signifies belonging and becomes a site of “grass root resistance” (Anderson and Saxer 2016) against forces of modernisation.

With this chapter I aim to contribute to debates about resilience, touching upon a missing dimension in the scholarship: relationship with place. Little is known about how people comprehend, act on, and relate with the world around them, even though this is one of the most basic dimensions of human experience (Feld and Basso 1996:106). Brown at the opening lecture of the conference "Resilience.2017" held by the Stockholm Resilience Centre (SRC), called attention to the study of the complexity of relations with places: how local communities manage natural resources, how decisions are taken, what mobility means and how it is pursued, what values and knowledge is shared, what attachments and meanings are locally assigned to each lived place.[66] This opened the resilience scholarship to investigate experiential and expressive ways by which places are known, imagined, remembered, voiced, lived and struggled over.

In this chapter I will show the relationship of Turkana herders with their lived space through their ways of seeing, experiencing, and feeling to belong in places otherwise classified as fragile, scant, remote. Through their relationship with place they generate an alternative science, a “poetics of herding” and mould a “sense of place” (Fled and Basso 1996) which allows one to feel the mobility of space—its nomadism. Learning to recognise mobilities inherent in space is fundamental, because as argued by Massey (2005), the way we think about space matters—it influences our understanding of the world, our attitudes, representations, and politics.

[66] In this argument she was inspired by a doctoral candidate at the University of Stockholm (Masterson 2016).

4.1 “Seeing like the herder”: a mobile territory

Not sunflowers,

not roses, but rocks

in patterned sand grow here.

And bloom.

ROBERT HAYDEN,

—quoted in Taiye, 2014.



Inspecting camel brands. Lorengelup/Turkana Central. November 2015.

It is Christmas; we are in Urum, a small village at the border with Uganda, celebrating with a dik-dik soup and ugali *(maizemeal). Together with two assistants (Erot and Ethekon), I am spending a few days here before starting to walk along the mountains separating Kenya from Uganda. We want to meet people living outside newly developed centres (what local people call villages) to learn about their connections with the closest centres, their narratives of problems faced, and responses adopted, and to move out of Urum, where village dynamics can be quite straining for a "young girl" as I was labelled.*[67]

Dealing with space, beyond its abstract or flat two-dimensional connotations, implies dealing with its multiplicities, and its constitutive complexity (Massey 2005). Such complexity clearly emerged by "wayfaring" (Ingold 2011) through Turkana with herders and their livestock. From this perspective, deserts become highly variable spaces; mobile spaces where resources grow, senesce, and flourish again in different places at different times, in co-evolution with human and non-human inhabitants. In this section I aim to challenge one recurrent assumption of desertscapes as perceived and represented by outsiders: deserts as static nothingness. Interests in drylands is confined within a small "pocket of high potential" from which resources can be extracted, ignoring broader socioecological dynamics. In this section, I show that the focus on these micro geographical zones (ecological niches) is not only meaningless, but also hampered by the practice of "large-scale ecology connectivity" across heterogenous environments and multiple *timescapes*.

*

Seen from an aerial photography Turkana County looks like a dull spot of desert, an arid savannah that welcomes not more than thorns and dust (Fig.4.1). Yet, by looking at the region from within, moving through it, Turkana does not appear ecologically uniform.

[67] Beginning of the journey which unfolds along this thesis (cf. Chap.3). These extracts are taken from my diary and are reported throughout the thesis. They are distinguished from the main text by using italic and a different font. Places are indicated in the extracts, while dates are not specified because they do not follow a linear time progression but are extracted for narrative and analytical purposes as to better fit and explain the following text.

Figure 4.1 Turkana satellite map



Adapted from Google Maps

Turkana is a place where many ecosystems intersect, including plains and mountains, hills, piedmonts, sandy dunes, flood plains, riverine sediments, drainages, lake shores, bushland, grasslands, wooden forests (Anderson and Johnson 1988; Herlocker, Shaabani, and Wilkes 1994). Such heterogeneity often disappears in the adoption of a zonal model which organizes space in homogenous cells (cf. Herlocker et al. 1994). Each spatial differentiation becomes spatial segmentation and the earth surface is divided into a mosaic of externally bounded segments. This reflects an old way of doing geography referred by Doel as pointillism (Doel 1999). In pointillism, the point dominates geographic practices by mapping surface phenomena into regular and homogeneous units of classification.

Different classifications have, for example, been proposed to organise African savanna according to species composition, topographical variations, or models of savanna functioning (Behnke and Scoones 1992). These approaches reproduce classical ecology ideas of closed systems self-regulating to a point of stability (Krätli 2016). They hook on dated ideas of ecological equilibria, stasis of places, and primacy of fixity versus mobility. And they express an old but persistent obsession with micro-environments which need to be controlled and treat any process of transgression of these boundaries (i.e. mobility) as a threat to the protected zone.

Yet, during fieldwork I crossed those boundaries several times. My hosts seemed never worried about the confines of their habitats, as these were never stable. Hastrup says about Artic drylands "the landscape is of such magnitude that it cannot be told, it can only be expressed as a whole image" (Hastrup 2010:197). This is how I felt by wayfaring with Turkana herders through their landscape. I developed a feeling for place forged by a landscape in its comprehensiveness.

Moving with herders implies moving beyond maps, taking advantage of multiple habitats across and within ecological niches. Like Retaillé (2013), I find the metaphor of "connectivity" the most effective to reflect on this. By moving with Turkana herders, one starts seeing signs that reveal the existence of connections among coexisting micro-zones. Tracks of birds, animals, people. The steps of excessively loaded donkeys. Printed trails of motorbikes. Foils of hunted animals. The landscape is webbed with paths and footways. By moving, Turkana herders respond to movements of their space, which restlessly decompose and recompose itself. Zonal and inter-zonal movements are very common. Between lowlands and highlands. Between wet areas and drier areas during rain seasons. Between various types of forages. Water sources. Away from ticks and flies. Moving along, taking these movements into account, means changing the scale of analysis to a "large-scale ecology" and letting emerge a complex web of socioecological relationships connecting heterogenous ecologies.

These signs of connectivity not only enlarge the scale of observation, but also provide a renewed understanding of the temporality of drylands: a "nomadic time". Large-scale connections link various ecologies and also simultaneous *times*. Broadening the ecological scale to include all existing ecological connections, also implies broadening the timescale.

Like space, time tends to be analysed in its punctiformity (Casey 1996). Next to maps there lie clocks and calendars. Yet, in Turkana there are multiple timescales which are difficult to capture with clocks and calendars. The overall image of desertscapes no longer appears static, a surface where nothing happens; rather "the world continuously comes into being" (Ingold 2000:153). Ideas of micro-zonal stability would therefore be madness. There is no stable state to achieve nor to return to, but always change—under new conditions (Krätli 2016).

I have tried to understand Turkana territory through seasonal calendars, by mapping human activities across the year imposing a sequential organization of time. This was never a successful task. Such goal was continuously hampered by incredible variation in the sequence of months which I never fully managed to understand. I then started focussing on the actual descriptions provided for each time sequence (Fig.4.2). Time appeared to be spatially defined with focus on its spatial qualities more than its sequential order. Units of observations were colours, texture of soil, leaves, wind, clouds, taste of water. There observations were giving an indication of evolving time.

Sun and rain are the main time markers. Turkana split every solar year into two years, sun and rain, and gather all rains fallen in one year into one single collective memory, the same for the months of "*sun and wind"*. Rain patterns are irregular and can make one Turkana sun-year cover several western years, until rain comes. The marker of months is the moon. I quickly started loving full moon nights in the desert. Not just for the white flood of light which transforms darkness into a game of shades and makes grains of sand shimmer; but for the significance, the excitement, and expectations that a full moon brings in the community. It is a night of dances, migrations, raids, rituals and ceremonies. It is the night that signs a new month, when brothers exchange stocks to look after, to obtain a full understanding of the "*four legs"*[68].

In this "timescape" (Adam 1998), there is not a fixed November identical to every other November in every other year and across multiple ecological niches. Rather, there is a moment in time when somewhere "*dry pods fall from trees, there is no rain, but a strong wind blows and most of trees remain without leaves"* (FGD, Lorengelup, 11/11/2015). Time and space are no longer the negative of the other, but have merged: what happens in the nomadic space

[68] Complete herd: cows, goats, sheep, and camels.

(lands, grass, plants, trees, clouds, roads, schools, villages, food distributions) is translated into people's understanding of temporal cycles as reflected in the environment which prescribes actions. "Spatial and time indicators are fused into one concrete whole. Time, thickens, takes on flesh, becomes artistically visible; likewise, space becomes charged and responsive to movements of time, plot, history" (Bakhtin 1981:84).

When "*dry pods fall from trees"*, time has come to start preparing stocks for the advancing dry season and to move to reach a different location where space-time has a different representation. The relation between space and time is what gives mobility to space through topological deformations caused by the actors (humans and non-human organisms and abiotic factors) operating in the socioecological system, in the space-timescape. People are continually aware of their space-timescape not to miss a hint or clue. Turkana herders have taught me an awareness which is within, and not above, the landscape. The landscape itself capacitates people; it is a dimension of their agency.

In this way, Turkana herders have moved beyond the dichotomy of landscape as neutral and external to human activities. They do not simply observe space and time as a lay audience; rather, they participate in it and incorporate changes into their living. During my attempts of drawing seasonal calendars, people were aware of what they are supposed to do when clouds move and reunite in the sky to prepare for rain, when pasture greens up or soil turns into mud, when trees shed their leaves, when there is sun and wind, water withdraws, and land is dry.

The actual order of months did not really matter, because an order has rarely been seen—through the words of a focus group participant during my attempts to draw seasonal calendars:

> "*The characteristics of these months change all the time; we look at what happens around us and decide accordingly. We have learnt to see*".

Followed by another participant:

> "(...) *Like now it should be the month of* Lorara, *but trees have already lost their leaves, and everything is dry, we know some wild fruit may have ripened somewhere and that we need to move our animals, water will end soon".*

Seasonal calendars are not chronological progressions of time, but an interpretation of time as participated and experienced by people through hints and clues gradually revealed through space. As a result, decision-making appears not an arbitrary choice but rather an account of changes.

Through seasonal calendars Turkana herders taught me that variability and changes have always occurred in their lived space. And that variability itself is advantageous:

> "*God has a good plan in making these fruits available: when one is not ripe you can find another one! There is always some wild fruit we can eat somewhere*" the chief's wife once told me in Lorengelup (11/11/2016).

Variability increases opportunities. At a basic level of analysis, the different combination and temporality of various plants allows some wild fruit always to be available. Yet, variability can only be advantageous if one abandons ideas of stability implicit in narrow scales of observations, favouring instead "large-scale ecology connections".

To benefit from the variations which occur at a large-ecology scale, conditions of accessibility become of paramount importance. These conditions are not limited to physical dimensions which may hamper (or facilitate) access to resources, but also climatic, ecological, territorial, and social conditions—discussed in the next section.

Figure 4.2 Seasonal calendars[69]

Month	Meaning	Description
Lokwang	Derived from word ekwang, bright. It indicates the month of sun and wind	Everything is dry. It is the worst time of the year. It is the month of suffering.
Lodunge	Derived from verb *Adudung'iar,* to close/fall. It is the month that marks the end/fall of the dry season and the beginning of the rain season.	End of the dry season, there are some scattered short rains in the surrounding areas.
Lomaruk	Derived from Akimaruk, formation of clouds. Early sing of rain. Clouds move in preparation of the rains.	Beginning of the rain season, clouds come together (the clouds are moving fast).
Titima	Derived from *akititimare,* process of pasture germination/flowering. There is good grass for livestock.	Plants start flowering.
El-El	Derived from akielarr, to scatter/to blossom and mature.	Plants have matured. There are rains; flowers bloom and petals become big and can be seen even from far away, some plants also have matured.
Lochoto	Derived from *echoto,* mud. It is the month of heavy rains, the whole place become muddy.	Livestock are giving birth, they are healthy and fat. It rains a lot, vegetation is green and all over. This is the best month of the year. Most motor cars have problems crossing because there is too much mud.
Losuban	Derived from verb akisub, to make. This is the time for doing and for rituals.	Livestock has a lot to feed. There are many ceremonies. People have plenty of food, grass turns yellow, there is no rain.
Lotiak	Derived from verb *akitiak,* to separate/divide. This is the month that divide the rainy season from the dry season.	The grass is yellow, animals are still doing well. This is a transition month, end of the rain season.
Lomuk	Derived from the verb akimuk, to cover. There are short rains and the sky is covered by scattered clouds.	Most trees turn green, there are flowers and fruit. Trees are forming heavy shadows with their crowns. No rains.
Lopoo	Derived from *akipore, t*o cook. This is the month of hardship.	Many trees start to flower, feeding animals with fruit and leaves. People gather wild fruit

[69] Extract from FGD held in Lorengelup sub-location (11/11/2015).

4.2 Accessibilities and scarcities

What makes the desert beautiful, said the little prince,

is that somewhere it hides a well

ANTOINE DE SAINT-EXUPÉRY,

1944.



Taking cattle to water. Urum/Loima. January 2017.

Despite issues of accessibility having started being discussed long ago with the strong contribution made by Sen in interpreting the Sahel famine in the 1970s (Sen 1981), dominant approaches still represent drylands as the realm of scarcity (cf. Neely, Bunning, and Wilkes 2009; Oliveira, Duraiappah, and Shepherd 2003). This view emerges from the use of indicators which focus on "discrete states", such as average rainfall and length of growing season (Krätli 2016). Reports produced by use of these indicators give an overall image of desertscapes as homogenous lands with averagely little resources. This section aims at contesting ideas of scarcity by offering a relational lens to resources through the concept of accessibility.

*

Thinking in terms of accessibility, resources—even in drylands—are relationally available (for whom, where, when, what) even if not uniformly distributed and therefore lost in standard average. Accessibility is the capacity and possibility to reach, appropriate and use resources (for livestock and people) and it is experienced at multiple levels: possibility to reach pasture and forage with the herd (existence/location of pasture, level of security, low/no parasite infestation, terrain conditions and fertility, slope gradient, presence of water, low competition with other herds and predators, and many more), but also to the herd's capacity to feed on it (feeding selectivity) as well as time (accessibility of good quality pasture might be seasonal, but also refer to the herder's capacity to reach it at the time nutrients peak in the life-cycle of the dominant plants, or at night), land tenure restrictions, social connections, and the like.

All these conditions are constantly observed, shared, and discussed by Turkana herders who want to access resources, as reported in the example below extracted from a conversation between one of my hosts in Urum—Lonyang—and a young boy—Lomung—who crossed our way during an evening walk to check all shoats were back home.

> *Lonyang: Where do you come from?*
>
> *Lomug: I came from Nayanaa Khatwan* […] *I am in search of camels that went missing. There is one white female camel and a brown male camel and some calves.*
> *Lonyang: Those camels were seen in Lotome stream two days ago where I was tending my goats. I heard from my son who herds cows that herds of camels were seen following Lotome upstream.*

Lomug: Woi! *Let's hope they have not gone past Locher Emoit, those wells pose great danger to animals. People dig too deep and wells continue to dry up.*

Lonyang: All villagers close to Locher Emoit are saying that those wells are dry […] *Now, tell me about your home, how are people there? Are your animals better than these ones here?*

Lomug: There is not much to say except that God has continued to fail us. Our animals are getting thinner and are dying every day.

Lonyang: Did you cross river Kotome on your way here? I am told there is some rain there.

Lomug: People there are not as bad as here. Their animals are eating green shrubs along the rivers and dry grass in Ngitiir. Their only problem is raids from the enemy.

Lomug: Woi! *and alcohol cursed the Turkana to react and defend themselves!* […] *Is Nakua still in your village?*

Lonyang: Nakua the wife of Lomerite?

Lomug: Yes, I have a message for her from her people […] Ok, I really want to know where my camels are before dawn and then I will spend the night in your village […]

Lomug and Lonyang met along their paths, they were walking in opposite directions which in turn meant they were coming from different places. This is an opportunity not to be missed. In their exchange they do not focus on average values of resources, but on relationships and context.

Along the reported lines there are critical questions about rain, water, and vegetation, health of livestock; they are marking territorial boundaries with respect to movement of each-other's animals as well as enemies' advancement and delineating social connections. This information is critical for decisions to move (direction, speed, itinerary, destination, etc.) as it serves to assess accessibility to various places and people.

It is still dark when we start walking; a silver moon plays with the roof of the huts in Urum, creating long shadows on the ground. The first sunrays reflect on the village shacks we left behind as we divert from the main road to take

a path that crosses sisal fields. Soon we run into a herd of cows and donkeys loaded with piles of empty jerry-cans. I recognise those cows, or rather I recognise the women who are directing the herd. They are the co-wives of one of my host families from my previous round of fieldwork. I have heard they migrated towards Koomyo and I was excited to meet them up soon. Yet, this is sooner than expected and worryingly so because they are going to water their animals to Kachaikol River, past Urum centre, back where we came from. I immediately become very concerned about the possibility that we would not find water along Koomyo River, and our 15 litres will not last for long. We were warned about the persistence of drought, lowering of table water and the abandonment of several wells.

Luckily this was a different story. Longoli family had camped slightly before the steep hills that lead to Koomyo River and its wells, known by the name Kotido. Despite these hills being closer to their homestead, they are difficult to climb with a herd of cows. Thus, every other day they take their cows to an easier well to access. Another reason is that the Longoli family possess wells along Kachaikol River. They should fetch water from those wells, at least until they are not dry. Furthermore, there are potential interests in passing through Urum centre: for information, being updated on what is happening in other villages, on what may come from Lodwar, the government town, in case of aid distribution or other development programmes; or to re-stock from local shops.

In this intercepted movement, I am describing three types of accessibilities considered. First, there is an issue of physical accessibility due to problems of access caused by a steep rocky hill. Second, there is an issue of territorial accessibility in the geography of family wells. Finally, there is an issue of social accessibility, gained from passing through a new growing centre.

In the sub-sections below, I introduce some of these forms of accessibility. I do not aim at providing a comprehensive list, but only focus on those dimensions of accessibility I could learn through my experience. The goal is to show that by "seeing like the herder", it is no longer possible to speak of a homogeneous land with scant resources. "Seeing like the herder" leads to understand drylands relationally, like mobile spaces in terms of what they offer, where they offer it, when, and under what conditions it is accessible. This generates a complex

decision-making process often ignored and stereotyped with the image of lazy herders resting in the shade of acacia trees bored by their goats.

Conversely, a herder resting under an acacia tree or walking to fetch water for the family (Fig.4.3) is meditating a complex matrix of five dimensions (at least): physical, climatic, ecological, territorial, social thresholds.[70] Where the herder stops to rest or to water her animals is a place of activity. She is thinking about how to optimize water and food availability, her personal safety and herd safety. How to minimize discomforts for family members. She is finding locations that will provide for building settlements and refuge for the animals. She is looking for sociality, feasibility of crossing through new places and freedom of movement. Some of the criteria used to make such decisions, discussed in this section, include: texture, drainage and colour of soil, gradient of hills slope, vegetation reproduction, and neighbours, distant relatives, extended families.

Figure 4.3 Walking to fetch water



[70] Cf. also "the mathematics of the herder" (Salza 1997).

Physical accessibilities

Physical variables influencing accessibility to resources include (not exclusively): landforms, distances to be walked, and soil/terrain conditions.

*

Bounded between the Great Rift Valley on the west, and the Samburu Hills in the southeast, most of the landscape in Turkana consists of low plains with elevation ranging between 300 to 800m (McCabe 2004). These plains are punctuated by mountain ranges, lower lava hills and flows. Volcanic rocks cover approximately one third of the county lowlands, the rest being made of sandy and clay plains, lakebeds, and mountain foot slopes. Far from being a uniform land, the German cooperation mapped all landforms in Turkana identifying at least 31 different types (Touber 1994).[71]

Turkana language has a wealth of terminology for small differences within land types, that outsiders' eyes would perceive as homogeneous. With their language, Turkana recognise the richness and heterogeneity of their land and express it in terms of accessibility. Intensity, steepness, ravines, type of stones, are all variables that affect accessibility for animals. These descriptions are included in the names of mountains, together with the colour, or certain warnings about past occurrences (Annex.7).

I have found discussions about landforms, and most particularly about mountains, very frustrating. Conscious of the importance of geographical knowledge of the environment for herders and pastoralists to graze their livestock, I had imagined and came to expect that everybody would know every possible difference in the landscape almost by heart. Conversely, there generally was never common agreement among participants in those discussions as different mountains' names were proposed, argued, and contested. And many would not even show interest to recall this information.

Not until we could *see* those mountains and walk by them. Simply by sitting, in an interview format, no recollections could be made. Instead by walking up hills or by gathering berries on their slopes, people could not only name all mountains in the surroundings, but they

[71] See annexes 3-6 for compiled maps of landforms in Turkana County. Thanks to Müller-Dempf for helping find these maps.

remembered them. By moving, my hosts became aware of hidden histories of places and their names, we could "get a feel for the place" (Hastrup 2010:195).

During our journey from Urum this became even clearer. People could only partially list mountains (or rivers, or paths, or grazing areas, and other landforms) when asked during random conversations out-of-place, but while crossing the landscape these were all conjured up. People had been there, grazed their animals through these mountains, hidden in their bushes, run at night with spears and guns to raid neighbouring cattle, and relied on their resources.

The reason to know mountains and landforms is simple and crucial: herders need to access resources for their animals, generally found in mountains. This also explains why, when collecting migration histories during household interviews, people generally started by mentioning the name of a mountain (and a spring) where they had migrated:

> "*I used to go up to Moruabwel, and to Moruita, and sometimes to Morulinga, and sometimes to Moruangitak* [...] *Nakabaat to give water to the animals* […] *or I take them to Lochulo water point* […] *during the wet-season, mountains contain* ngabwelin *(pools of water) that I used to water the animals, but in dry-season Sogo hill with its nearing water points became my home*" (Male elder, HH, Urum, 4/02/2016).

Mountains offer both resources and obstacles to reach them, if walking with large herds as it was the case for Longoli's herd in Koomyo.

*

> *Comforted by the assurance that wells in Koomyo are not dry, we proceed. We cross several dry streams; the path starts climbing up and the sun is scorching. While resting on a big rock in the wide shade of an acacia tree, we see a woman venturing down from the top of the hill. She comes from Kotido and is going to Urum to sell a chicken tied on her back in a dusty drape usually used for kids. While talking with the woman from Koomyo, we realise to have lost Ethekon. He has not stopped complaining about the heavy luggage and our slow pace since we started walking.*

Overlooking his responsibilities as assistant and translator, Ethekon did nonetheless teach me something important about Turkana: speed. He passed us and went ahead with the speed meant to reach a place by a certain inclination of the sun.

Distances to places were generally indicated to us in hours of walking. It took me a long time to realise that this was relevant information. Distance is a well-defined limiting factor, measured in time: neither kilometres, nor miles matter; time employed to reach a place tells a much more interesting story of encounters that may happen along the way. Otherwise, herders' pace is fast with a clear question in mind: what distance can animals travel without drinking?

Pastoralists know how long their animals can stay without water or food and calculate how long they can walk to reach such resources. Consequently, they arrange two focal points accordingly: home and water, traced by the distance for animals to graze enough pasture while reaching the water point, but also for people to attend other duties. Tasks include: identifying wild fruit and medicinal herbs (boys' and girls' tasks); gathering wild fruit and medical herbs (women tasks); fetching leaves or other construction material for homesteads/utensils (women tasks); tracing wild animals/visitors/enemies foot-prints (men tasks); setting traps for hunting wild animals (boys' tasks); collecting information/news/rumours from neighbours/visitors (everybody's tasks); and more.

*

> *We arrive to the main* epeduru *close to Kotido wells, a big tamarind tree used for important meetings. Ethekon is resting in the shade of the tree together with all main elders of the area who gathered for an important cleansing ceremony. This keeps us along the river for the entire day. In the evening we walk to the homestead with our newly met host. There is still excitement in the air from the ceremony and plenty of meat to be eaten. It is while the meat is cooking in the pot that our host describes his wealth. He is a very rich man, in "people and animals". Logiala repeatedly says something else: "my father has more camels than soil has grains of sand".*

Soil for herders, fertile and made of many particles and minerals, is equivalent to land for farmers. Soils differ in the nutritive values and growth cycles of plants. On sandy soils, for instance, grass sprouts earlier in the rainy season than on other soils. Clay soils instead contain

more valuable salts (Krätli and Schareika 2010). Types of soil influence plant palatability. Poorer soils support a vegetation mainly consisting of woodlands and grasslands with lower nutritional values for livestock; while richer soils (volcanic rocks, riverine sediments, flood plains, clay montane environments) support a better quality of feed resources and hence also support a higher density and diversity of herbivore species (Behnke and Scoones 1992). Seeing like the herder implies learning and appreciating soil variations.

> "*I saw the cracking of the soil*", said Aregae describing the moment when "*drought kills the animals"* and it is time to migrate (FN, Lorengelup, 17/01/2016).
>
> "*I herded and reached all soils*", said Nawuoi when narrating his migrations with the animals (FN, Kaikole, 18/01/2016).

Soils start cracking, as Aregae witnessed; soils are different from place to place, as narrated by Nawuoi. Soils change, dry, and gush again over time depending on climate, seasonality and land usage, geology, nutrient transportation, and topography. This is part of the complexity of a region like Turkana, far from being homogeneous and static. As for landforms, in Turkana soils are very heterogenous too. In some parts of the county soils are very salty and poor in other minerals. In other parts of the county they have agriculture potential if irrigated. Toward East, where lake Turkana sits, wind erosion and deposition become increasingly important, and dune formation is an ongoing process. Unconsolidated sediments, partly lake deposit sediments from a formerly much larger Lake Turkana, can be found in several parts of the county.[72] Turkana vocabulary represents the richness of soils (Annex.8). Rain also plays a major role in the variability of physical accessibilities and will be discussed next.

Climatic accessibilities

> *We wake up when camels and cows have already gone. Some of these animals must be lactating, despite the peak of the dry season, because it is the sound of* ngakobok (sour milk)[73] *to wake us up. We are offered some tea with milk. Logiala sits with us on his* ekicholong (stool) *when two young men walk in the homestead. They come from Loima and are looking for rain.*

[72] See annex.9-11 for compiled maps of soils in Turkana.
[73] Prepared by shaking a calabash with mixed milk from different animals and dried grains of cow urine.

The two young men were scouts sent to "*look for where grass can be found, a water point, a secure place where huts can be built*". They are sent to assess whether a specific place is accessible.

Rain is important because it supports plant and forage growth and also temporary availability of water (Homewood 2008). Herders who need to know whether they can reach a certain grazing field by a certain route, also consider whether the grass they are going to find has adequate nutritive values or if they will find water at the destination and along the way, partly dependent on precipitations. Thus, rain becomes a major topic of conversation.

Indeed, we spoke about rain in every setting. Looking at shoats from the shade of an acacia tree. Inspecting goat entrails found along our path. Rain was danced in full moon nights. Whispered along human chains emerging from deep-dug wells. Rain was dreamt, remembered from the past, prayed for the future. Rain was in morning teas, in chief meetings, and in children games. Rain was in green sprouts, dry pods and in the skeleton of trees. Rain was in every word, and beyond words. Rain was in the grass, the plants, the rivers, the animals. Rain is God, life, and death.

I took note of most discussions about rain and realised that rain was rarely the object of discussion (Fig.4.4). Talking about rain is talking about its relations with people, animals, grass, and future.

Primarily rain is about animals and "*good grasses*" that grow. "*When it rains, it rains life, all the different grasses grow, and the animals survive."* (Male elder, FN, Lorengelup, 19/01/2016). Grass is one of the most limiting factors for herders, more than water. Livestock can stay several days with no water (particularly camels), but to survive dry seasons they must eat. Following rain means finding better grass to maximize nutrients and food intake for animals.

Humans then use animals as means of production converting otherwise useless resources, such as grass, into edible food. Thus, rain is also about people. "W*hen rain disappears, the only thing to do is to migrate* […] *Our stomach will speak and say where we will go to survive.*" (Middle-aged woman, HH, Lorengelup, 17/01/2016).

Figure 4.4 Meanings of rains



Author's elaboration (Nvivo.11)[74]

I was often told that "*nothing will change, until it rains*". Rain is often said to *bring* something. The future is the domain of God, *mandeleo* (development), or rain. Future concerns change, and change is, in many cases, brought by rain, recognised as one of the most influential vectors of spatial mobility and uncertainty in drylands (Ellis 1995).

Rain is associated with lack of rain (seasons and drought, Fig.4.4). Rain comes seasonally, but not as well marked as expected. Dry seasons contain *ng'irupei* (short showers); wet seasons are interrupted by the sun and *ekuwom* (wind). Dry-season and rainy-season co-evolve, temporally and spatially (Galvin et al. 2001; Oba 1992; Soper 1985). Rain in Turkana is so erratic that no one can predict when, where or how much it will rain with any degree of accuracy, as represented in old ethnographies, such as:

[74] A note on word-clouds: I used word-clouds as an explorative tool to see recurrent themes emerging about a specific topic (in this case rain). I am aware that word-clouds are highly interpretative tools and greatly draw on my own wording and synthesis. The readers shall approach these images as thematic maps more than analytical devices.

> "In the *Ateker* region a normal rain pattern is said to start at the beginning of April […] this is more exceptional than normal as the amount and incidence of rain varies considerably." (Dyson-Hudson 1958:6)

Thus, even though Turkana herders speak of a rainy season (*akiporo*) and a dry season (*akamu*), amount and distribution of rain varies tremendously. Additionally, when rain unpredictability combines with different soil types and varying topography (physical dimensions), there is even greater variability (Krätli 2015), creating scattered and volatile niches of moisture to support plant growth as rainfalls move over the territory.

Nonetheless, climatic variability is often used as a "discourse of crisis" in terms of climate change based on the increased frequency and length of droughts in the region (HRW 2015; Schilling et al. 2014).

Academic and policy circles have predominantly resorted to a climate change narrative to explain climate patterns in drylands and human mobility, almost acritically (Jónsson 2010). These debates reiterate old assumptions of stable ecologies and ignore historical cycles of fluctuating rain patterns in drylands where extreme weather variability and unstable environments should be understood as the norm.[75] Indeed, droughts represent one of the most widespread hazards in the region (NDMA 2015), as Glantz (1987) puts it they are "a part of climate and not apart from it". This led to a fine local knowledge of climatic fluctuations and also to rainmaking as a specialised activity (cf. sec.4.3).

Drylands are normally classified according to a scale of aridity, calculated on a ratio of annual rainfalls, and droughts occur when this ratio is not met. Conversely, when Turkana herders speak about the seasonality of rains, they do not only refer to lack of rains, but also imply that at times it rains too much, as most conversations about the danger of rain showed (Fig.4.4). When they speak of *akamu* and *akiporo*, they do so in relation to herd conditions and accessibility of pasture, not of average quantity of rain.

Certainly, they cannot change the amount of rainfall. They can instead change the experience of climatic accessibility of pasture by means of mobility (Krätli 2016). Drought is thereby defined by the timing and location of rains, if these occurred to allow grass to grow. It is not

[75] It also ignores the political ecology of environmental change (Jónsson 2010), not discussed here because of length reasons.

the absolute deficit of rain to classify droughts; rather it is the accessibility to and distribution of rain, and the capacity for mobility.

As this shows, in drylands, average rain predictions are rarely reliable and largely meaningless. Information shared about rain do not include averages or amounts of rain, it does not even include rain itself. Rather, it is about how rain relates with the lived spaces, human, and non-human organisms. What herders are concerned about is how rain will be distributed and where it will rain, remembering that "a good rain season is when there is enough water and it is well spread" (Krätli 2015).

The interplay of physical and climatic variables contributes to the construction of heterogenous and dynamic ecological niches to which I turn below.

Ecological accessibilities

> *We decide to follow rain together with the two brothers sent to scout potential family destinations to Lokorokipi wells. It is a long march, at the end of which Lokorokipi wells appear like an industry. There are two wide and deep wells, dug next to each other. Columns of people emerge from the wells. Some dig sand to make the well deeper, and chase vanishing water. Some fetch water to pour into troughs for the animals. Some shovel all around the well to make it safer for the animals to access. We have the name of an elder of the area, but Emoru theatrically tells us to wait: he is busy coordinating all well operations.*

Climatic uncertainty (climatic variables) coupled with heterogenous and dynamic topographic and morphological conditions of the terrain (physical variables) make ecological niches fluctuate widely over time and space in terms of availability of underground water, biodiversity in fodder plants, presence of parasites, competition from other users, availability of wild fruits and plants for human consumptions. In this sub-section I focus on water and forage availability.

*

In Turkana, water supplies for animal and human consumption are taken mainly from watercourses. After rain, depending on the conditions of the terrain, ponds are formed, rock pools are filled and local springs gush. After a period of sun and hot wind, these sources are

exhausted (Gulliver 1968:348). Water is thereafter found by digging progressively deeper wells fetching from networks of underground hydro-refuges (Cuthbert et al. 2017).

Several studies have shown that Turkana is well equipped with water supplies (Cuthbert et al. 2017; Gernote 1994); nonetheless any major humanitarian intervention has dealt with a lack of water and entailed the construction of water points. These approaches treat water as a necessary starting point for development, frequently failing to recognise that herders do not need permanent water points and have learnt to "stay-without" (cf. Chap.7) and migrate according to the variability of hydrological landscapes. By moving they save the environment from degradation and overuse, and guarantee the reproducibility of resources (Salza 1997).

Several scholars argue that part of existing degradation processes, which include the lowering of water table and land impoverishment (HRW 2015), is caused by construction of permanent water sources (and permanent service infrastructure) (De Jode 2010; Khazanov 1994). Permanent wells disrupt adaptive strategies to water management (cf. territorial accessibilities, below). Powerful families settle around the borehole and start controlling flows and use of water by others. This creates social stratification and population (human and livestock) pressure that will erode land, deplete its nutrients, and divert water from other nearby sources (such as seasonal rivers or downstream wells). Ecological accessibility of water means that water is available but also that it is let flow, learning how to follow it and successfully graze over heterogeneous forage resources, sustainably (Little, Dyson-Hudson, and McCabe 1999:60).

*

Variations in soils, landforms, rainfall, and hydrological landscapes have crucial impacts on forage distribution, even by a few millimetres, creating a variable and patchy vegetation structure (Ellis and Galvin 1994:383)

It is commonly believed that pastoralists are pushed by pasture shortages. I have learnt instead that this is not the main reason behind their decisions. When Turkana herders move in search of feed for their livestock, they generally do so for high quality of forage and not because of low quantity (De Jode 2010). For example, I was confused when—migrating with the two eldest brothers in my host family in Lorengelup sub-location—we arrived at a place

called Lokitela to graze their family shoats. Lokitela looked dry and not very different from the rest of the surrounding landscape.

Akiru[76]*:* […] *A dry place, why do you take goats to a dry place?*

Lopwenya[77]*: It is in that place where grass can be found.*

Akiru: Therefore….is it not dry?

Lopwenya: There are shrubs, when it rains those shrubs become green

Akiru: Is Lokitela now green?

Lopwenya: Lokitela is now green and goats graze.

Lokitela, a flat dusty area close to Kerio in Turkana Central, was *green* and I could not even see it. To outsiders, grasses, shrubs, trees, may all look the same, but in fact pasture quality varies on a daily, seasonal, and annual basis, and it is not evenly spread across the landscape (De Jode 2010).

Vegetation in Turkana ranges from barren land, to annual grassland, and evergreen forests. Browse is found almost everywhere in Turkana, varying only in quantity and quality. Even the worst of the central shrub desert regions affords some browse in the wet season and extensive areas of the plains provide some forage throughout the dry-season (Gulliver 1968:349).[78] At times ephemeral vegetation is triggered, producing flowers and seeds in different places at different times.

These variations occur spatially and temporally (Krätli 2015) and determine highly dynamic grazing ecosystems to maximize food intake for livestock. Spatially, distinct pulses of plant production are followed by long periods of plant dormancy. This happens among different ecological zones as seasons alternate (spatial co-evolution of dry and rainy seasons) and within the same ecological zone due to certain combinations of plants. Different ecological habitats evolve when the same species of plants are richer or poorer in nutrients because of, for instance, the different incidence of pests and diseases, differences in soil properties, or plant

[76] My Turkana name.
[77]Lopwenya was the oldest son of my host father in Lorengelup. We spent a week walking with him and his shoats through Lokitela grazing area while they were making their way towards the mountains at the horizon.
[78] Cf. Annex.12 for a map of vegetation distribution in Turkana.

lifespan. Temporally, ecological variability of nutrients is determined by alternating seasons, by the lifecycle of plants[79], and by the time of day when the plant is consumed[80].

Turkana herders, who move along the nomadism of their lived space seeking resources for their livestock and for themselves, through channels of physical, climatic and ecological accessibility, also consider territorial rules of access. Pastoral societies possess indeed a variety of institutions (land tenure rules and systems of territorial control) to manage resource appropriation and use—discussed below.

Territorial accessibilities

> *When the animals start being taken away, Emoru calls us. A group of elders have gathered. They want to know who we are and what we want to do. They listen and gravely reply "we are facing one of the hardest periods of our time.*[81] *Water is refusing to come. Grass died. We fight to give our animals something to eat, and we are killed by the enemy. This is our life. You are welcomed to stay, but never forget who you are, where you come from. This is our home."*

Land is not privately owned in Turkana and seems "not to belong"—to anyone. Over this observation, the national government have classified most of Turkana lands as "communal land" (Rodgers 2018:104). Rodgers, in his recent DPhil thesis on Turkana *Raiya*[82], reflects on how on the one had this act serves as protection for common resources, but on the other hand it ignores the ways people express attachment and possessiveness over certain places.

I found the management of land and resources a coexisting and overlapping set of claims and negotiations, disaggregated at multiple levels: type of resources (grass, trees, water), type of resource use (individual, household or animal consumption, commercial), season of use (shortage, abundance). These rules correspond to a different way to perceive territoriality. I

[79] Nutritive levels vary according to the plants' lifespan. For this reason, if it rained in the same way everywhere, livestock would eat progressively less nutritive food. The fact that rain is distributed irregularly in a wide territory, allows differential plants' cycles and pastoralists could potentially find the most nutritive plants for their livestock.

[80] In the evening plants have lower nutritive values than in the morning due to photosynthesis processes.

[81] Turkana County was starting to face one of the most severe droughts in memory, officially declared in February 2017 (cf. Chap.2).

[82] Cf. Chap.7.

worked towards a definition of territory as resulting from the reciprocal action of "marking" between space and people: space marks people (identities), and people mark the space they live in (territory as a cultural place).

On people and livestock these marks determine identities. According to Gulliver (1951:75–78), there are two main divisions within Turkana people, *Ngimonia* in the west/south, descendent from former pastoralist of the Koten-Magos group (Lamphear 1976); and *Ngichuro* in the east/north descendent of the first Turkana immigrants who were agricultural Paranilotes (Lamphear 1976). This division is called *ekitela*—ridge. *Ngitela* are geographical groups, called "territorial sections" (Müller-Dempf 1994:179), membership to which is nonetheless acquired by birth (and not residence) through patrilineal lineage from a common grandfather (Dyson-Hudson and Dyson-Hudson 1999:81). Territorial sections are distinguishable by the way they perform *akiriket* (meat ceremony). This is the first identity-mark, incised on the *apol*[83] of a sacrificed animal. Given their geographical identification, *ngitela* determine territorial rules of access to water and pasture.[84]

Territorial sections are further divided into brands[85] (*emachar*), each with its own livestock-branding. An elder in Kambi Lore once explained that "*the clan is like a number-plate in a vehicle. It serves identification purposes*"; it controls laws, costumes, rituals and identities (Barrett 1998). The *emachar* is primarily an indicator of livestock ownership, but also prescribes rules and taboos for specific groups of belonging. Brands are mixed over the entire territory and are exogamous. The brand-belonging is visible through a set of marks imposed on people and livestock. In the past, all Turkana people had three distinguished marks on the forehead to signal their brand. Also types of skin worn, colour of clay applied, or hair style help distinguish different brands. Finally, men create animals' identities imposing identifiable marks and cuts on their bodies, corresponding to the brand of the owner (Fig.4.5). In this way, families belonging to the same brand become livestock-associates with similar branding marks (personalised at family level) on their animals. The relation with livestock is dual: people mark identities on their animals, and animals give identity to people (every man takes the name of the favourite ox).

[83] Part of kidney, muscles, and fat cut from the hip of livestock. Each *ngitela* performs this cut in differently.
[84] Cf. Annex.13 for map of the distribution of territorial sections in Turkana.
[85] Also called clans.

Figure 4.5 Livestock emachar



Given the irregularity of rain and vegetation, the same herd is not found at the same place in successive years (Gulliver 1968). Also, at times of severe droughts government and humanitarian programmes facilitate relocation of many herders along the shore of Lake Turkana, contributing to the shuffling of *emachar* and *ngitela*. This creates a "mobile geography of brands"[86] which is made particularly visible on livestock migrating to different areas in search of pasture and water and a safe place. The mixture of brands and territorial sections determine a complex web of rules and customs. New-comers must seek permission to access resources by establishing contacts with brand-mates, or making friendship with local people (Müller-Dempf 1994:182).

*

I defined a territory also by the action of people carving the environment to mark rules that influence rights and permissions to access resources. These rules serve to maximise

[86] Thanks to Alberto Salza for this insight.

productivity in time of plenty and reduce losses in time of scarcity. I identified two levels of marks incised by people: material and invisible marks.

Examples of material marks are footprints, family-wells, and shrines.

> *After some days with Emoru's family we start walking towards Loreng'esinyen wells. Along the way we encounter a young boy focussed on following his lost camels' footprints. Luckily for us, someone told him they had seen his camels around Loreng'esinyen wells: we can help him look for his camels and he can guide us to reach our destination. The boy explains to us: "The footprint of my camel is like the footprint of one of us. The footprint of Akiru, Erot and mine are different; in the same way I know the footprints of my camels. I know their legs, like these legs of ours, they leave different marks on the ground. This one is the white camel: she is a good walker. Look at me; do you see these footprints of mine are different from yours?"*

Turkana drylands are entirely marked by paths (*ngirotin*) which represent material webs of space-time relationships. Such paths tell the landscape, starting from the earlier passage of others—a map of their march. Footprints are a major investigatory method. Footprints are used to follow lost herds, or wild animals threatening livestock: "*These are the footprints of those animals that are eating my little goats; they are surely three and move in this manner* (mimic walking way)" my host father in Urum explained the case of some lamb being killed. Footprints are also used to identify visitors/strangers/enemies arriving in the area and to track their movements. Once in Kaikole, we reached one of the furthest homesteads to interview an old woman. A neighbour reached us, out of breath from running: she saw un-identified footprints (ours!) and was worried for her friend. Footprints are also used to unmask thieves: "*We would investigate until we confirm it is him* (the thief)*, we would follow his footsteps and catch him*" explained a village elder in Kambi Lore.

> *Approaching Loreng'esinyen we see at least five wells in a couple of bends of the river. It is mid-day and the sun is scorching. Most people are resting along shaded banks of the dry river. We approach the first well and ask about an elder who we would like to stay with for the following days. Two girls point at the furthest well. We walk slowly in the middle of the river impressed by the depth of the wells. While greeting people around the wells and introducing*

ourselves, we come to realise that these wells belong to different families, and that our future host family is resting at the side of their well.

Water holes are restricted and monopolised by those who have customary users' rights. Danger of fetching water, strain of digging and maintaining, and paucity of water determine the exclusivity of the well. Each family has several wells spread in a large territory, some active, others dry, others covered by sand from wind or a once flowing river. This creates a "geography of family wells", the access to which must be requested—especially if used to water livestock.

Figure 4.6 Family geography of wells



Lokir, our new host, is away to follow-up on certain issues. Some of his daughters have finished watering the animals and accept to take us home. Together with us there is also another visitor—Ethikiria. She is a relative of Lokir and is travelling from Lotere, a vast grazing area between Uganda and Kenya, going to Urum centre. The path to our new home climbs up through a low hill made up of black stones and acacia trees. Ethikiria, silently picks up

a small rock which she adds up to a heap of stones set next to the track. She does not stop her pace when she turns and aims her spit at the cairn.

A dense net of shrines is spread over the whole territory, a material mark over land with symbolic meaning. The cairn we passed with Ethikiria was a prayer site for protection of travellers and a blessing for the mountain (Fig.4.7). Other cairns hold different meanings.

Figure 4.7 Mountain cairn



The year before, during my first round of fieldwork, while trekking with my host family, we were stopped and shown a rock (*amoru napongait*[87]). The rock bore marks of the *Ngipunga* brand, three concentric circles. It is believed that God marked the stones to sign the origin of the brand. Members of the brand go on pilgrimage to *amoru napongait* and leave a small rock, tobacco, sugar and a branch of *Ethekon* (*Salvadora persica*, or toothbrush tree) to honour their brand and seek God's favours. Several informants told me that each brand has a shrine like this one. Shrines are symbolic marks which transform the perceived emptiness of

[87] The rock of those from *Ngipunga*, Fig.4.8.

desertscapes into cultural territories and inscribe central points in the topology of nomadic maps.

Figure 4.8 Amoru napongait



*

Land, trees, bushes, even if un-marked, even if not clearly visible, may instead belong to someone. This is part of what I term "invisible marks"—such as the extension of the owned land around homesteads (always untraceable for me, but very well known by my hosts and their neighbours).

> "*Newcomers introduce themselves to the elders and decide how much land to take: everything that grows in their land cannot be taken by others for productive activities. People can take fruit from trees to eat but not to sell, and people cannot cut trees to burn charcoal in someone else's property."* (Young woman, PGIS, Kambi Lore, 14/11/2015)

Selling, eating, gathering for livestock, cutting trees: these are all contingent rules in different communities, but commonly there is an extensive area surrounding the homestead which belongs to the owner of the homestead and defines territorial invisible marks (Fig.4.9).

> *"*Ekwar (land) *beyond a man's home sets grazing boundaries, a place which by design of your area of residence, your animals are free to graze in, and others must ask permission; beyond that area the animals will be mixing with other people's animals.*"
> Explained my host father in Urum.

At the same time, certain areas, like shores of rivers or grazing areas, are commonly owned areas where people cannot build their homesteads or take private possession of resources in respect of common rights.

Figure 4.9 Invisible marks



The complexity of all these territorial rules increases by the fact that generally these are not static, but often contested and constantly re-negotiated by considering the dynamic variability of dryland environments, spatial heterogeneity, and environmental gradients

(Galvin 2009; Scoones 1995b). Resources are also accessed by channels of social relations—discussed next.

Social accessibilities

> *At home, while waiting for Lokir, we make some tea for Ethikiria and the children. I try to understand how Ethikiria and Lokir are related. It has always been very difficult for me to understand family relations in my host families. In this occasion what is clear is that whatever link Ethikiria and Lokir share, such link makes it possible for Ethikira to spend the night at Lokir's homestead during her journey to Urum and enjoy the meal we are offering for the night.*

Social groups in Turkana facilitate crucial functions: protection from human and animal predators, information sharing, cooperation, socialisation, securing physical or psychological health. Social relations among agnates, affines, stock-associates, friends, and neighbours enable people (and their livestock) to access resources spread over a vast territory. The indissoluble unit of such functions is the household, a term often misunderstood as "family", which in my opinion too closely resembles a western understanding of parental ties. The household in Turkana is husband, wife (or wives, each with a hut of her own) and children, plus some disabled/old relatives. This socio-psychologic unit is based on sharing, reciprocity, compatibility and complementarity, like any other society in the world. Some anthropologists, like Fox (1967), go to the point of affirming that the elemental (wrongly defined "natural") family unit is not a husband and a wife, but a mother and her unmarried children. This association is considered "basic, while the conjugal association of the nuclear family is derivative". Turkana women are an example of a situation where the fluidity of males (in and out the homestead) is complementary to the agglutination[88] of women in semi-settled camps, where the biological function of reproduction is extended to social activities of nutrition and protection, in the process of rearing and educating children.

The basic social group in Turkana is the *awi*, the household, a "legally independent, stock-owning and more or less self-sufficient" group (Gulliver 1968:353). In actual life *awi* do not

[88]I use the metaphor of agglutination to indicate a process leading to the "clamping of particles", like in porridge-making. It depends on the density of particles, controlled by the fluid. By variating fluidity, it is possible, even if with difficulty, to reverse agglutination which always remain somewhat fluid (differently from clotting, cf. Chap.5).

exist in isolation, but are related to other families, including neighbours and distant relatives. Ecological conditions in Turkana cause a widespread dispersal of extended families, "a number of households linked together by a web of genealogically defined social bonds to form a more amorphous group" (Gulliver 1968:353), as well as of stock-associates, and bond-friends. This social web enhances accessibility to rangelands, water points, grass plains, or other resources (including for example food aid), which is easier if these areas belong to neighbouring or familiar groups. Social relations also serve as a vehicle of passing information, a valuable commodity; information about changes/opportunities/dangers across a "large scale ecology" (cf. sec.4.1). In other terms, it is possible to delineate a socioecological system of relations, which guarantees reciprocal access to different places through channels of sharing, trading, reciprocity, wedding, splitting families and search for allies. These networks form pathways that determine access and rights to resources. However, as conditions change and families move, networks are continuously re-created, and social rules of access negotiated often through the mediation of clan elders to ensure safe passage and utilization of rangelands across district or national boundaries.

*

Turkana herders respond to numerous and various factors of their environment: conditions of the terrain; distances that can be walked with animals to fodder; availability of water for people and animals; availability of pasture; location of kinsmen and other relatives. This is all part of the multi-functionality of space seen by Turkana herders and affects their accessibilities through their lived space.

While moving, following the movement of space, herders also create the world, its outward form (physical, and ecological accessibilities), its identity (cultural territory), and its internal structure (social accessibilities). The herder's lived space is crossed by her "lines" of travel (Ingold 2007). She leaves a record of what has happened and actively enters the constitution of her environment, from within (Ingold 2000:57). Therefore, the herder's mobility is not a natural trait, nor an act of disturbance, or a coping mechanism, but a process of world-making. It is not merely physical motion, but a strategy to access resources which are themselves mobile connecting geographies and sociologies, but not in a deterministic way, as it is involved in the co-production of the same resources and the same space is moving along with it.

A space in which resources are in constant motion—a space which is itself mobile—as the one which opened to my eyes while living with my hosts, is a space which can only be learnt by moving, "wayfaring"—using Ingold's terminology (2000). It is in fact by moving that my hosts taught me their landscape and it is by moving that they gained experience of place through a process of "enskillment" (Ingold 2000), based on a "sentient geography", and through generation of meaning by encoding knowledge in the landscape itself, as I show in the next section.

4.3 Sentient geography: experiences and perceptions of space

[…] *but then I wonder what Latitude, or Longitude I've got to?*
(Alice had no idea what Latitude was, or Longitude either,
but thought they were nice grand words to say).

LEWIS CAROLL,
1865.



Directionality. Lorengelup/Turkana Central. January 2016.

Before sun rises, Ethikiria walks out of the homestead directed to Urum. We spend a few days with Lokir who is back from his family duties. He was visiting friends to ask help for the final part of the dowry of his eldest son's wedding. We are asked if we wish to attend the ceremony and see the killing of the white bull. We are waiting the new moon, and enthusiasm is rising. Dances and songs are performed, ostrich feathers are cleaned, dresses and decorations tried on. Liquor is brewed in the huts as excitement is increasing both for the expected feast and for moving. Finally, the new moon arises and the trek to the wedding site in Lobei begins.

During the journey to reach the ceremonial site, I watched the vigilant herders' eyes acting in their lived space, as they were teaching me how to *see*. The purpose of movement was ceremonial, but the act of moving served several functions. While walking, the eyes of our travel companions were alive inspecting, scouting, surveying and mostly mapping in their minds new grass, state of rivers, shade of trees, footprints of wild animals, whose livestock was seen and where. My GPS was totally useless. They knew where we were and where we were going.

There is a general conception that nomads do not get lost (McDonell 2016). What is this conception based on? There has been a growing consensus that movement is itself a way of knowing (Habeck 2006; Humphrey 2003; Ingold 2011). According to Ingold (2011:102) it is not possible to detach the dynamics of movement from the formation of knowledge, because it is not possible to ascend the mind from the surface of the world and leave the body wandering around: knowledge is embodied in the place-to-place movement. This is part of a broader phenomenological perspective by which the way people experience and understand the world cannot be separated from their living body: the human body provides the fundamental mediation point between thoughts and the worlds (Merleau-Ponty 1945). The living body is stitched to the fabric of the world, and our perceptions of the world are the world's perceptions of itself, which, Ingold concludes, is another way of saying that the inhabited world is sentient and skills, sensitivities, and orientations have developed through a long experience in one's own environment (Ingold 2011:89). To move, one has to supplement vision with other senses acquired through direct perceptual engagement in one's own

environment. Knowledge is thus acquired by trekking, exploring, attending to the lived space, and being alert by the signs it reveals, by literally "being in touch".

Inspired by this literature, I argue that nomads do not get lost because of their development of a "sentient geography", a "poetics of herding" based on their moving through and perceptual engagements with their lived spaces. This section is about experiencing place as a means of knowledge formation and transmission, and generation of meanings of place. The goal is to provide an opposite picture of places generally conceived as "remote", by broadening our understanding of how people relate to places and their environment.

Learning spaces

> *Lokir calls me from the front line: he wants to teach me his landscape. While we walk, Lokir points at some camels at the horizon and asks me to say* 'e-ka-l' (camels) *and the name of their* emachar *as readable from the scar on their body; he points at some mountains and wants me to say* 'e-mo-ru' (mountain or rock) *explaining that he is thinking of moving there soon because grass looks new and a good green in colour; he prevents me from drinking from a new borehole:* 'na-kha-ba-ran', (salty-water) *and points at a shallow-well along the dry-stream where water is fresher and tastier.*

The best way to know the everyday landscape is trekking, when the environment is perceived along a path of observations. Far from being a point-to-point collection of information, herders' knowledge develops "*alongly*" (Ingold 2011:154). As Salza says: "Mobile people do not enact *in situ* but on the way" (2014).

This was clear during the walk with the groom and his family: the journey was equal to the destination, for what it could instruct us about happenings in the nomadic space. I, as the novice herder, travelled through the desertscape with my mentors and specific features in the environment were pointed to me. By exploring the nomadic space, novice herders gain experience and undergo a process of "enskillment" which is made by a mixture of watching, listening, smelling and directly experiencing (Ingold 2000).

Turkana herders have a very practical view of the environment. They know most benefits and dangers that come from it; distinguish fruits and herbs; know nutritional qualities, patterns and distributions of plants; how to read traces to find vital resources. The environment itself

is a crucial school of life. Elders (like older animals in the herd), having proven to master their lived environment—collecting clues disclosed by the environment to unlock the world around them—are the main transmitters of such knowledge and show a distinctive "pride of place", pride to belong. This explains why elders are respected, and why forms of power take the shape of a gerontocracy based on a generational knowledge. In the hierarchy of herders, enskillment translates into authority as well as in a higher degree of freedom to choose where to go and what to do on the basis of cumulative experience.

Elders' knowledge of their lived space is not static. Rather, it is subject to change through their moving, discoveries, and shared experiences across lived spaces; as such, it is better understood as a process rather than an archive. Their viewpoints are not timeless or changeless; on the contrary they are constantly changing and reviewing the images by which the world was seen (Humphrey 2003:140). For example, they offer detailed information about frequency and length of droughts, number of days separating seasons, reduction of clouds and whitening of the sky; about reduced grass quality, and bush encroachment in crop fields or along rivers preventing access to water sources; about lower water table and increasingly dangerous deep wells; and about the disappearance of wild animals "*except the hostile ones"*, referring to hyenas and jackals attacking small stocks.

New knowledge is perpetually organising around observations of an ever-changing landscape. For example, many told me that "*prolonged droughts happen because of urbanization. In the past there were no vehicles and modern things, rain was in plenty and there was grass*". Others believe that "*God has gone missing, angry at people because we started adopting a modern lifestyle and does not want to let water down*". Others blame local diviners: "*The* emuron (seer) *pretends to know more than God and demand people a lot of sugar and* ataba (tobacco) *to do God's job. The* emuron *of the past were good, they were not greedy. Nowadays they only worry about money and alcohol* […]*".* Others instead pointed that "*noise and modern things are responsible for the lack of grass—now, no grass is growing even if it rains*", or "*when it rains, parts of it collect and generate pools, all the animals together in the same place….the grass that could be available… too many animals steps and there is no more grass*". Others complained: "*This deep hole here* (referring to a drilled borehole)*! This is stealing our water!"*.

Knowledge adapts to observed changes. Attending to the formation of new local knowledge is therefore a way to learn about changes in the lived landscape. Changes in the environment,

climate, and society are not only noted and observed by herders (making them highly valuable informants about on-going processes in their landscape), but also accounted for and incorporated in their understanding and perception of space. Thanks to their long experience in their lived places they recognise the complexity of these variations. Through their observations and narratives, we can learn to see the many factors that interplay in drylands being co-implicated in their modification: sedentarisation, roads cutting through bushland, expansion of settlements, deep drilling of boreholes, policies of restrictions and enclosure, changes of social behaviours (modern clothes and alcohol), among others.

Knowledge of lived space, about its dangers and qualities, is encoded in the environment—in this way training new generations and giving meaning to a place which otherwise can feel out of one's control. In the next sub-section, I show the collection of meanings associated with place as produced by the interaction and reflection on place through imagination and performance (Hammond 2004:82).

Acts of perceptions: beliefs, amulets, and other metaphors

Belief in witchcraft is quite consistent with human responsibility
and rational appreciation of nature.

EDWARD EVANS-PRITCHARD,
1977.

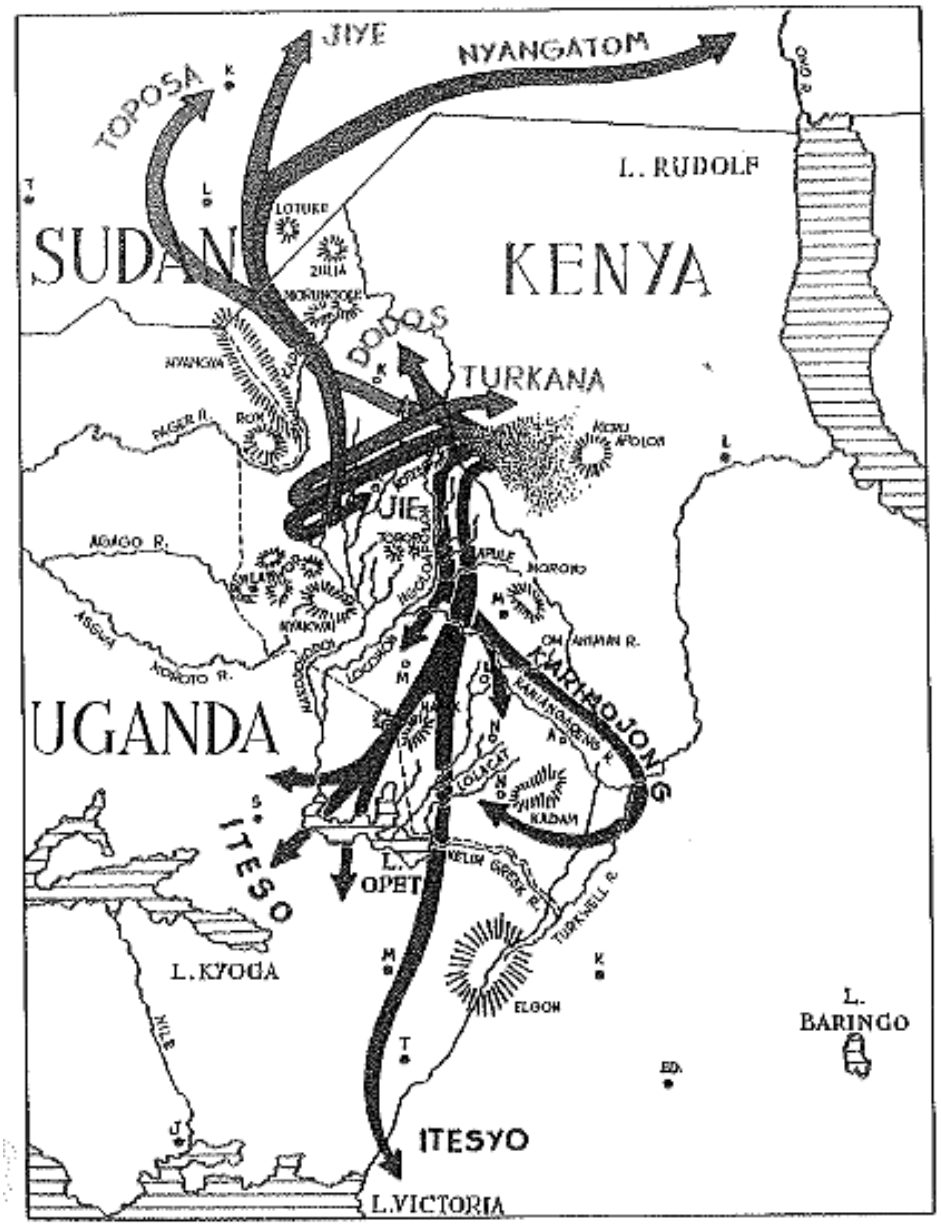
Turkana herders encode their knowledge about their lived space in the environment, in the form of beliefs, amulets, and ritual life, revealing the general perception of the environment. In this way, resources are not only available (as opposed to images of scarcity), but the landscape becomes accessible also in symbolic terms, transformed into an instrument of thought and a vehicle of behaviour (Basso 1996).

For example, direction and placement (inner, outer, back, front, west, east) have local meanings which go beyond pure cartography. They follow river flows, directions of grazing, and movement of the sun. Traditionally in Turkana, West is badness and wilderness, while East is the place of goodness where God lives (Betti 2010). This can be rooted in the historical Turkana conquest of their current east-ward territory (Fig.4.10).[89] West symbolised the old,

[89] Cf. Chap.2.

the place from where Turkana were pushed away and where the sun dies down. East symbolises the good, corresponding to the new conquered territory where they established their own power. These beliefs are reproduced in practices performed by some to this day.

Figure 4.10 Nilotic population dispersion



Novelli (1988)

A Turkana homestead is oriented according to the sun: the kraal opens eastward, the men sleeping area faces the kraal, and wives' huts follow all around clockwise. One must face east in *agatha* (prayer), in the direction from which life emanates; or sleep with one's head towards the east to avoid *longapen* (the disease of craziness), if west was faced. Similarly, a*kiriket*

(meat ceremony), if followed by chanting and praying, may end with throwing the *aburo* (walking stick) towards west while saying "*may all bad things set in the west with the sun, and never come back".* The ending of *amook,* the ritual performed after defeating diseases (to push all bad spirits away where they came form) or to cleanse deviations from the path of tradition, involve walking counter-clockwise, towards east, raising hands and saying "*what makes you hot? You should cool down, may new things come with the sunrise, may you start afresh* […]" (Elderly woman, FN, Koomyo, 26/12/2016).

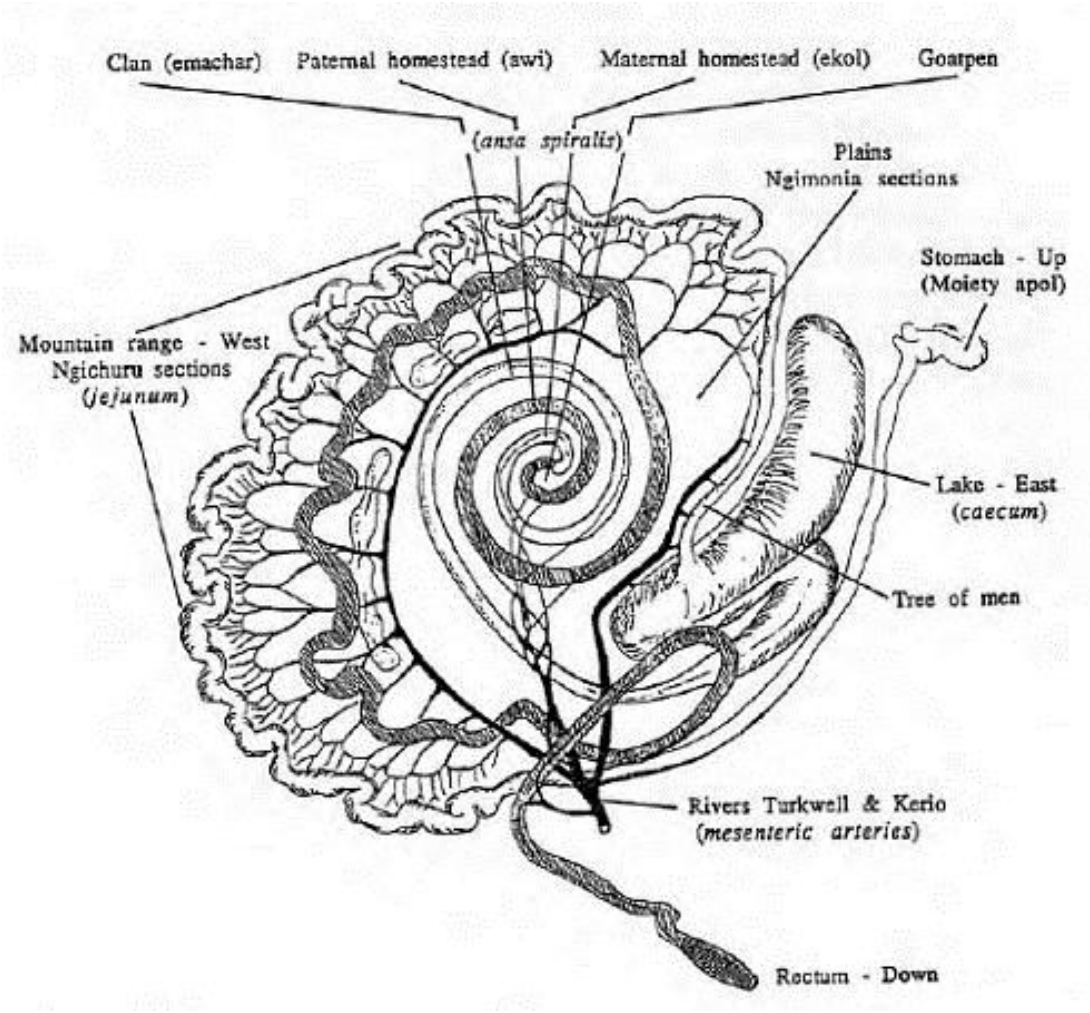
Hotness and coolness enrich geographical directional references. East is not only where peace is found, and God lives, but also where there is shade and freshness, refuge from everyday struggles. Scorching sun, dry wind and hotness are associated with evil forces which rest in the west where the sun sets—a psychological construct to make sense of the lived environment: indeed, the more the sun moves towards west, from its eastern arise, the hotter and thirstier the day transforms.

Beliefs and rituals about space serve to emplace the individual both physically and spiritually within a landscape of larger significance and are used to train new generations of herders, protect them, and instil strength. This is how I was taught what to fear and what to enjoy. I could only possibly learn about the danger of thorns which "*steal skirts (and huts)*", by walking through them and being infectiously cut; about hidden demons among mountain rocks tripping travellers, by strenuously climbing through them and feeling my legs hurt; about the evils in the wind, by being lost and feeling anxious in the middle of sandstorms. It was as if the variability of the landscape took on its own agency, psychologically deduced from the inherent unpredictability of the land.

In response to the agency of space, Turkana herders have developed different scales of practices of divination, to regain control over their land. These include, for example, forecasting and rainmaking, both through the help of diviners (*ngimurok*).

The former, which I witnessed myself, can happen through the inspection of a goat's entrails. Turkana represent their territory over goat's intestines curled upon themselves (Fig.4.11).

Figure 4.11 Entrails map



Broch-Due and Schroeder (2000:63)

Intestines are laid on the ground by diviners and spread to take the shape of the surrounding landscape. Elements of the intestines such as arteries, cysts, and clots represent landforms, creeks, mountains, plains, and Lake Turkana. From irregularities in the entrails, seers find visual representation of future events such as the upcoming of drought or the danger of raiding from neighbouring communities, or other transformations in the landscape. This shows not only the high investment of Turkana herders in the representation of their territory, but also a fluid perception of the same (Broch-Due 2000). By using soft animal material, the entrail map is necessarily flexible and topographic features become signposts and not fixed elements in the representation of space as seen from within and not from above.

Another way to forecast future events is through messages sent to the *emuron* in his dreams by God—*Akuj*—a monotheistic deity. These dreams are visions; visions of the future. They can

be joyful dreams with rain, milk and fat, or they can predict bad events to come: diseases, droughts, raids.

> "*We do see it in visions. We predict bad disasters. God tells several* ngimurok*, from different corners. Especially human and animal diseases, droughts; we can also see the good seasons to come, when people have plenty to eat*", a local emuron explained to us in Lorengelup (KI, 10/12/2015).

If the scale of the bad event is large and involves entire communities, several *ngimurok* may receive the same visions and collective action is required. The intervention performed in the case of a bad drought approaching, for example, requires the reunion of powerful elders and *ngimurok* together with members of parliament (MPs) and other government representatives, who collectively pray to *Akuj*.

> "*We heard all traditional leaders were gathering next to Kalobeyei, next to Moruanayece, where Turkana believe to be originated.*[90] *We went there. MPs and government people were also there. And then it rained, I still cannot believe it.*" (FN, Lodwar, 05/02/2017)

The quote above is from a non-Turkana UN official, who recently moved to Lodwar. I could not tell how much of his excitement was raised by the sense of "traditionality" he could witness, or by fear and delight for the real drops of rain that fell after the ritual was performed. Either the ritual made it rain or not, for non-Turkana this is a spectacular performance. For Turkana herders this is a way to perceive their environment and make sense of it.

Similarly, often when there is a strong dusty wind some people would stretch their right arm and shake the hand against the wind saying "*taman kayaye*" ("return to your land", or "go away, evil!") to the devil/spirit carrying the wind. Turkana herders encode in the wind its potential dangers through a shared performance—teaching the novel herder what to be careful about, offering protection and strength toward crossing unpredictable spaces.

Protection is also offered by amulets and talismans. It is not rare to see herders, including small children, wearing a small piece of wood (*ekamuka* or *ebata*) around their neck, wrist or even around the waist (women), as a protection against bad things (snakes, scorpions, spiders

[90] About the myth of origin see Barrett (1998) and Chap.7.

or the "evil eye"[91]). Others wear around their arms or legs *epira*, a rubber ankle/wrist bracelet which is believed to produce a certain smell that chases snakes away. There is also a plant's root locally known as *ekeriau* (*Cyperus articulatus*). Once bitten, chewed or grounded into fine dust, it can be spit on the ground in the direction warriors will go towards a raid. The root will offer protection by making them invisible (or prevent the enemy from noticing them), while they can see the enemy. In a way, for the Turkana, the power of amulets moves around a dangerous space and eventually removes evil spirits and ward off bad things as well as making people aware of potential dangers.

All these examples show how space holds great significance and is used to encode knowledge, transmit it to new generations, and provide strength and control over an agent space. Traditionally, questions of how people interact with resources of their environment to obtain a livelihood are treated separately from how life is imaginatively constructed in mythologies, ceremonies, and rituals (Ingold 2000). This separation holds on a distinction between the natural and the cultural; that is, on the belief that there is a real environment (independent from our senses) and a perceived environment. In contrast, ways to act in the environment are also ways to perceive it. In other words, the landscape also becomes the realm for imagination. The ecological realm is not only connected but inseparable from the economic, the spiritual, and the personal (Rotarangi and Russell 2009). Thereby, a place seen by outsiders as remote, simply because distant from urban centres and development hubs, is instead a place of intrinsic meaning for those who interact with it in their everyday life. Hopefully without falling into Evans-Pritchard's famous caveat described by Holzman (2009) that: "We know, of course, that witches do not exist" (1977), I contest that remoteness is a site of "grass-root resistance" (Anderson and Saxer 2016). Perhaps a different form of resistance than what Saxer and Andersson's paper alleges, and yet Turkana herders also find in the remote a refuge for ritual life amidst modernizing forces that emanate from urban centres.

Turkana's representations of their lived environment yield a different gaze and perception of places generally framed as "remote". By walking with Lokir's family I have learnt the level of engagement of herders in their landscape, their efforts to learn it, and give meaning to it. I have learnt that cognition is both motion-sensitive and site-specific (Macfarlane 2012), and

[91] Cf. Chap.6

draws from the experience of place. If outsiders in the Turkana plains, away from urban centres, feel "out of place" (Rodgers 2018:104), Turkana herders have instead developed a sense of place and belonging.

Discussion: resilience and the nomadism of space

Representations of space, "conscious reflections on or about place", are born from the relationship between individuals, groups, and their environment through everyday practices and the experience of inhabiting it (Hammond 2004:9). By "seeing like the herder", clouds are transformed into mobile shades; thorns turn into needles and nails; stones become gifts to the mountains; rain is the word of God; plants are medicine to hunger and weapon against diseases; water drops sprinkle purification; trees and roots offer protection, paths are borders of friendship and enmity. "Seeing like the herder" means seeing more than a bunch of resources spread over a geographical area. It means celebrating differences given by the heterogeneity and variability of resources; it means acknowledging movement, recognising space as mobile and moving along.

To most westerners and Kenyans, the Great Rift Valley which includes Turkana is unwelcoming. To most Turkana, this region is the place called home where to live and herd animals. By unpacking the territory occupied by Turkana herders in term of large-scale ecologies connections and accessibilities, pockets of high potential areas emerge (hills, mountains, valleys, streams and rivers, pasture lands) (Oba 1992). In this, Müller-Dempf is correct: nature in Turkana offers both relative abundance and wellbeing as well as scarcity and hunger (2014). Rather than seeing this variability as a constraining factor, I urge to see its potentials.

In this chapter I have shown how drylands are not static stretches of nothingness, with scant resources, and remote; rather, they are alive, movable, and inscribed with local meanings. The nomadism and richness of drylands, however, only emerges if one begins to *see* from within.

By seeing, experiencing and perceiving Turkana herders have developed what Rival may call "indigenous knowledge" (2009), although I prefer local knowledge (nobody is really indigenous anywhere). This knowledge is inherently dynamic and itself a form of resilience in the ability of people to generate it, transform it, transmit it, and apply it; in the information it retains and insights of change it provides. This knowledge is not just about place but

encompasses also identity and belonging. It encompasses place attachment and a certain "pride of place" used to explain, regain control, and make sense of the surrounding landscape, as represented by the symbolic meanings of places and resources (beliefs, amulets, and ritual life).

Conversely, abstraction—at the bird's level and away from the ground—and homogenization of places into zonal cartographic representation fails to include such understanding: in it there is no sunlight, and no moonlight, no wind, no thorns, no enemies, no neighbours, no relatives or friends—it is devoid of people and static in spatial features (Ingold 2000). S*eeing like the state*[92]*,* in drylands, means looking *at* the *remote* and not experiencing it. Scott (1998) argues that these views reflect a way of seeing which sought to impose order on the chaos of life and replacing "views from somewhere" with "views from nowhere".

Acknowledging "views from nowhere" as views from within, new insights and interpretations of space rise which make resilience a matter of perspective—a quest of sight. A renewed perspective over drylands would help move beyond a representation of their inherent variability as solely a manifestation of crises. Rather, it becomes a representation of space nomadism. From this renewed perspective over drylands we could conduct "better science" (Ingold 2000) not only based on "high scientism" but also on a "poetics of herding" in which there lies a different conceptualisation of resilience and place, that emerges from seeing, experiencing, and belonging.

*

> *We walked for a full week before reaching Lobei, and then waited for the wedding to happen an extra one. The bride's father had not arrived yet from his gathering of relatives and friends—an error in coordination between the two families. We went back to Urum after the wedding, exhausted from the long trekking and little food, and dusty from the lack of washing. We find the hut of our host locked with a chain and bolt. All our things inside, especially the food we left and craved for, while approaching the village. We are informed that our host-family had left, closed the house secured, and would not be back for months. While thinking what to do, we decide to go to the*

[92] Scott (1998).

drilled pump next to the dispensary to refresh ourselves. But the new blue-pump technology tested in Urum had stopped functioning some days earlier. We go to Kachaikol seasonal river instead and dig water out from the ground. There is still tumult in the village because of a food distribution which happened just after we left the village at the beginning of our journey. One of the women takes us to the hut built as storage for food distributions. The wind had blown the sisal-structure down. Sacks are lying on the ground since a few days after Christmas when a government car brought them. No one is responsible for the distribution and people are kept waiting. Those who came from far away—hoping to get a share—are now leaving to go back home, hopeless that food will soon be distributed. Every sack has a tiny whole broken through the plastic strings, grains of maize spilled on the floor creating intertwined lines in all directions away from the storage. People are walking at the horizon with small bags on their heads.

From the herder's sight, the variability which characterises dryland's socio-ecologies, also characterises socio-economic and political dimensions of events in space. From their perspective, and not from desks of planners in capital cities, everything is uncertain and variable: people met on the way; vehicles passing through the dirt roads; number of charcoal sacks which will be bought; development programmes which are funded, delayed, piloted, failed, expanded; water drilling, boreholes construction, and boreholes exsiccation; food distributions.

I started seeing all these variables as additional forms of variability (social, economic, and political forms of variability) which are seen, experienced, and perceived in the same way as changes in rain and flourishing of pasture—as variable resources to gain a living from—and in the same way contribute to the production (and destruction) of space. Definition of space is thereby not only limited to its environmental features but also encompasses relations with social, economic, and political environments—to which I move in the next chapter through the example of the creation of villages and settlements.

Chapter 5 ~

Clotting nomadic spaces: on settlements



Donkey blood clotting inside a pot after slaughter. Kambi Lore/Turkana Central.

December 2015.

Introduction

Human mobility is a complex phenomenon but one that traditionally has been overgeneralised and often analysed in terms of simple dichotomies.

JONATHAN BAKE,
2001.



Urum, February 2016

Urum emerges out of a bump from a deep and sinuous wadi. The dirt road from Lokiriama runs for 50km before reaching the village, 150km from Lodwar town. Tracks of corrugation, waves of stones, ups and downs of dry rivers, all shape the fluctuating bouncing of overloaded pick-ups. From a distance, it is possible to see the blue roof of the primary school and corrugated sheets of the shops in the village. There is no electricity nor phone network in the small centre. There is hardly any evidence of what is called “development”. Urum lies in a valley close to the border with Uganda; mountains all around. Urum is a

labyrinth; narrow alleyways intertwine around the closely built sisal huts. Less than 100 inhabitants are living here. A renovated dispensary, where no doctor wishes to work, is a little separate from the village, in a flat area once used as a landing strip by small aircrafts, a memory from colonial times. Next, a recently introduced blue-pump for water—hard and dry, most of the time. In front, there is a food distribution store made of grass and recycled relief-bags.



Lore, November 2016.

Kambi Lore lies with dust, next to a mirage. The air trembles over the hot cracked soil. Blue hills shape the horizon line. Around, a 360^{o} circle of flat golden, sand. Tall trees and dense bushland thickly follow wadis, like sinuous snakes. A white signpost informs travellers the entry into Kambi Lore, 45km away from Lodwar. The dirt road cuts the village in two: on one side there is a primary school, a dispensary, latrines, broken water-tabs and a few huts; on the other side, the village expands, approximately 60 households live here. Kambi Lore is the small administrative centre for a further 10 villages born in its proximity. Round huts made of weaved dried palm leaves are built next to each other; pathways marked with human and goat footprint signal busy days. There are a few shops made of mud and iron sheets. Rays of

light reflect from solar panels leant on the walls of the shops. You can charge your phone and find tepid light at night. There is one black water tank standing with one single pipe directly feeding into the chief's homestead. Another tank is rolling on the ground, empty. Grains of sand fall from a water kiosk, which has not seen water for a long time.



Longech, February 2017

Longech can be reached only with a boat. It lies on dunes of sand on an arm of land that stretches into Lake Turkana. Cars and motorbikes wait for fish to be brought on the mainland shores. On the other side of the gulf, seagulls play with fish entrails. Most huts are concentrated on top of the peninsula overlooking both the *small lake* (Ferguson Gulf) and the *big lake* (Lake Turkana). Coming down the peninsula, huts blend in with the growing vegetation of palm trees. One dispensary and one primary school are attended by the many villages dwelled along the peninsula. Shops of various kind (groceries, barbers, TV-saloons, butcheries, clothes shops, carpenters), churches, and drilled boreholes with alkaline water are

spread among the huts. Shores of the lake are re-drawn by boats, nets and *stakes*[93] of fish waiting to be collected by middlemen and transported away for bigger markets. Dry fish, salty fish, smoked fish, fresh fish, rotten fish: fish is sold in all possible ways; locally, along the shores and close to urban centres like Kalokol, Lodwar and Kakuma; nationally to bigger markets in Kitale or Kisumu; internationally to Congo. The Beach Management Unit office overlooks the whole gulf from its north position at the headland, and controls fishing activities. Next, derelicts of old colonial dreams are found in the shape of an abandoned lodge which was once used to rest and admire the sun setting into the jade water and now, deprived of anything valuable, is a communal open latrine.

*

This chapter is about people and particular places, types of settlements which are blossoming along improved roads and telecommunication infrastructure, called *loline* by Turkana herders—"along the line". These are small villages, often organised around a road with some levels of administration (i.e. chief homestead) and some basic services (an infant or primary school, a dispensary, some water pumps, a few local shops, etc.). They are the administrative posts for a number of further, even smaller, villages which have arisen in their proximity, and are generally used for food distributions, village meetings (*baraza*), FGDs by governments or development agencies, and it is where mainly elders and women with small children reside. *Lolines* are located at the edges. The edges of development, with limited services and difficult to reach, and, at the same time, at the edges of a process of sedentarisation and "modernisation"—or it is believed so by outsiders and also some insiders attracted by development narratives. To many, the rise of *lolines* in rural Turkana signal the changing status from nomadic to semi-nomadic pastoralism, eventually leading to urbanisation. Yet, the story I show in this chapter is somewhat more complex than this: *lolines* have living bodies.

In this chapter, I look at these places from within, how they are dwelled in, made and unmade, and how they are seen and used by their inhabitants. The goal is to explore meanings of space, as inclusive of its social, economic, and political dimensions, from the perspective of Turkana herders and in turn contribute to a better representation of drylands. The subject remains,

[93] A *stake* is a local term used to express piled-up fish ready to be sold at a given price (it contains around 4000 small dried fishes).

throughout the chapter, the village itself—as an expression of space making. While observing inherent dynamics of these small villages—for which there is a substantial shortfall of studies—this chapter reflects on the meanings of sedentism (and in turn also of nomadism) in the context of drylands and societies largely involved with pastoral activities.

The scholarly and development literature on pastoralism still largely draws from an outdated opposition: nomadism *vs* sedentism. This opposition has been long questioned[94] but it persists in the epistemological and methodological infrastructure of the pastoralist scholarship—as a category of reference, in turn influencing policy making in drylands (Krätli et al. 2015). With reference to Kaufmann's concept of a "sediment of nomadism", in which pastoralism is still, implicitly or not, referenced and essentialised to "pure" degrees of mobility and "pure" food economies centred around livestock (Kaufmann 2009), I argue that, in pastoral settings, sedentism is equally essentialised. An uncited paradox in the scholarship is the possibility for the higher mobility of "villagers" than "nomads". I therefore reverse the critique to the nomadism/sedentism dichotomy, generally tackled from the perspective of "pure nomadism", while here I question the relevance of ideal types of "pure sedentism".

The initial dichotomy nomadism *vs* sedentism is itself misleading (Humphrey and Sneath 1999) failing to reveal the dynamic and fluid character of pastoral societies. It ignores that pastoralism in the 21st century still exists (Fratkin and Roth 2005) and might also be gaining new momentum (Meuret and Provenza 2014). It forgets that settlements themselves, if viewed from their foundational action, are expressions of a process, a dynamic act of settling (La Cecla 2011). Rather than representing "a good step towards sedentarisation" (Spooner 1971:204), they may be an expression of agency, adaptation, and response to variations in society and environment.

I base my reflections on the daily, simple and complex, practices of people in drylands, whom—with their actions—build, shape, and create anew the localities where they live in response to complex forms of social, economic, and political variability. In this, I hope to provide a different understanding of pastoral mobility, beyond a survivalist migration from A to B—where A means "absence" (scarcity) and B "better grazing"—and beyond its dichotomic relation with sedentism. One of the major problems we are facing, as researchers of mobile

[94] I.e. Humphrey and Sneath (1999).

pastoralism, is then both methodological and conceptual. One which turns to simplistic categorisations and classifications to explain what is, after all, a very complex phenomenon: mobility (cf. opening quote). Work on this dichotomy is therefore crucial. I do such work from the understanding of "settled" pastoralists, or rather from their "settled localities".

Inspired by the phenomenological bent of place-making as an act of "being in the world" (Heidegger 1971), and by the framework of the body to explain city transformations (de Certeau 1988), I start this chapter in sec.5.1 by highlighting the many factors at play in the creation of *lolines* which bring multiple layers of contested meanings upon the same place. Rather than developing a single "sense of place" whereby all those who inhabit it consider it in the same way, "space is emplaced differently" by the different people who come and go contributing to its making and unmaking (Hammond 2004:9). In so doing, I contest classical push-pull models adopted to explain processes of nomads' sedentarisation to show the multiple narratives beyond creation of place and its inherent dynamism.

In sec.5.2, I argue and show that life in *lolines* is not as settled as imagined, in turn shaping the contours of *lolines* themselves. As I was getting more and more familiar with my field sites and started working without the help of a local assistant hired directly from the visited communities[95], it became more difficult to find people to interview in villages than in the shrublands of camel and goat shepherds, or in the mountains of cattle' pastoralists. During the day people's homesteads were unattended most of the time, livestock kraals opened, and social gathering places like shops or certain big tree's shades not very busy. Then, I started hearing. I heard whistling coming from river bushes and maybe the sound of bells of oxen; kids laughing and running after each other while going to shops to buy sugar; I heard whispering around wells and water points; I heard digging sand, dropping sweat, and pouring water which echoes in empty jerrycans; motorbikes rumbling; I heard fire lightening and wood burning; tree branches breaking, axed and tied together, and then I heard them falling from someone's head, and someone starting to laugh loudly.

Every sound resonated as an action. Every sound was a verb, a tireless movement. Following these sounds, I realised that both, villagers and villages, move through channels of connections—unfolding "lines of becoming" (Deleuze and Guattari 1988)—and what I term

[95] Cf. Chap.3.

"pulsations"—continuously creating places anew. Thus, a better way of looking at sedentarisation is, as proposed by Sneath and Humphrey (1999:179), "the material form of individual strategies—a complex process of dwelling and settling", as this view includes all sounds I have heard, and allows movement and change, constructions and destructions to be accounted for.

In the process of creation of *lolines*, sec.5.3 shows the rise of a new model of space use and new types of mobility as well as a new process of "enskillment" towards the creation of complementary economies centred around cash and aid. However, along this process, expectations and dreams rise, on the one hand guiding further production of space, on the other hand translating into frustrations and fears when expectations remain unmet.

Variability is systemic in Turkana, and somehow manageable, but for those who are prevented from navigating by circumstances, the risk is to succumb to the "clotting of space", to the immobilisation and paralysis of space. In my metaphor, such a space comes from a living organism (blood), and dries up, changes density, shape, colour, smell, down to complete stagnation and worse. In this sense, a clot is a dying space where: malcontent rises, relations break because of rigidity, people's capacity to *see* decreases. A clot has no resilience: it shall never recover its shape.

The understanding of resilience in relation to the lived space should instead convey an appreciation of its mobility as *seen* from within. Failing to see this mobility, ignoring or obstructing the possibility of space to move, by imposing borders or permanently stabilising some of its features (permanent boreholes, permanent irrigation, permanent food distribution, and the like), may in turn create what Scott calls "iatrogenic diseases": diseases generated by maltreatments.[96] It may lead to the "clotting of space", the opposite of fluid space.

[96] Scott's lecture at ODID Annual Lecture (2019): In the Praise of Floods and Wetland Refuge.

5.1 Creation of *loline* and the emergence of multiple layers of contested meanings

When we reject the single story,

when we realize that there is never a single story about any place,

we regain a kind of paradise.

CHIMAMANDA NGOZI ADICHIE,

2009.



Hut's ceiling under construction. Kambi Lore/Turkana Central. November 2016.

We are stuck in Urum. After the long journeying in the surrounding of the village we are now chancing ways to return to Lodwar. There is no public transportation in Urum, and days pass without a single car running through the dirt road close to the village. Together with my research assistant, we take the opportunity to understand how the village was created, which turns to be a much more difficult task than expected. Multiple voices echo and the village takes on various meanings. Suddenly, one day, while discussing with my assistant about ways to untangle this story, a rumbling sound from cars engine reach us. We run. Three pickups are stuck in a bend of the dry river just before the road enters Urum.

*

In Turkana, small centres were built upon the arrival of the British in the early 1900s (Müller-Dempf 2014). Before colonisation there were hardly any urban settlements. Housing structures were built with branches or other materials found in the environment and were meant to last only until the next move (Rodgers 2018:79). The first permanent settlements were born out of the encounter with the colonial administration, whose action was not only limited to countering the expansion of Abyssinian forces, bureaucratisation of society, and introduction of trade and taxation, but also aimed at extending control—militarily, if necessary—over grazing fields and water sites, and establishing famine camps (cf. Chap.2). Successively, the colonial administration expanded its interventions further also to include the establishment of a fishing scheme along lake shores, experimental irrigation along Turkwel river, livestock markets, administrative centres and urban areas—interventions which, according to some scholars, allowed the penetration of capitalism even in the northern drylands (Awuondo 1990) and the eventual suppression of forms of resistance against the colonial force (cf. Chap.2). After independence, missionaries were allowed into the district and were soon joined by international humanitarian and development organisations such as the Red Cross, Oxfam, and Norad[97]. They started building churches and schools initially in the newly growing urban areas, and then moved also to the peripheries of famine camps where pastoral nomads were re-settled in the hope of promoting viable alternative livelihoods, other than herding. It was around these meeting points between nomadic pastoralists and outsiders

[97] Norwegian Cooperation.

(administrative sites, police stations, water points, and distribution centres) that settlements started growing, and eventually became small towns (Lodwar), especially when intercepted by traders.

Much of sedentarisation history in Turkana focused on large towns' developments (Lodwar, Kakuma, Lokichogio) (CIDP 2013- 2017). Attention to large towns betrays a certain sedentary view of drylands and ignores the current proliferation of small towns and minor centres rapidly spreading, gushing and senescing, in the rural countryside, the development of which is situational and contingent on the interplay of many factors.

Dominantly the literature refers to conventional push-pull and gravity models derived from migration theories (Harris and Todaro 1970; Lee 1966) to explain nomads' sedentarisation. Classically, these theories have focussed on disparities in conditions between place of origin and place of destination, suggesting that migrants are pushed by low incomes in their countries and pulled by better prospects in more affluent areas (Van Hear, Bakewell, and Long 2018). Similarly, in sedentarisation models there are pushing-out and pulling-in factors:

- Push factors: loss of common land, livestock raiding, shocks, droughts, resource competition, population pressure and conflicts.
- Pull factors: services (water, schools, dispensaries), food relief, and economic opportunities (petty trade, wage labour).

This approach proves rather limited in the attempt to understand a phenomenon as complex as sedentarisation. Bake (2001), for example, warns against the risk of dichotomisation proposed by push-and-pull theories that seem to imply the absence of free will, aspirations, and dynamic decisions. In addition, the literature is polarised around the ambiguous role of settlements as both refuge and entrapment—either seen as a step towards modernisation or instead towards the creation of "places of poverty and destitutions" (Broch-Due and Sanders 1999).

During my sojourn in Urum, Kambi Lore, and Longech, the main administrative centres in the three sub-locations of my field study[98], it became clear that social processes bridging a nomadic to a settled way of life are more diverse and fluid than those reported in push-pull

[98] Cf. Chap.3.

models, and multiple (at times contradictory) spatial imaginaries are created. In the following pages I contest push-pull models of sedentarisation by showing:

a) Heterogeneity of narratives upon settlements' creation;
b) Mobile and transformative nature of villages themselves (sec.5.2).

The following pages reconstruct the foundations of Urum, Lore, and Longech at a triple level of analysis (administration/chiefs, collective memories, and individual/household experiences) to show the complex tangle of narratives and perceptions behind their creation.

*

Chiefs and sub-chiefs from the three villages present similar "chief-centric" visions of the creation of the respective administered centres. The tone of their narratives is well summarised by the following quote by the location chief from the lake shores:

> "Only w*hen chiefs are appointed, good developments start and lots of changes take place. Education and medical facilities, for example* […] *Then, churches and NGOs also come to help our people…and the place grows.*" (KI, Longech, 13/03/2016).

All interviewed chiefs, often coming from an urban/semi-urban milieu, reported that prior to their arrival to the centre they found a desolated area waiting for "*good developments"*, which they transformed in a fervent place, appearing much more "developed" and holding great potential for further growth.

> *"At that time, there was nothing here. I was working as veterinary officer in the area, and started recruiting people to come to live here, so that I could ask for registration of voters and establish the village in 2009. The only distribution point at the time was in Lokiriama* (approx. 50km from Urum), *and with the enemy still around it was very dangerous to walk that direction. I wrote a letter to WFP and World Vision to implement a food distribution point. Food distribution began in 2011 and more people settled since, now we can find water here and a few shops have opened."* (KI, Urum, 02/02/2016).

Urum is a new village, only established in 2009, and developed along the road to Kakuma. Before my arrival to Urum, the national government had built a dispensary, a primary school, and an early childhood centre, but overall there is still little evidence of "development" in the

area (Rodgers 2018:89). The chief explained that before 2009 there was no permanent settlement; people used to only temporarily camp and plant sorghum when it rained, or to form defence clusters (*arumrum*) when the enemy was raiding. To establish Urum as sub-location, it needed to have its own administrative centre where a chief could operate. The current chief of Urum, thus, started holding *baraza* (village meetings) instructing people to build permanent homesteads. Once Urum was recognised as a sub-location and following the death of three women who were walking from Lokirima back to Urum for a food distribution, the chief convinced WFP to build a road to connect Urum with Lokiriama and to start a food distribution programme directly in Urum. Opening shops and drilling boreholes further contributed to the growth of Urum.

> *"Lore started growing in 1997, when I moved here. People wanted to stay closer to get services from the administration. Before my arrival there were only two households and one teacher. Parts of the school were built in 1995, but there were only class 1 and 2. When I arrived, we extended it up to class 8, and now many children come here to study. Then, I wrote a proposal to Kerio Fair Development Authority to build a dispensary. It was built in 2002* […] *Also, there is an increasing number of boreholes and pumps which I asked for and are now helping our lives here."* (KI, Kambi Lore, 30/11/2015).

Kambi Lore has a relatively longer history than Urum. Recognised as a sub-location at the end of the 1990s, it was previously only inhabited by very few and scattered households. Successively a school started being built but only after the chief's arrival it expanded and became operational. Now, thanks to the chief, a dispensary and several boreholes, solar and wind water pumps are found in the area. Daily public transportation links, for a small fee, Lore with Lodwar and Kerio. Several shops and a food distribution point are also present.

> *"I was appointed in 1997; and I have since contributed to the registration of many villages to facilitate food and cash distributions. I noticed there were few villages here with no proper housing, and thought it was wise to increase their number* […] *More people have since moved here, also from interior places, came and settled."* (KI, Longech, 13/03/2016).

Longech is possibly the oldest of the three *lolines* and the largest in extension and number of inhabitants. However, the chief narrates that only when he was appointed to work in the area, it took a more permanent shape. Houses started being built with mud and shacks, the number of villages increased which in turn meant higher chances to be granted more food distributions and more funds in general for the provision of services. Facilitation by the national and county government, missionaries, and development/humanitarian organisations in fishing operations contributed to the entrepreneurial atmosphere along lake shores. Several churches, boreholes, early child centres, shops, one primary school, and one dispensary are mainly concentrated on the headland of the peninsula. Daily boat services connect the peninsula, on which Longech is located, with the mainland shores. From there pro-boxes and motorcycles can take travellers to Kalokol and Lodwar.

According to the chiefs' narratives, the number of people who settled increased following their appointment to the respective *loline* as a result of a shared desire to be closer to the administration, benefit from their efforts to attract external help, and also because of their visions of the growth of the centres, either in the shape of "*livestock trading centre"*, "*tap water in all homesteads"*, or a "*five-star hotel"*.

> *"I am now mobilising for other food distribution points also for the villages in the surrounding of Urum* […] *and I want the village to move closer to the dispensary, in the flat area over there* (pointing)*. When you will come back next time there will be a trading centre and many* hoteli (restaurants); *each household will have an assigned plot for their business, they can build a house or a shop or whatever they would like to do; you will see, this village will grow big."*(KI, Urum, 06/02/2016)
>
> *"These villages are growing. We will soon have water in each house, and many more advancements."* (KI, Kambi Lore, 30/11/2015)
>
> *"Now I am planning to build a secondary school, a health centre, and re-open the lodge as a five-star hotel."* (KI, Longech, 13/03/2016).

*

Interestingly, chiefs' narratives are totally absent in the collective reconstructions of the origin of the villages—if anything, the role played by chiefs was mentioned reversely: "[….] *and then the government brought the chiefs*" (FGD, Longech, 09/02/2017).

Only after villages were created, and because of their creation, chiefs were appointed and sent by the government; according to some, compromising elders' authority. In all three *lolines*, as part of FGDs or informal conversations held with groups of people, I was presented with another narrative—a "village story"—for the reasons behind the creation of the village. I have heard these village stories time and again, to now believe this is how the village presents itself to outsiders.

Urum developed along the road to Kakuma. It started as a collective *arumrum* or *adakar* (neighbourhood): the settlement of multiple families within a common fence. Explanations I was given for these settlements vary. Families living in the same *adakar* are connected by kinship, affinity, friendship or spatial proximity. For some, it forms a grazing community; families living in the same *adakar* share the same water sources, responsibility in maintaining them and take animals to close forages. For others, families come together mainly for security reasons, especially in border areas. Many others referred to *adakar* as a grouping emerged for dancing purposes where youths would travel to, especially during full moon nights, to sing and dance away the tiredness of the day. Others instead remembered the time spent in *adakar* as the "*time of sharing milk between many families".*

In the *adakar* in Urum, conflicts and search of security pushed people together under a small hill called Urum, which literally means "coming together" within a common fence against the enemies (*arumrum*).

> "*The enemy was all over the place; there were a lot of conflicts. A lot of people died in these mountains* (pointing). *There are many graves around here, and bullets in the trees. People moved together mainly because of the enemy. We had to stay together to protect each other.*" (Elderly man, KI, Urum, 23/12/2016)

Afterwards, the village story continues, the government was informed that people were living there and sent a chief who started building structures (school, dispensary, hand-pump). Food distribution was then brought to Urum, and a higher number of people have since settled, "*in line with relief*".

Lorengelup sub-location developed along the road to Kerio, around a village called Kambi Lore, which literally means "home", a place where people return after their long migrations. It is by many still remembered by the name of the seer Nangodia, the first inhabitant—when nobody

else was living there. Drought and humanitarian interventions emerge as main drivers in the creation of Lore centre.

"*Everything started in Ekaru a Korie*". The year 1991/1992 is remembered everywhere in Turkana as a disastrous year; *Ekaru a Korie* (the year of something colourful, referring to the coloured tins for oil distributed by Oxfam), *Ekaru a Wimbi* (the year of millet), *Ekaru Ekalkal* (the year of sacks), *Ekaru Adicho Nanyang* (the year of yellow maize powder with egg yolk), *Ekaru a Red-Cross* (the year of the Red Cross). In Lore, *Ekaru a Korie* is a vivid mark in the collective memory marking the creation of the village. "*The very origin of this place is a food distribution programme*" (Elderly woman, PGIS, Kambi Lore, 13/11/2015).

People remember learning about the government for the first time during *Ekaru a Korie*, when it was reaching all parts of Turkana, giving food and clearing roads. A few years after *Ekaru a Korie*, a chief was sent to Lore. Since, as the population grew, the village also grew with new shops, new classes in the school, new medical personnel in the dispensary, new boreholes and water pumps. It is the growth of Lore centre and the road—according to the village story—that attracted more and more people.

> "*The settled life was pushed further by the development of the road; we take advantage of the road to get relief food, and we also help ourselves by selling charcoal and other things along the road when more vehicles pass by*" (Elderly woman, KI, Lorengelup, 16/01/2016)

Villages along Longech followed the lake and its economic waves. Fish, business, and the search of good luck which brought people together. In the settlements along the peninsula there is a less dominant village narrative than in Urum and Lore. The *ngimeramuk* (the clan of those who wear crocodile sandals) are recognised as the first inhabitants, those who have always been living there and have always been fishing. All the others came, "*and became many",* being brought by the government during droughts in other parts of the county or because they had heard of a "*good life"* next to the lake.

> "*People here come to start a business with fish, either following their luck when they hear there is good fish in the lake or brought by cars by the government when there is hunger in other parts of Turkana."* (FGD, Longech, 15/03/2016)

Fishing was seen by outsiders as an alternative to relief food from as early as the 1930s (Oba 1992). Soon it also became an alternative to pastoralism and started being proposed as a commercial activity. This process was accelerated after the 1960-1961 drought, when 30,000 people were forced into famine camps; 10,000 of which were sent over the lake shores (Kolding 1989). The mission-run Kalokol Fishermen Cooperative Ltd (1962), followed by the Turkana Fishermen Cooperative Society (1968) led by the government with the support of Norad represent the first efforts to promote a modern fishing sector in Turkana by bringing former herders to the lake shores and providing them with fishing equipment and training.

> *"Foreigners came with* nangorok *cars* (cars with black and white patches) *full of people from everywhere in Turkana. They also brought nets and plastic boats which were distributed among the different villages on the peninsula. So, in the end the newcomers were the only one knowing how to use these new fishing gears. The* ngimeramuk *had to change their way of fishing and learn from the new people brought along."* (Male elder, KI, Longech, 14/02/2017)

Fishing was remunerative, and—the village narrative continues—word spread also to non-Turkana:

> *"Luo, Congolese and Somali arrived attracted by the fish. They came with a business mind and we have turned from fishing for food to fishing for business. We are now making money here."* (Elderly woman, KI, Longech, 18/03/2016)

Economic growth is considered the engine of development along lake shores. "*People started enjoying life and taking fish to the markets. Many people now own boats and nets. People started building iron sheet houses, and many villages are growing.*" (FGD, Longech, 09/02/2017)

*

Village stories added nuance to the narratives I was initially told by the chiefs whom I had met prior to my arrival to the three field sites. As I was trying to put all various pieces of information together, I was further challenged by the heterogeneity of individual and households' narratives I collected through life histories and household interviews.

Below, a word-cloud run by Nvivo.11 is used to represent the frequent themes that people expressed concerning their decisions to move to the villages (Fig.5.1). Following the word-cloud, themes are further elaborated in turn but are inevitably interweaved with each other—multiple reasons, multiple pathways and life occurrences led people's choices.

Figure 5.1 Individual decisions to move to centre



Author's elaboration

I was frequently astonished by the paradox of the idea of pastoralism and nomadism as holding a tradition of perpetual movements and the remarkable counterpoint of a "sense of home" often explained as reason to move to *lolines* or their surroundings (Fig.5.1). *"I moved here because this is my land*" is a common reference made when tracing reasons for moving into Urum and Lorengelup—ostensibly less in Longech where only few households mentioned descending from the area.

> "*This is where the graves of my people can be found.*" (Elderly men, HH, Nangorichoto, 13/11/2015)

The "land" or "home" (as I coded it) argument does not strictly refer to the exact area where the conversation was held, but to the *ere*—the person's home-place, from which people trace their derivation and to which they are attached (Rodgers 2018:106).[99]

A second frequently mentioned reason from families and individuals in all three *lolines* concerns their profiles, specificities, and good resources available. River, palm trees and shrubs for shoats, vast and free space, and the road are frequently mentioned by Lore residents; trees and shades, mountains, grass, and wild fruits draw people histories in Urum; availability of fish as food resource and as commercial asset, and the lake is what attracted many families to Longech. Thus, importantly, the centre itself is a good place—"*otherwise you would not find me here."* (Young woman, HH, Kambi Lore 20/11//2016).

Relatedly, a third frequently cited reason to move to the centre is because of the opportunities some could envision as spanning from life in the village:

> "*We came here because we had heard life was good. We came to chance life. We slowly became familiar to the place and started having friends.*" (Middle-aged woman, HH, Kaikol, 09/02/2017)
>
> "*I realised that business was worth here, I began it, I succeeded to raise money, and made a house for myself.*" (Middle-age man, HH, Longech, 04/04/2016)

Legible in these narratives, there are dreams or "aspirations" (as I coded it) of creating something new, a better life for their children, and to live like "*developed people do in towns"*. The common thread in these narratives is the feeling of being unfitted to pastoral life and the will to learn new things and meeting new people.

Upon these narratives, *lolines* are perceived as "spaces of participation, time, and engagement with change". My host mother in Lorengelup once expressed this feeling eloquently:

[99] Ere is the foundational settlement. Broadly translated into "home-area" (Müller-Dempf 2014), ere is often referred to by Turkana as the "father's land", the "place where one was born" and the "place to always return". The specificity of an ere can vary depending on the context; some refer to a specific stream or watering area as their ere, while others indicate an entire territorial section. Rodgers (2018:104-108) shows how the use of the term ere changed over time displaying a shifting sense of place. It is, for example, increasingly used to indicate new centres developed along roads (like Urum and Lore)—"where people build permanent houses, where there are animals that cannot walk very far, and old people can rest"—and it has been increasingly deployed also to indicate a place that belongs to a person, especially as contentions arise over private property and land rights. Rodgers writes: "To discuss these concerns, people often refer to their ere not as a vague and unbounded place (akwap), but in the more possessive sense of their soil (ng'alup)" (2018:108).

> "*If I may think a little* (about) *what* (I) *would want to have* (meaning: if sometimes I can even think of what I could have)*, it is because of the new changes that have come to us. People nowadays are facing the road and would want to have a house next to the road because normally you can sell goods there*." (FN, 16/01/2016)

Akamaise was explaining the reasons for building their most recent homestead at a walking distance from Lore centre. Compared to a life "*in the bush"*—where "*we cannot get government services*", "*we do not receive help for our animals*", "*we do not receive food*"—*lolines* are instead seen as rich of new things, opportunities, and excitement. New food, new ideas, new activities such as weaving mats or burning charcoal, and making money with new business (shops, selling firewood, basketry). Through these narratives, people have shared with me the feeling of participating in change. In villages they can access services, they can easily go to towns, they can benefit from roads and government or NGO's field visits. As a result, in settlements people never lack tea and sugar to welcome visitors and can always offer them a secure place to spend the night while travelling.

Life in the village is "*not disturbed by migration"*. Rather, there is "*time"*. Resting time is described as one of the advantages to receive government help, reducing anxiety and stabilising families. Away from villages everything becomes difficult. It is difficult to find grass. It is difficult to find water. There is hunger and thirst. Resources seasonally senesce, and this generates stress and hardship. Moving. Moving all the time. Packing up donkeys, walking long distances, changing home every time grass finishes, every time water ends, every time it stops raining, it is tiresome. Looking after every single animal in the stock, defending them from wild animals and making sure they do not get lost, is a source of stress and constant worries.

In addition, away from villages life is dangerous. Dangerous space is a well-known dimension in Turkana (Betti 2010) given the possibility to run into enemies, wild animals and evil spirits (mountains, lake, and water bodies are populated by evil spirits). There are dangers for people and dangers for livestock. Many wells carry buried people's names, people who died when wells collapsed because they were too deep. Also, livestock may fall into wells and be exposed to the danger of being eaten by wild animals. There is the danger of being alone in the bush and being injured when no one is around, or the danger of encountering enemies who may kill you "*without anybody knowing"*. While in *lolines* there is time. Time not to worry, "*time to buy things and start something new."* (Young man, FN, Kambi Lore, 18/11/2016)

What instead I coded as “kin” and “outsiders” (Fig.5.1) reflects a decision process which was encouraged by insiders (kin, relatives and friends whom had already settled) or outsiders (missionaries, NGOs, government), or a combination of both.

“*I am here because my people are closer*”. In the family histories I collected, there are stories of wives, brought by their husbands to new places. Stories of husbands who followed their wives in places where they could feel better. Parents who re-joined their children or children sent to grandparents to help them and then married there. Widows who searched for friends or relatives not to be alone anymore. Youths who heard from their peers a different life was possible. There are entire villages established and expanded by the confluence of the many members of a single extended family: “*So that we all share the little food we get. These days, there is too little to be apart”.* The same male respondent continued: “*We also want our family members to have their names written down and receive food from the government”* (KI, Ngiipae, 15/11/2016).

A mixture of external encouragement and forms of coercion emerge from people’s histories, for which a role is played by government, churches, and NGO’s. “*I chose this place because of the government, so that my people could eat the government; shops to be closer….and Lodwar, we can easily go there from here*”. Some others were literally brought by the government: “*I was brought here in a big car together with many other people and discovered I could eat fish*”. Others found a community of friends and support from the new churches found in *lolines* or their surroundings.

For many, instead, it came a point where they had no other choice and felt enforced to make the decision to move in one of the villages, “*most people came because they had lost everything”*. In these histories, well defined limiting factors are described as influencing decisions to move to *lolines*. It was the lack of rain, the disappearance of grass, no pasture, no water, death of livestock (or donkeys for transportation) that made people settle in one place. “*It is the livestock that has reduced, we need to stay together. How can I divide my 20 goats when I need them all in the same place?*”. Also, increased distances walked to find fresh fodder for the animals, and increased dangers to encounter the enemies are often mentioned: “*Children and old people are safer here, only the youth, the strong and energetic ones can migrate these days.*” (Elderly man, FN, Loreamatet, 5/12/2015)

Individuals or households' life histories add further nuances to the description and growth of *lolines*. From their narratives we can feel the epic give-and-take exacted by their land, physical and social, up to the point of fracture, when beauty and strain clot in a single stain: *loline*. We can trace joint encouragements received to move in centres or their proximity, as well as the lack of any other possible choice, or the desire and ambition to do something new, something different—drawing from what can be seen as "mental nomadism" against the repetitive dullness of everyday life. In addition, further differentiation is added by disaggregating analysis at gender or age level—something which is not reported here for length reasons.[100] These places are, in sum, brought to being and constituted by a multitude of rhythmic constellations of actors and their luggage of motivations, aspirations, and desperations.

The complex web of narratives presented in this section (administration/chiefs, collective, and individuals) would disappear in the adoption of the "single story" of push-pull models. The single-story hides diverse needs, aspirations, and perceptions into one dominant narrative, which rarely accounts for all. People' decisions cannot be reduced to one single factor; rather, many factors interplay, inform, influence, and modify each other. The single story described by push-pull models does not account for people' agency and does not consider constraints and difficulties of their decisions.

It also does not explain why everybody had not settled yet. Wealthy herders often avoid towns. Many people I met stated they did not want to stay in *lolines* nor their proximity, and described these places as holding negative conceptions, not just because of "poverty and destitution" (Broch-Due and Sanders 1999), compared to the prosperity of a pastoral life, but also because these are seen as spaces of "absence" (of livestock, community, and life purposes) and "deviation" (deviation from the path of tradition; deviation of grass that no longer grows; and deviation of relief aid) (cf. Chap.7).

Most importantly, the single story is static. It describes sedentarisation as a single action rather than a process with an uncountable variety of possible outcomes, and hides changes in motivations, aspirations, and opportunities. It mirrors equilibrium thinking (cf. Chap.1),

[100] Broadly: some children are often sent to live in *lolines* because of the presence of a primary school. Young women and men may choose to move to *lolines* for the pursuit of alternative income opportunities, like running shops or motorbike services. Elderly people arrive in search of food aid or a place to rest and have support from neighbours or relatives.

ignoring that settlements, likewise nomadic pathways, evolve, change, and transform through human activity and acquire many layers of contested meanings.

In Urum, Lore, and Longech, the presence of the administrative centre and its infrastructure has not initiated a trend towards sedentarisation; rather, people continue to move and *lolines* become a reflection of many overlapping stories which were brought and mixed together by different people who come and go, and always leave "that which is not there" (cf. opening quote sec.5.2).

Only after repeated visits over many months to the same centres, could I see the "connections" and feel the "pulsations" which characterise these places. The three *lolines* came to be, to my eyes, highly dynamic, surprising, and resourceful; never the same—physically (in terms of housing structures, buildings, pathways, extension, etc.), demographically (density and demographic composition), emotionally (liveliness, quietness, noisiness)—and always under re-construction. There is therefore a difference, as in de Certeau's "panorama city", between the imagined, planned city (by outsiders) and the lived "city" of herders. De Certeau writes that images which *tell* a place are those "down below" with those whose steps *write* the city (de Certeau 1988:93). Hence, I placed myself "down below", listened and observed the trajectories which formed and unformed the localities where I was living—and found an ever-mobile space.

5.2 Mobile *loline*: temporal materiality of variability

Sono arrivati dall'altipiano / Have they arrived from the uplands
uomini e donne con lo sguardo assorto / men and women with rapt eyes
dei seminatori di grano / people of the wheat
ed hanno lasciato quello che non c'era / and have left that which was not there.

GIANMARIA TESTA,
2006.



Woman and shovel, the making of charcoal. Lorengelup/Turkana Central. February 2016.

The first time I arrived to Kambi Lore at the end of October 2015; I described the village in my diary, as copied at the opening of this chapter. I then went to Lore three more times, and every time it looked somehow different.

In December 2015 I returned to the village for the second time and wrote:

> *The village is growing fast. Since my first visit, the water kiosk which looked dusty and crumbling is now working, having been connected to a near-by borehole. There is also one small* hoteli (restaurant) *where now we can buy chapati and eat something at lunch time; another one is under construction, and people are bringing palm leaves and wooden poles to the owner for a small payment or food to bring home. There is also a new big structure made with mud, with no roof yet but corrugated sheets are lying on the ground which I assume will be the future ceiling. People inform me that someone is building a video-saloon where to show movies for 50 shilling a show.*
>
> *There is an unexpected and contagious ferment. People seem very busy; it is difficult to find them in their homesteads for interviews. People believe that in a few years they will all have water in their homesteads and houses will turn from being built with palm leaves into mud and iron sheet. Kids play loudly every night, and I can hear music coming from one of the shops where youths have gathered. During the day people are busy in several activities: some bring their small herds to the river, others prepare sacks of charcoal to replace those sold along the road, motorbikes go and come bringing eggs, which we could not find two months ago, and beers from the bigger centres* […]

A rather different description from my third visit in February 2016:

> […] *I recognised Lore, but this time it was different. Not even sand flies. We stayed in the sub-chief homestead. She is not here. It seems she has not been here for a long time. I remember her* boma *(homestead) being always full of people sitting in the shade of the* mwarobaini *tree (neem tree). Now it is only us. Part of the fence has fallen, spider webs in the hut, and silence instead of music, at night. Stagnation. The small business activities started last year have closed or failed. Only one* hoteli *now opens, when money from cash-transfer programmes is distributed. Shops have closed or have empty shelves. The water tank feeding into the kiosk has broken and spilling water everywhere. One extra water tank was brought by a politician who passed by and saw*

they had no water; the tank is now lying down on the ground, empty. It seems to me there are many more fences around the houses; the number of charcoal sacks along the road waiting to be sold is impressive; but fewer people are around.

This situation once again reversed by the time I went back, for the fourth time in November 2016, a year after my first visit. During this time, Lore was anything but still. The failure of contemporary scholarship and policy making to describe the novelty of these processes, and to imagine places as fixed or sedentary, lies in the lack of understanding of what Mbembe and Nuttal (2004) called "the creativity of practice": the compositional acts that give life to places.

The numerous changes and dynamism which emerge from the extracts reported above, renders settlements highly mobile. This movement is made visible by its embodiment in the (1) body of villagers who move along chains of relations and by moving create and connect places; and in the (2) body of villages themselves, their infrastructure and shape, which throb at the rhythm of pulsating phases: plenty/scarcity, control/dependency, conflict/peace, subsistence production/market production.

Connections: matrices of movements

The vehicles stuck in the river create sudden ferment in the village. A few people run to help, while a group of "town people" get off. Mostly youths, and an older couple. They have come to Urum for their asapan (initiation ceremony). *The older couple is the current county minister of health with his wife. One of the young guys is their son. The youths are spending a few days with their "bond family" in Urum, before the ceremony can begin. Afterwards, they will return to Lodwar. We think we have found a way back—and also a rare opportunity for me, outsider, white, and female, to assist in an initiation ceremony.*

Following Ingold (2011), every inhabitant lays a trail while proceeding along their paths. Just as spiders, human beings weave a web of relations, rendering space possible, habitable, and walkable.

Loporucho, an elder in Ngiipae, envisions his future while talking to me: "*My new-borns will go to school in town where some relatives can take care of them. One day we will all meet in my home; people will come from far away, those with the animals will come and*

bring some for us to eat together, those from town will also come and bring sodas, and my new-borns will return from their jobs in the foreign land. I will be very proud of my family that day" (FN, 13/11/2016).

Loporucho is threading a "web of connections" weaved from all the "lines" his family members and kin are tracing. Each one, in their moving across the landscape, defines points and locations that move with them along their journey. Their intertwined paths are giving shape to places webbed into a vast net of relations. Where inhabitants meet, trails are entwined, and their lives bind to each other. Every intertwining is a "knot" (Ingold 2011). The more lifelines are intertwined the larger the knot. Urum, Lore, and Longech are like Ingold's knots, implicated within complex networks, and they move within these networks (Haldrup 2011). Relations, like trails, connect places/knots as they spread, creating more and more tangible locales/knots along the web. This has two main implications for dryland centres.

First, it means, as I realised after several visits to the three *lolines*, that most people are related to each other. Close relatives, extended families, family friends, adopted relatives, borrowed children, friends, friends of friends—tight, loose, far connections could be established for each villager I met within the centre and its surroundings and beyond them, beyond location borders up to mountains, lake shores, North Turkana, West Turkana, South Turkana, Kitale, Moite/Loiyangalani/Marsabit on the other side of the lake, down-country or *Kenya*[101].

Thus, the second implication is that sedentarisation does not result in a sharp break among pastoral, fishing, and urban communities (Fratkin and Roth 2005), and does not recluse mobility in the social relations. Former pastoralists living in towns often own livestock in rural areas herded by friends, relatives or hired workers, or have split family members accordingly. Town dwellers travel to rural areas for age-set rituals and various ceremonies which involve their families or bond-families, as I could assist in Urum. Herders have relatives in towns and small centres whom they can visit when they need money to pay "debt-food"[102] in local shops, or to whom they can send their children during school periods. Town relatives inform their rural affines when cash is distributed through cash-transfer programmes or host them during market days or when they have gone to town to sell various products.

[101] Southern regions in Kenya are often called down-country and a few would still call it "Kenya", as if Turkana does not belong to Kenya.
[102] A common practice of borrowing food from shops and delayed cash or in-kind payment.

People operate within social networks that link villages, towns, plains, mountains, lake shores, and do not perceive their geographical space as made of district poles (de Bruijn, Dijk, and Foeken 2001:5)—rather the networks they create allow for continuous movement between various places/knots, making mobility part of places' being. In this, I reiterate Ingold's question (2007): how there could even be places if people did not come and go? For it would be quite wrong to suppose villagers are confined within a particular place or that their experiences are circumscribed by a restricted horizon in a single place. Their mobility is the first foundational act, a primary condition for the social formation of settlements.

This means not only that villages are created through movement, but also that movement gives life to villages, being in turn always under construction. There is not a single image, a single snapshot that I can provide of the visited *lolines* because the villagers I met and spent time with, several times or never encountered again, had the capacity to continually produce something new, singular and unthought—"which cannot always be accommodated within established conceptual systems and language" (Mbembe and Nuttal 2004) such as that of dichotomies like nomadism/sedentism. This leads me to my second point: village "pulsations".

Pulsations: the making and unmaking of centres

> *The preparation for* asapan *goes on for a few days. One evening, on our way back to our new host, we encounter many women (more than those who actually live in Urum or that we met in these days) walking fast to the centre of the village with empty jerrycans. We follow them and try to understand what is happening. A big truck which we did not see or hear arriving is parked outside the chief's homestead. Two man are confronting the many women who gathered around. They all seem aggressive. Voices are loud. Jerrycans are lifted up and shown to the men. One of the women explains that the men are sent to start a new maternity centre next to the dispensary. "We are demanding they use and pay our water for the construction materials, 50* shilling *per jerrycan".*

Understanding sedentarisation as the material form of dwelling and settling (cf. introduction, this chapter), when villagers move, villages do too. Along webs of relations, networks enrol and integrate into existing relationships in a specific place. People build, call

friends and relatives; villages *pulsate*. Villagers, in de Certau's words (1988), "spatialise"—create discreteness. The alignment of heterogeneous resources within networks that share the same locales leads to the fabrication of contemporaneous various spaces (Massey 2005), at the rhythm of different kinds of "pulsation", including: humanitarian aid, markets, conflicts, and resources availability—part of a "programmed destruction strategy": at times of crisis/opportunities they gather, while during quiet periods human settlements spread and vanish (Retaillé 2013).

I define "pulsations" as the "actualisation of various possibilities", or the "materiality of variability"—its very flesh. The *lolines* where I lived have undergone tremendous transformations throughout my fieldwork. I transcribe below some quotes from conversations held in the three *lolines* about the nature and character of the inhabited centre—why do people stay here? How long do they stay? Do they travel, in and out—if so, why? And when? What happens to the village when people arrive? And when they leave? Do they come back? What do they bring with them? What do they leave behind? These are some of the questions asked.

I have organised their responses according to different "pulses" (i.e. codes) which shape people's and places' movement—in and out. The definition of "pulses" is my own reconstructions and do not correspond to the language used by my respondents. Also, what follows is not an exhaustive list of all "pulses" nor should each category be taken separately from the others because they overlap and influence each other. Hence, the table should not be read like push-pull models. First, "pulsations" are not unidirectional (only moving in), but multi-directional (including: in, and out, and several other layering of those motions). Second, "pulses" are heterogenous and not single-factored. Third, they are dynamic. The table below calls upon the reader to imagine a pulsating heart which injects blood into the system—and the system moves or otherwise it *clots*.

Table 5.1 Village pulses

Plenty/scarcity	**Conflict/peace**
"There are fewer animals and more people tend to stay together. However, when drought is too much young men move to *abor* with livestock and will return when grass grows." (middle-aged men, LQ, Nakudet, 14/12/2016) "Now we are many because of the fish; when the lake reduces people will go away." (middle-aged woman, HH, Longech, 03/04/2016) "When it rains, new people come to benefit from the grass." (elderly woman, HH, Lorengelup, 27/11/2016)	"There were rumours of war from Ng'ijie and tension was high among the locals, they feared their life and there was no telephone communication that they could reach in case of an attack; that is why many people have left." (middle-aged men, KI, Urum, 07/02/2016) "Here, we are the mercy of the Merille; we would go back when we hear there is peace." (elderly woman, KI, Soweto, 16/03/2016)
Dependence/control	**Market/subsistence**
"Earlier it was good because the water pump was working, but since it stopped working not many people now come to our shop, most have left." (middle-aged woman, HH, Nangorichoto, 19/11/2015) "There were many more people living here to receive food aid; unlike now, since NGOs have disappeared, with fewer people." (elderly-aged woman, HH, Kachaikol, 23/12/2016) "The population had gone up. This place was green and had water, many people moved here. Now there is no water and people moved to Kobebe where they heard there is a dam." (middle-aged man, FN, Urum, 02/02/2016)	"After the shop went empty because too much debt food, people started leaving." (middle-aged woman, HH, Namel, 19/03/2016) "When institutions were coming here to buy our charcoal for schools in down-country, this area was full of sacks and many people were living nearby." (young man, HH, Akwamekwi, 19/03/2016) "There is not a fixed market here; but markets nowadays have wheels and we can sell along the roads. When the road dies, we will go." (middle-aged woman, FN, Lore, 16/11/2015)

"*People in this village are like seasons*" is what an elder from Longech once told me. People gather when they have heard there is plenty of resources available around centres including grass, fish, and rain—village expands—and leave when there is scarcity of those resources—village contracts—[plenty/scarcity pulsation]; people gather when there is conflict in the

search of a safe place—village expands—and leave when peace has restored—village contracts—[peace/conflict pulsation]; people gather when word has spread about food distributions or construction of water facilities or enrolments in cash-programmes—village expands—and leave when these are completed or have moved somewhere else—village contracts—[control/dependence pulsation]; people gather when they hear they can earn money by selling charcoal, liquor and brew, livestock, or basketry along roads—village expands—and leave when roads are no longer trafficked or have been diverted—village contracts—[subsistence/market pulsation].

These pulsations are the *materialities* of variability—like body deformations of a living organism. Different sounds, objects, buildings and facilities were created and destroyed throughout all my visits in the three centres. Silence; or deep and vibrating music from drums during night church ceremonies increased as drought was striking, and people were moving closer to the centres hoping relief food would be distributed soon; and meanwhile prayed that God would help. The sound of vibrant children's laughs and screams while playing at night when stomachs are full. Loud pop music played from cell-phones from youths who have gathered when shops were running and had full shelves with beers and sodas. The sound of beans poured in a pot. Mechanic drilling. Huts up. Fences down. Plastic bags flying. New churches; new constructions; new dispensary room; abandoned homesteads and kraals. New water pumps, broken ones; piles of charcoal sacks.

By materiality I mean "the tangible stuff" (Ingold 2011:20)—of their production, destruction, degradation, erosion, corrosion, wear—which come to being by sawing palm leaves, threading strings from relief bags, burning wood, digging sand, building huts, carving corrugated-iron, knapping stones—by bringing things to life and death. Herders respond to complex forms of variability when for example there suddenly is food aid or someone brings a water tank, or bushes start being cleared and roads being constructed, or boreholes drilled, schools built, churches and dispensaries are set up. For Turkana herders, such occurrences are uncertain and unpredictable. Not only rain and pasture are variable—everything is.

With humanitarian assistance which disappears with the first rains, or falls from the sky[103], the similitude with rain is easy to grasp. Like seasons, aid is factored in the understanding of space,

[103] The Royal Air Force used to drop food from the sky in the '60s (Reidy 2012).

and it is discussed, shared, searched for. Scouting for aid entails the movement of parts of households towards distribution points and the subsequent creation of places for as long as food is distributed and seen as a source of opportunity. Phenomena of "densification" (villages expansion together with the number of people and huts, general noise and liveliness), are mixed with phenomena of "fluidisation": when food stops arriving and villages contract, houses are abandoned, fewer people remain around, silence and dust. Similarly, when there are election campaigns, candidates drive through rural areas and hold meetings and assemblies. And then they leave, having distributed cash, brought water tanks, promised irrigation schemes and school development. Rumours spread. Village throbs and densification starts. And, after a period of time, water tanks roll over ground; empty. With no international oversight on funding, or coordination of interventions, facilities (like boreholes, cattle dip stations, trade centres, schools, fishing industry along the lake shores) fall in despair and become the symbol of unpredictability of aid (Rodgers 2018:114) to which Turkana herders have learnt to respond by making and unmaking their lived space.

Aid, like rain, is a metaphor for forms of social, economic, and political variabilities in the landscape and shapes people's accounts of space, contributes to their decision-making and creation of the world. Variability is thus material, and its materialisation is apparent in "village pulsations". Contours of villages are movable, as if villages themselves are breathing. Villages are not just a stop but also a crossing point, a junction which grows, shrinks and shifts; a discrete "permanency" (Harvey 1996)—a temporary arrangement of cohabitation that may break when the season changes and people migrate—where space contracts when time dilates in vain.

By leaving, people are replaced by ants which take over the places created during peaks of the pulsating bits; when people will gather again, they will start afresh, and the centre takes a new body-shape; it moves.

> "*When it rains somewhere, people will go there. Ants will eat away all our things and houses; when we will return, we will have to start afresh…this that you can see now* (pointing around) *will no longer look like this and will be eaten away.*" (Elderly woman, HH, Loreamatet, 26/11/2016)

The abandoned hut is called *awi a ng'orot*, which translates as "home of long ago." Long ago can also mean the previous season, when an entire family moved and built a new hut in a different location. It is possible to see many *awi a ng'orot* while wayfaring through Turkana.

The same happens when someone dies. My host family in Lorengelup grieved the death of the *mzee's* mother. She lived her last months enclosed in her own hut—with a glass of water and one of milk, if available, brought to her every day—too old to even stand; the family feared she would injure herself by crawling on the ground if she was let out. Her mourning was chanting our nights. Upon my return, after several months, she had died and her hut turned into a gigantic grave, a collapsed dome which once used to be her home. A dead hut.

Figure 5.2 Dying hut



The abandoned hut however is not a dead hut—as its appearance may initially evoke. At a closer look, the same material with which the hut was built, would drop off and take root, creating a new growth of living material, either sisal in Urum or small trees in Lorengelup and Longech. Houses become alive after they are abandoned[104]. Huts, villages, paths, shops, churches, schools they are thus all living organisms (Blier 1987, cited in Ingold 2000). For the timespan that the influence of human presence prevails they look like buildings, but slowly less so as non-humans advance but building remains a process which continually goes on, with no final form (Ingold 2011). And settlements are never really settled.

In the process of construction and destruction of *lolines* a new model of space use emerges associated with new forms of mobility and the rise of complementary economies, which I show below.

[104] Thanks to Dr. Cory Rodgers for this insight.

5.3 Clearing bushes

All good things follow the roads.

Young male herder

Akudet, 15/11/2016



Piling charcoal along the road. Kambi Lore/Turkana Central. November 2015.

Morning. The truck is no longer here, I do not know if the women were successful in their negotiations. A few men have camped next to the health centre to begin working on the new facility. As we greet them, we learn this is a county government funded programme for the extension of social services to rural areas. Meanwhile, asapan *has started. I am welcomed to attend even though no woman is generally allowed. Of the 11 initiates, 6 are from Lodwar—easy to recognise them because they are the only ones who have kept pants on. After having roasted 11 goats,* agatha *(prayer) begins. For the occasion, many of the elders we met along our journey in the surrounding mountains have gathered and are now chanting on the state of their land and their animals.*

The ceremony lasts the entire day. Exhausted in the evening, and with no food because all goats were shared among initiates and elders, we return home. One of the men from the dispensary comes to inform us the lorry should be back tomorrow to bring more materials and we could return to Lodwar with them. The aspan *should also be finishing the following day, and we were told cars will be sent to pick some of the initiates. After an extra week in Urum, we finally think we will soon return home.*

Because of the proliferation of small villages in rural areas of Turkana there is a growing sentiment that the Turkana are changing from nomadic to semi-nomadic or semi-sedentary lifeways. It is widely acknowledged that even though pastoralism still today counts as the dominant livelihood (60%) this is a marginalised majority or one bounded to an end. These accounts treat traditional pastoralism as a static or unchangeable livelihood system only supposed to roam around with livestock. Conversely, the creation of *lolines* is the expression of people's capacity to incorporate elements of change in society (i.e. various forms of social, economic, and political variabilities, such as the sudden food distribution or construction of the maternity centre in Urum), through the making and unmaking of their lived space. As Chatty has shown for the case of the Bedouins in Oman who started using trucks to transport livestock through vast desert lands, "their adaptation ought not to be regarded as evidence of system decline" (Chatty 2013:139). Similarly, the creation of *lolines* shows a system which is continuously changing in response to variations in environmental, socio-economic, and political conditions, always adapting to new factors, always "potentially modernising" (Chatty

2013:139). The capacity to incorporate elements of change is part of the story of resilience I learnt with Turkana herders, an entanglement with the nomadism of space.

Lolines, as expression of space making, represent the fluidity of both space—through the making and unmaking of their inhabitants—and livelihoods—through a similar process of enskillment seen in Chap.4 to master the lived environment, geared towards the creation of complementary economies centred around cash and aid. Risks occur if complementarity breaks down, and a parallel economy inside *lolines* separates from the pastoral economy (and all other economies), clotting space-time. In this section I present the process of creation of complementary economies and conclude with its coupled impact of rising expectations and frustrations when these remain unmet.

"Resourceful-dumps" and complementary economies

The creation of *lolines* has brought up an extended model of space use which include pasturelands, mountains, rivers, lowlands, and also roads, markets, towns. To make use of all these spaces, the household necessarily splits. In other words, space extension entails social fragmentation and household re-organisation, including household splitting and new types of mobility.

In *lolines*, it is difficult to see livestock. Elders and women with young children settle in the newly formed villages while livestock is mainly kept faraway. In *lolines* there are only a few shoats, weak or lactating ones, because "*it is not possible to live a life with no animals*" and because they may "*not be strong enough to move long distances over rough terrains*". Most livestock are taken away by young male youths, "*the strong and energetic ones"* and their wives (if they have no children yet) who move in search of better pasture using temporary satellite camps (*abor*). The households (*awi*), the principal production unit among Turkana pastoralists (Dyson-Hudson and Dyson-Hudson 1999), splits, like a drop of mercury[105]. The single cells of the household will group together only when certain favourable conditions occur in one single place (connections and pulsations).

[105] Thanks to Alberto Salza for this insight.

New villages, new opportunities, and new food gave the possibility to families to separate, thus making simultaneous or prolonged use of the multiple coexisting spaces, while earlier the whole family had to stay together. As explained by my host mother in Lorengelup:

> "*Today one burns charcoal and takes it to the road. When drought comes, the animals migrate, and we remain behind like now. Before, when it was livestock alone to keep us alive and the world was still good, we used to migrate fully* (the whole household)." (FN, 18/01/2016)

Since the household splits, struggles are equally faced among members of distant mobile household units. Splitting implies a separation from wealth which today has the shape of a bull but also a TV, a metal foil, or a maizemeal every night. Life becomes equally hard, for those who migrate and for those who stay behind.

> "*Here in the village there is* akoro (hunger)*. Animals are kept far, and we do not get enough animal products to sustain a decent life. Only those who still migrate get good food and can enjoy life.*" (Elderly men, FN, Urum, 02/02/2016)

> *"People who migrate nowadays face a lot of struggles; there is not food for them, no fat, they eat only* engol *(palm fruit)."* (Young woman, HH, Kaikol, 17/11/2016)

In the face of these struggles, families provide reciprocal support. People who stay behind, those who remain in *lolines*, send someone to visit those who migrate, and vice versa, to inform each other on herd condition, state of animals and destination of migration. Those who stay behind bring a bag of beans and maize to those who migrate when they bought or received food from the government; alternatively, those who migrate pass through *lolines* to buy food when they finish their stock with money lent by their relatives in towns, or go to collect their cash transfers from HSNP. Those who migrate also bring an animal when they hear that people in villages are struggling for food.

Spatial and family reorganisation define a "Quick-Silver Pastoralism Model"[106]–made of fluid human and animal groups; it is characterised by continuous fusion and fission phenomena. Households are organised in mobile units defined by movement, autonomy, and

[106] Thanks to Alberto Salza for these shared reflections.

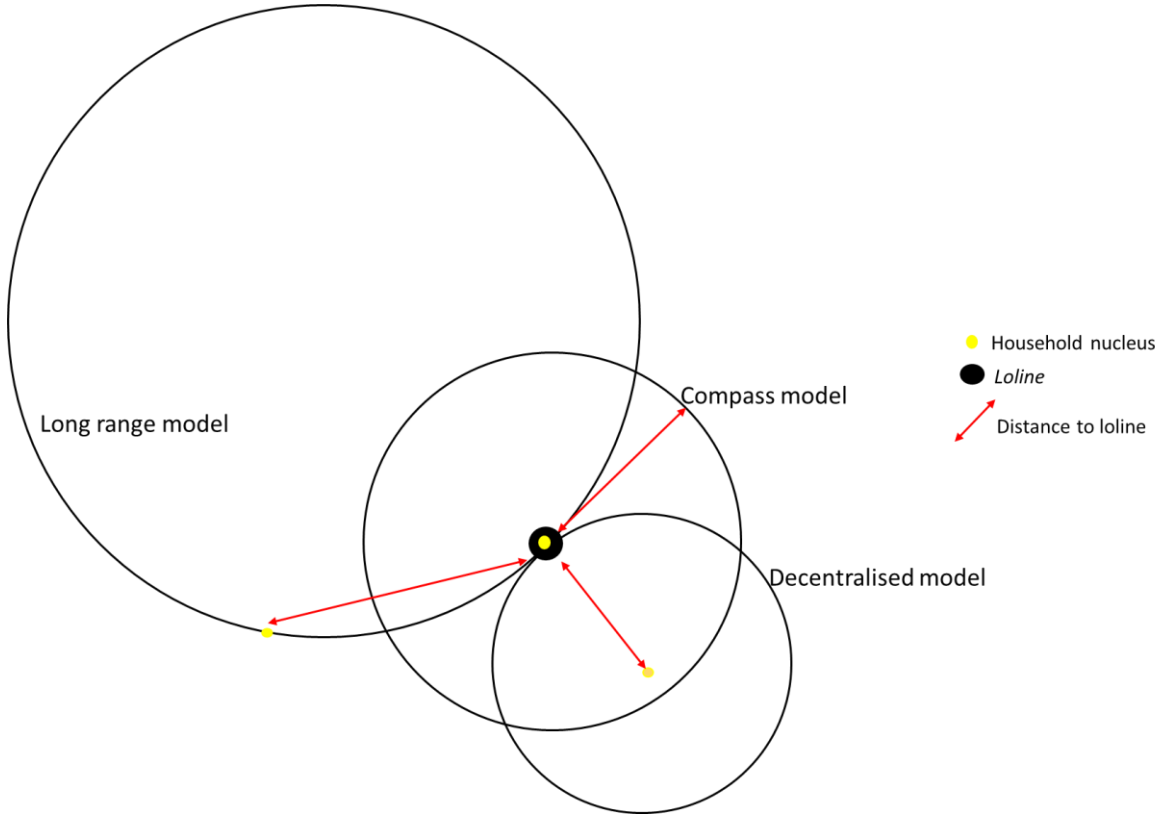
flexibility in order to provide quick responses to rapid external changes which occur in space—environmental, social, economic, and political variations.

Rather than the end of pastoralism, this shows its constant evolution, the re-organisation of a livelihood in order to access both cash-based opportunities and the livestock-focussed resources of the pasturelands (Rodgers 2018:112). This occurs differently from case to case and different patterns can be identified responding to the logic of the Quick-Silver Pastoralism Model. The array of possibilities is large and occurs unevenly across groups; from the families I have lived with I define three basic "models", which may appear in combination (cf. Fig.5.3):

- Compass model: one nucleus at the heart of the village and parts of the family split moving along a circumnavigation radius at a reduced distance from the village.
- Decentralised model: one nucleus family moved from the village but remaining within a short distance from it while other parts of the family move around the decentralised centre at a reduced distance from it.
- Long range model: regardless of the distance from the nucleus of the family to the village, the other family units split in as many cells as the number of species owned and size of herd, and travel long distance away from their centre.

Though there are various ways in which households split, *lolines* remain commonly used as places where to buy goods, collect food-aid, seek health services, pay visits during the day to meet friends, or gather news and be updated about things happening around—information being an additional resource to utilise in a multi-resource economy (Chatty 1996; Hobbs 1989). They are mainly used as "resourceful dumps", where to put people considered unable to perform pastoral activities (elders and young children). I came to understand these places as "old age homes", for elders to rest and intercept, capture, and share forms of social, economic and political variability, and "children training grounds", while helping grandparents with house chores and other errands, attending government school, and learning how to herd from the few animals left behind before they take full responsibility of the herd and start their migrations in one of the various family nucleuses. In other words, they are going through a process of enskillment of both pastoral skills and new activities brought by "outsiders".

Figure 5.3 Quick Silver Pastoralism Model



Author's elaboration

In *lolines* people learn "*the ways of the government*", as Akamaise—my host in Lorengelup—once told me. Event calendars gathered during FGDs in the three centres also highlight a process of enskillment parallel to the creation of the villages. For example, people in Lore told me:

> *"Most people did not know how to make mats and baskets or how to burn charcoal when there were not roads and* lolines*. We started learning these new things since more cars pass through here* […]" (FGD, Lore, 13/11/2015)

By "*learning the ways of the government"* and engaging in farming, wage-labour, entrepreneurial activities, market opportunities (charcoal, liquor, basketry, livestock), or aid-watching:

> "*Before the government arrived, people were migrating away from the drought; now we run into it."* (Elderly Woman, Lorengelup, HH, 18/11/2015)

People are bridging the cash-based economy of towns with the livestock-based economy of pasturelands to quickly respond to various forms of variabilities—creating a complementary, "hybrid", economy. Müller-Dempf has introduced the idea of a "hybrid economy" in Turkana, where "the pastoral and non-pastoral sectors become more and more linked, and people in both sectors are increasingly cooperating" (2014:14). As a result, urban markets became part of the pastoral landscape, and food purchased from livestock sales became part of the livelihood strategy. Women have also pursued new avenues to earn an income, including the collection and sale of wild resources, firewood, and charcoal; weaving palm leaves to make mats/brooms/basketry; or they are opening shops to sell various products including maize and beans, tobacco, drinks, beads and modern utensils (plastic plates and cutlery, mobile phones, torches). Overall, by means of enskillment and space making in response to complex forms of variabilities, there emerge further diversification and specialisation of the pastoral economy entailing the co-existence of different modes of production. As noted by Fratkin and Roth, sedentarisation does not imply one type of lifestyle or economic activity, but includes a range of economic choices (Fratkin and Roth 2005:10).

It is important to highlight, however, that the growth of an complementary economy does not necessarily lead to a uniform process of general enskillment; rather, this occurs unevenly according to idiosyncratic possibilities and other contingent factors with the risk of creating new forms of inequalities and stratification (Rodgers 2018), and sense of exclusion.

> "[…] *The person who has not gone to school, the survivors of the new changes of life* (those who are keeping a pastoral way of living), *nothing can suit them. Nowadays people survive with casual labour, and those who are not learned* (those who did not go to school) *grow thin*," Akamaise fears.

Indeed, as *lolines* grow and enskillment rises, expectations do too—which can drive further space-making, but can also transform into frustrations and fears, when these remain unmet.

Expectations from *mandeleo*

> *The following morning no car arrives. The workers at the dispensary insist it would be there any minute. Our luggage is ready and standing next to the road. Nothing for hours. Also from the initiates there seemingly is no*

movement of preparation for the move. Our tiredness transforms into frustration, for missed promises.

*

Extension of space by the making and unmaking of *lolines* create new expectations and ideas about *mandeleo* (development), shaped upon urban lifestyles. Chiefs and development agencies/NGOs working in rural Turkana contribute to the spreading of these imaginaries. As confirmed by Rodgers, many see in the growth of *lolines* the opportunity "to open the minds of people to the possibilities of business as an alternative to pastoralism" (2018:98). As explained to me by the chief in Urum:

> "*I intend to raise the number of associations in Urum to show people still moving around with livestock that there is an alternative. They have other ways to make a living, like they have fertile soil, which they can utilize for farming. They also have forests which they could use for bee-keeping and harvest honey. Or they can collect stones and sell them. There are so many other alternatives they can explore in this area, like mining gold.*" (KI, Urum, 06/02/2016)

Indeed, from *lolines* and their surroundings many have shared a vision of growth which takes Lodwar as the model of urban evolution.

> "*With the school and development there will be changes. Urum will grow like Lodwar*." (Middle-aged man, HH, Koomyo, 28/12/2016)

> *"There will be more people and the road will be tarmac and development in general, like houses with corrugated-iron. Many more people will go to school and those who are in school now will have finished and will bring development back here."* (Young woman, HH, Nangorichoto, 27/11/2016)

People envision a future where the number of inhabitants will increase, "*even more"*; the number of constructions and permanent structures (corrugated-sheets and mud houses—"*one day even cemented ones!"*—restaurants and lodges, schools, medical facilities) will also increase; more shops, more jobs, more business; there will be big market areas and trading centres; roads will be tarmacked; there will be lights; and water in all houses. These expectations drive further creation of place, clearing bushes with one's own hands and

shovelling roads which are seen as paving the way for development in many parts of rural Turkana.

Expectations also shape aspirations of younger generations. One day, with my host family in Lorengelup I was trying to understand how they choose to send Itiiri, one of their daughters, to school and not another one:

> "*Akamaise: It was the same Itiiri who has always said to her dad 'put me to school; dad if you put me to school, I will buy the motor car'"*
>
> *Itiiri: I will drive it in this place that is your home and stop at that acacia tree* (pointing). *I will bring sugar, rice, beans, and tea leaves and give this all to you, who are my father.*" (19/01/2016)

Problems rise when expectations of return from school investments remain unmet—as another family explained to me:

> "*The* mzee (household head) *sent his kids to school with the expectation to be helped once they will get a job. I want my kids to know that we used our livestock for their education and that there is no more livestock left; we are old now and do not have strength to look for food; we want our camels to be returned.*" (Elderly women, HH, Loreamatet, 26/11/2016).[107]

There is a thin threshold which transforms expectations into disappointments, sense of abandonment, and resentment—a threshold beyond which fluidisation and densification phenomena described above, tend instead to clotting.

> "W*e have been forgotten. We ourselves have to struggle. Rains do not come any more. We cannot farm and we are forced to sell our animals to buy the food of the enemy*[108]." (Middle-aged woman, HH, Ngichwae, 10/12/2015)

In many of these centres there are understaffed schools, inadequately stocked dispensaries, several inoperable water pumps. Much of this infrastructure can provide a material basis for expectations of transformation and integration—but often fall in despair like "derelicts of

[107] Problems related to returns from investments in the education of children were so often shared with me to potentially support the argument that education is a form of "poverty trap" rather than a way to exit poverty and uplift living standards—an assumption I would like to explore further.
[108] On the enemy food cf. Chap.7.

development" and can create contestations and anger. In Urum, for example, prior our journey along the surrounding hills and mountains, we assisted to *baraza* (village meeting) called by the chief. It served to write people's names down ("pen") for enrolment in a newly sponsored programme for social entrepreneurial local activities. Soon after the *baraza* begun, Ewal, a renowned elder of the area, stood up and with vehemence said (addressed to the local chief):

> "*They* [outsiders, people from town] *call us reserve, drunkards, but they are not giving us any direction. I once went to Nairobi and found that there were tractors cultivating farms for the people living there: why then aren't they cultivating our farms here as well? Why don't they request a tractor for us to come and irrigate our farms? Where is the person who demarcated Nakuru, and made it the source of maize that you now scramble for* [during distribution of relief food]*? Where is the person who planned a village and it became a true habitat* [grew into a town]*?*
>
> *When we see a tractor here* [when tractors are brought to this place], *it comes to create valleys that destroy land*[109]*. You are busy enlarging your farms* [private plots; meaning that the chief is preoccupied only for his own wealth]*, what has happened with you? Come sunrise and Akuapua remains Akuapua, nothing has changed; comes nightfall and Urum remains Urum. We are not expanding in advancement* [we are not seeing any lasting development]. *What has brought congestion to our land, and where have you been* [what are you doing for us who you should represent]*?*
>
> *It is being said that there will come a pen* [we are told people are coming to write our names down[110]] *from Kakuma, and that pen will develop this place. I have come here in front of chiefs because I want you to see where I belong. I voted for councillors* [Members of County Assembly] *who are blind, who are without eyes; and chiefs, who are blind, who are without eyes; and members for parliament who are blind, who are without eyes. They all are blind.*

[109] Referring to the flat area in between the village and the dispensary which during colonial time was used for small aircraft landing, and now it is an unused area, where crops do not grow, and the drilled borehole is dry most of the time.

[110] Expression used to indicate enrolment into a development or government scheme.

I say they are blind because which of these old women here have you assisted? I recently went to Lodwar and I found old women being beneficiaries of old age support; which of these old women are beneficiaries here? You! The maize that is meant to be fairly distributed, it is what you instead want us to beg for[111]*, and you are even saying to do us a favour!!!*

But let me tell you that we are not blind. I thought that a nominated chief was supposed to call all these men and women under a tree and ask them to share their problems with him. And then you [chief] *would go and forward our needs ahead to the relevant authorities. But instead what are you doing? Nowadays you make deliberations at your doorsteps. How will you understand our needs, the problems we have at home? Is it not the responsibility of the chiefs to bring the people together and deliberate with them?*

These are the problems of Lokuapua**,** *these for* Namoru-areng'an *and these for* Urum*. Just leave us that way, ignore us! You may write with pen on a piece of paper, but we write curses with our hearts.*

Someone once upon a time said [local proverb]*: "take care of the thorns, be careful of the thorns, this side you have thorns, and that side you have thorns, there are thorns all around you, thorns are in front of you, and thorns are behind you". I thought, if here and there we are all surrounded with thorns, why should we tire our mouths speaking,* ng'imoru *and* ng'irithai [generational clan division]*—why should we tire our mouths, what are we saying? What are you saying? These are the same words of all the time* (we are repeating these issues time and again)*, go and we shall perish with you.*

[111] Maize is the most common form of food distributed in Turkana. I assisted several food distributions during my fieldwork and could observe how unevenly these occur from place to place. Sometimes there are people in charge of the distribution, other times this is delegated to local elders, other times chiefs are in charge. The process of distribution itself is normally very confusing with ration arbitrarily varying and people fighting among each other to have more or running away to empty the sack to go back and pretend to have not been given anything. Also, most of the times, food distributions happen unexpectedly with rumours spreading in the area a little in advance and people marching towards the expected food distribution point with uncertainty. When food distribution is not universal (i.e. covering all households in a given area), selective targeting is planned but often not understood from local households who complain to be left out. A final typical comment is that food which finally arrives to the distribution points has been reduced through its own journey from Lodwar being "eaten" by authorities and elites along the way.

Who will redeem us? Who is going to advocate for us, who will stand amidst us and defend us? [….]"

I have reported this extract at length because it does justice, better than thousands of my own words, to the sense of frustration felt among some elders in the peripheries of Urum. Ewal is addressing issues about the past and the future: lack of support, aid, and development; bureaucracy of the government and development-machine; corruption; loss of tradition. In his speech he discussed issues of old-age cash transfers, and problems with the school system which leaves children alone after early care with no primary and secondary school available to let their knowledge grow. It addresses problems of aid targeting. It compares "pens", symbols of development, with "thorns"—but pens often do not reach everyone as chiefs, members of parliament, governors, all are blind and greedy taking most benefits for themselves and the future seems never coming to transform the village in a "*true habitat*".

Nonetheless, while waiting for the future to come, people do not stay still. Villages throb, as shown in sec.5.2—and people observe, learn, and replicate what is happening around them:

> "*There are farms along the river now, but we have to fight with* Prosopis[112]*. We dug canals ourselves to plant tomatoes, spinach, sorghum, maize. We started digging when the government taught people in Nadoto and we copied from them. In Nadoto they went to dig with machines, here we just copied them and did it ourselves with our own tools*." (Middle-aged woman, FN, Loreamatet, 20/11/2016).

In response to a combination of complex variabilities, expectations and frustrations, people pick up their tools and clear bushes to cut roads through their landscape to allow development to come—and villages spring, as flowers, along new trajectories—but, as flowers, they wither and die too.

[112] *Prosopis juliflora*, introduced in Turkana in the late 1980s, is an acacia-like tall bush, imported to East Africa from America (mesquite) by development agencies for re-forestation purposes. Now it became an infesting plant, dangerous even to livestock because of its unpalatability and infectious thorns; its encroachment blocks mobility, and Kenyan authorities are launching eradication programs or alternative uses (charcoal).

Discussion: resilience and unsettled spaces

There has been a growing recognition that ecology can provide only partial answers (Dyson-Hudson and Dyson-Hudson 1980). Pastoral societies are increasingly part of complex interacting systems, showing that ecology itself is not enough to explain pastoral societies, nor their environments. Indeed, the variability of drylands is not only confined to its socio-ecological components, but also social, economic and political variables follow the same logic of uncertainty to the eyes of herders. It is therefore the entire lifeworld of Turkana herders which is awake and in continuous movement.

This chapter opened by arguing against the "single story" of push-pull models, a narrative which simplifies the complex and highly heterogeneous phenomenon of settlement creation in drylands. *Lolines* are created through manifold stories, a stage of intertwined trajectories at the interplay of several factors simultaneously operating. These trajectories are a thread of histories which overall depict sedentarisation as a multivocal, complex, and dynamic process. Furthermore, once created, such settlements acquire a distinctive dynamism which contests the view of a linear development pathway, which is instead subject to the "creativity of practice" of the people of the desert.

Lolines are places of movement, construction, destruction and reconstruction. Relationally, dryland centres move together with the movement of villagers. The creation of settlements does not result in a sharp break from different lifestyles than village dwellers', but rather the village itself lives through nets of relations and connections, as a spider web which renders space habitable and walkable: people walk in and out of *lolines* by means of connections. Physically, dryland centres are never the same by contours, extension, and liveliness. Villages pulsate through the movement of people who transform spaces into lived places according to their imaginaries, as Olwig writes "it is time we recognise that human beings, as creatures of history, consciously or unconsciously, create places" (Olwig 2002:52–53).

Furthermore, the creation of *lolines* entails a process of spatial and family re-organisation, including household splitting and new types of mobility. In this way, settlements are better described as "resourceful dumps", a space from where to intercept, capture and communicate events which happen in the lived social environment. Turkana herders have managed to transform settlements into living bodies, constantly in movement and deeply breathing.

Nonetheless, if these movements of space are not well accompanied by flexible and supportive interventions, they will come with a host of other challenges, development infrastructure will fall in despair, and malcontent rises.

By seeing like the herder, social, ecological, economic, and political variabilities, seen as threats by outsiders, become instead different forms of mobility of space which take various shapes in coevolution with the moving, building, and unmaking of its inhabitants. The mobility of space translates a different understanding of place, in which uncertainty is a way of life, and ultimately a possibility for resilience in the options it opens when let flow. Dominant theories construct mobility and nomadism as extraordinary modes of living as opposed to fixity and sedentarism, ascribed with normative meanings close to the binomial opposition traditionality-nomadism vs modernity-sedentism (Gonzales 2015). When space itself is mobile, these narratives need to be reconsidered to allow coexistence between nomadism and sedentism. This divide is artificially created according to outsiders' interests of simplification, order, and control. Failing to *see* the nomadism of space and the coexistence of multiple spaces, ignoring or obstructing the possibility of space to move, by imposing borders or permanently stabilising some of its features (permanent boreholes, permanent irrigation, permanent food distribution, and the like), may in turn create what Scott calls "iatrogenic diseases"[113]—especially if these interventions are short-sighted and framed from a sedentary perspective. It may lead to the "clotting of space", preventing fluidisation and densification phenomena[114] (cf. sec.5.2), and leading to a dying space while frustration and malcontent rise, and people's capacity to *see* decreases—and so does their resilience.

To conclude part (I) the understanding of pastoral resilience in relation to the lived space should convey an appreciation of its mobility as *seen* from within: how it is seen, experienced (through processes of enskillment), perceived, and used by the people who inhabit it in their everyday. Resilience is a matter of perspective. From the perspective of outsiders, settlements are points of control and stages of sedentarisation and modernity; as much as irrigation is an alternative production of economic surplus, and roads a way to extract it. In their attempts of simplification of space which aim at turning variability into a constant—immobilising it—lived

[113] Diseases generated by maltreatments.
[114] Which are positive as guarantee continuation of life.

space can clot while malcontent (and worse) rise. From the perspective of Turkana herders, space should be let move.

How they respond to the mobility of their lived space is what I inquire in part (II) of this thesis. The development literature on resilience in drylands frame pastoral livelihoods as the most vulnerable to shocks and creating conditions of insecurity (cf. Chap.1). I now turn to provide another point of view on livelihoods and issues of food insecurity, respectively part of the lifescape and bodyscape components of resilience interventions.

Lodwar is a mirage. We approach Lodwar when the day becomes night. Dust flies over the road in a dazzling cloud. We get off in front of my favourite Somali restaurant in town, and silently share an enormous pilau with sukuma (kale)*, potatoes, cabbage, onions and tomatoes; and a cold bubbling soda. We are too tired to even speak.*

...

Part (II): NAVIGATING VARIABILITIES

*O*ur *nature consists in motion; complete rest is death.*

BLAISE PASCAL,

1966.

Part (II) of this thesis addresses the remaining two "pastoral problems" emerging from the development literature of resilience in drylands: that of pastoral livelihoods and pastoral mobility—perceived as a liability—and that of pastoral risks, focussing on issues of food insecurity. These problems are discussed from the perspective of Turkana herders in their everyday, beyond the shadows of an emerging crisis—even when in its midst, respectively in Chap.6 and 7.

Together, both chapters reflect on the movement of space presented in part (I) as corresponding to, entrenching with, and reflecting the movement of people and livestock. Seeing like the herder entails seeing mobility as a response to the mobility of the lived space. Using the framework of "navigation" proposed by Vigh (2003, 2006), I aim to contribute to the pastoralism scholarship by using mobility as the central analytical lens to explain people's behaviour, their choices, directionalities, and forms of sociality. Navigation, Vigh explains, is a social practice entailing movement through, within, and along an environment which is itself in motion (cf. part I)—as "an effort to gain directionality" (2006). "Navigating variabilities", in the following two chapters, entails mobility across intertwined domains of variability and finding directionality in the "mess" of possibilities emerging from the nomadism of space.

Mobility is in this second part of my thesis used as "something people do"—a quality of their behaviour, of their understanding of space, part of their decision-making, and expression of alternative forms of sociality, socio-economic opportunities, imbued in people's motivations, aspirations, and identity.

Chap.6 revisits a general understanding of pastoral livelihoods to restore a more fluid approach to lifeways. I do so by following the "lines" Turkana herders leave on the ground through their moving (Ingold 2007). Following the lines traced by Turkana herders, it is possible to exit livelihoods' "boxes and arrows" of the conventional Sustainable Livelihood Approach (SLA) to gain a wider view of a "livelihood-net" of experiences and relationships across multiple domains. Resilience becomes motion within motion, laying in the capacity to be mobile, navigating complex variabilities, and moving beyond borders created by the acts of labelling imposed upon human grouping by outsiders.

Chap.7 extends the analysis of Turkana herders' navigation skills beyond the "situational" (the contextual everyday), to also encompass a navigation of the "social imaginary" and the self,

as opposed to the “other”, as an expression of coexisting multiple cultural environments. The chapter shows the construction of a sense of solidarity shared among Turkana herders in opposition to “town people”—a divide which is nonetheless very fluid and bridged by means of imitation, appropriation, and adaptation. Resilience rests in both: in a strong local identity used as social construct of belonging, and in its responsiveness to changes and distinctive fluidity and malleability—or, in other words, in the mobility of identities.

Chapter 6 ~

Practices of mobility



Holding the net while its being laid in the lake. Longech/Turkana Central. April 2016.

We are about to leave to the lake site, Longech. Bags are packed and ready, when Eregae, my research assistant, unexpectedly shows up to the doorstep in my home-base in Lodwar. He was selected for a job as enumerator for an NGO and they leave tomorrow. With transcriptions from 6 months of fieldwork still pending in a vague promise, he leaves me with no help for the lake mission coming up soon. Now, everything must go quickly. A couple of phone calls. A short interview. Ekwee is my new partner for the lake.

After a few days we squeeze in an overloaded pro-box driving to Kalokol. Lake Turkana once used to reach Kalokol, but now vast land, punctuated by Prosopis*, separates the port town—seat of the once growing fishing industry*[115]*—from its waters. Another pro-box, with dry fish in its internal pockets, takes us to Natirae*[116]*, the mainland shore which looks at Ferguson's Gulf. Longech sits on the other side of the Gulf.*

Introduction: mobility to mobility

Imagine that mobility is border crossing,
as though borders came first, and mobility, second.
The truth is more the other way around.

DAVID LUDDEN,
2003.

The main goal of this chapter is to understand local livelihoods using a mobility lens, and to question the "boxy" representation of livelihoods in the Sustainable Livelihood Framework and Approach (SLF/SLA) which imposes labels and categories over people's lifeways, as borders of their identities. In this chapter I argue that livelihood studies based on rigid human categorisations are not only meaningless—ignoring the interconnectedness of

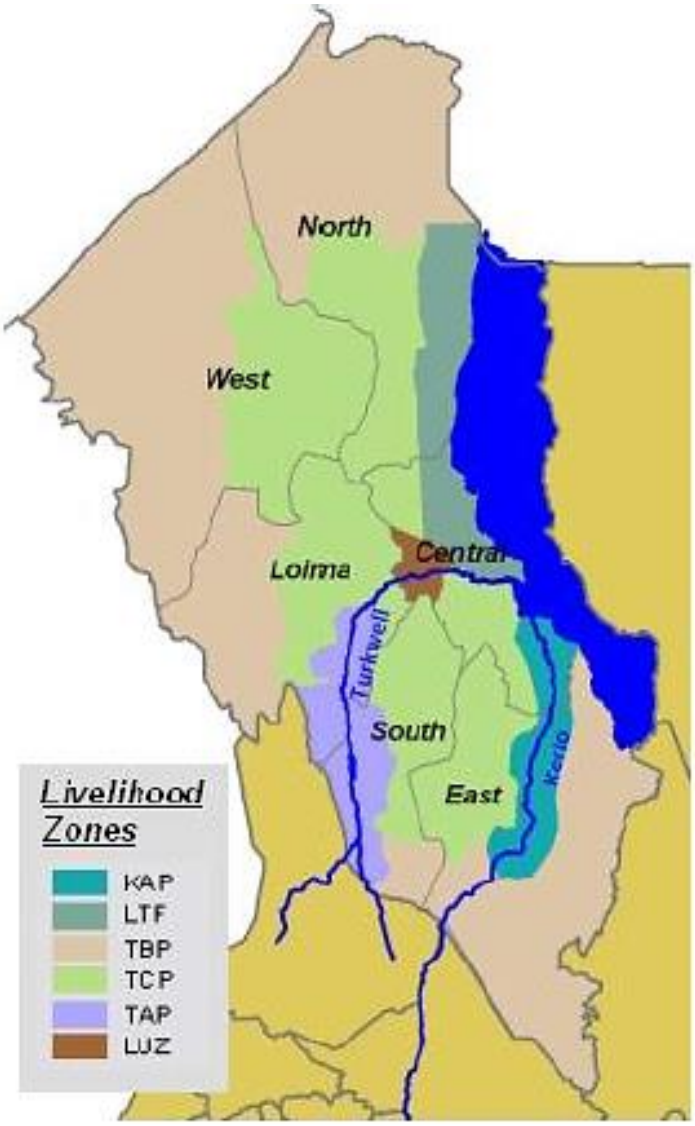
[115] Norad and the Italian Aid Fund (FAI) helped the newly independent national government develop a fish industry in Lake Turkana. They established fishing cooperatives and branches along the western shores, a fish-road which connected Kitale to Kalokol, ice-making and cooling storages, training and provision of modern fishing gear to Turkana people. A range of factors varying from political clashes with the Kenyan government and poor managerial capacities led to the collapse of the fishing structures in Kalokol and expulsion of NORAD from the country. Most facilities opened by Norad remain abandoned till today.
[116] The name *natirae* indicates a place where many *etirae* trees grow (P*rosopis*).

people's lifeways—but also dangerous as they risk breaking inherent connections which instead emerge from a larger-scale relational approach to livelihoods.

Resilience programmes, as reviewed in Chap.1, have fully endorsed a livelihood language. It is nowadays widely accepted that, during crises (the domain of resilience programmes), livelihood-based strategies are important for both recovery and development (Lautze and Raven-Roberts 2006). The resilience scholarship contributed to enrich the understanding of livelihoods beyond reductionist goals of economic or food-production nature, generally listed in the livelihood outcome box, to embrace larger social, cultural, or political issues equally important in the lives of people in crises. Vice versa, the use of livelihood approaches in crisis contexts, as normally referred to in the resilience scholarship, is beneficial for many reasons. Above all, I believe, the greatest contribution lies in the incentives to open our eyes to the complexity of the world and try to understand needs and aspirations from local perspectives without over-imposing artificial categories, but rather recognising the variety of resources, capabilities and entitlements. Livelihood studies want to be a tribute to diversity, but then, too often, they slide into the establishment of homogenous human groupings, defined by their belonging to a livelihood group—from which people are, at best, granted the possibility to "diversify" income streams; and reiterates a teleological approach to lifeways, aimed at pursuing material and simplistic objectives—and the whole world enters a box, with distinct borders.

For example, the map below shows the classification of livelihood zones in Turkana County as proposed by an extensive and detailed study promoted by Save the Children in 2012. It is an exceptionally broad and comprehensive understanding of complex economies in Turkana. Nonetheless, at the end of the long report, each livelihood, (Central Pastoral, Border Pastoral, Kerio Riverine, Turkwel Riverine, Lake Fishing, and Urban) has its distinct space on a map, with its own border of practices, and targeted interventions.

Figure 6.1 Livelihood zones of turkana



King (2012:11)

Hence, the "borders" of the opening quote of this chapter are intended as a metaphor for the perimeters drawn in livelihood-zone maps; imaginal lines defined by the adoption of rigid labels and categories over people's identities. The metaphor of "borders" allows me to use mobility, analytically. I challenge a border-approach to livelihoods, which confines livelihoods within their own categorisation (as imposed by outsiders), by using mobility as the analytical lens to explain everyday practices of my host families and their capacity to transcend "borders".

Today many accounts examine mobility and decision-making in pastoral settings, the various factors driving these decisions, and how these are continuously negotiated. However, most of

these accounts tend to isolate a single variable and a more comprehensive approach to emphasise the interconnectedness of pastoral movements is seemingly absent (an exception is Dwyer and Istomin 2008). In addition, despite nowadays widely being acknowledged that ecology and environment explain only a minor part of pastoral mobility which is also the result of political factors (Elam 1979; Irons 1974), economics and exchange (Dyson-Hudson and Dyson-Hudson 1980), social factors, relations, and networks within and without pastoral groups (Gulliver 1975; Salzman 1978), a language of coping with a harsh environment still dominates outsiders' views of pastoral mobility, which remains implicitly framed as a problem (cf. Chap.1).

In this chapter, I explore how mobility is perceived and practiced by Turkana herders and offer a different insight into livelihoods as a "mesh" of spaces, activities, and relationships. In sec.6.1, I discuss the ways mobility is locally represented and conversed, also showing a discursive tension between mobility/immobility. In sec.6.2, I represent Turkana forms of navigation by showing everyday micro and macro movements through various intertwined domains of their daily lives (natural, social, and economic environments). The categorisation of their movements in the three domains (environment, social relations, economy) is my own reconstruction of their daily practices and it does not necessarily correspond to the ways they express their movement. Indeed, not all aspects of experience can be articulated in language while comprehending the implicit meaning of people's actions requires a different approach (Rodgers 2018). Thus, I approached this chapter as being representative of my observation and participation in the movements of my hosts.

I do so, as the reader will soon see, by drawing from my journey along the shores of Lake Turkana. This is a deliberate decision because it is only from the lake shores that I could see the large scale of geographical and socio-economic connections shaping livelihoods in Turkana. As such, this may be seen at odds with the most typical image of herders in desert plains or mountainy areas with large stock. Again, this is a deliberate choice, as it serves me to contest the "sediment" of ideas of "pure pastoralism" (Kaufmann 2009) as uncontaminated by contacts with agricultural or fisher neighbours, urban dwellers, government administrators or other "disruptive" forces external to pastoral society.

Instead, by moving, people leave track of the "lines" of their movement (Ingold 2007) and exit livelihoods' "boxes and arrows". By their moving they start weaving a thread of all lines

intertwined across multiple domains, that unfolds over a “large-scale economy”. This thread forms what I call a “livelihood-net”, presented in the discussion section of this chapter—like a fishing-net tied to stones across its rim, for it to fall, grasp earth, trap and pull resources out.

The metaphor of the net relies on some rules that nets generally follow, to keep in mind while reading the following pages:

- Nets are created by threads of lines coming from multiple directions and wrapped together around connection points (knots), taking the shape of a network; they contain all geometrical elements (points, *lolines* and other sites of connection; lines, people’s lifeways; and surfaces, the territory); all of this is missing in the “boxes and arrows” of SLA, and it forms a container at variable geometry of bodies and the always mutable livelihoods of Turkana herders (and perhaps everybody).
- They are resistant, permeable, and deformable in function of the prey; and transportable.
- Their ultimate scope is to catch (something, an opportunity, a possibility)

The livelihood-net is a “meshwork” (Ingold 2011) of resources, options, and movements—crucial to navigate across a mobile space.

6.1 Dialoguing mobility: on representations

If you're going through hell, keep going.

Quote attributed to W. Churchill.



Celebrations in preparation to move. Urum/Loima. February 2016.

I confuse flamingos for goats. There is a lot of movement. Cars half-way into lake waters; open boots, boxes and packages moving in and out along chains of arms. Bicycles with piles of yellow jerrycans tight on the back. Boats. Plastic boats, wooden boats, engine boats, rafts. Nets. Women throwing fish entrails into the water. Queues of motorbikes waiting for clients. Skinny cows wetting their hoofs in the lake. Kids running after seagulls. People queueing to enter passengers' boats to cross the gulf and reach Longech.

*

Ethnographic literature about Turkana often reports that Turkana herders are among the most mobile of pastoralists; moving frequently, through long distances, and always to different sites (Leslie and McCabe 2013). I have found myself doubting this statement several times. For example, I have once written in an email to my supervisor: "*Now they don't move anymore*!"[117]; or I have replied to a message from an Italian writer, who had recently published a book titled "*Io cammino con i nomadi*" ("I walk with nomads") (Dak 2016), that: "*My nomads do not move as much*"[118]. Until I asked my-self: what shape does mobility take in Turkana today?

I have turned this question to my hosts during fieldwork, with the intent to understand how Turkana herders themselves talk about their mobility, how they make sense of their moving, and how they represent it. Certainly, it was initially not easy to see all forms of movements I discuss in the next sections—as I have admitted in my personal exchanges with my supervisor. Nor Turkana herders talk about their mobility in the same way I came to think about it.

In this section, I reflect on the difficulties to fully grasp pastoral mobilities and how I progressively started making sense of it. I present how mobility was explained to me during fieldwork, what counter-ideas of mobility people shared with me—to the extent of negative celebration of mobility—and finally how mobility is nonetheless implicit in the constructed lifeworld of my host families and woven in their everyday practices.

*

[117] Email 22nd December 2015.
[118] Correspondence with Elena Dacome, November 2015.

The most common way my hosts explained their movements is *ewote* or *awesit*. Both verbs imply movements involving people and their livestock. Long distances. Search for good quality pasture. Salt and water. Avoid enemies and diseases. Reunite with friends. Choose migration routes according to the spread of social networks.

Alternatively, often people would talk about movement in terms of *aperor*. It means sleeping away, visiting, being away from home just for a short time, a few days. It is an individual movement, with no livestock, generally performed to visit friends, to check on animals in kraals, be updated on the destination of migrations, or on happenings in nearby towns and villages.

Then there is *eloto*, the journey to ask a woman's hand for marriage. It implies bringing sugar, tea, tobacco, goats and sheep to the bride's family—and includes movements performed to seek contributions for the dowry. It is walked by the groom, his friends and relatives, as the first official step towards *akuuta* (wedding), after months of courting and studying the bride's family: their *emachar*, family lineage, wealth and reputation.

Akireb, means to scout. It is the movement performed to better understand a place or a situation. It can be used for indicating the search for rain, pasture, and water when changing location of the homestead (cf. Chap.4), or the search for the location of the enemy's kraals, their weapons, and internal organisation, to prepare for raiding.

Today, perhaps differently from the past, it is not rare to hear complaints about mobility. Indeed, I was not always given by my hosts an interpretation of being on the move as a beloved condition. Moving is associated with many dangers. Often people narrated stories of migrations with livestock, or long walks to collect aid money or join food distributions, or exhausting marches with heavy luggage to market towns to sell basketry/charcoal/firewood/livestock with empathetic suffering. Days with no food and water. Days of scorching sun. Encounters with scorpions, snakes, and hyenas. Days of shame. And needing to beg for food. Getting lost. Entering hostile communities.

Many have also shared with me the desire of wanting a settled house, "*made of mud and iron sheet*; with *permanent water pumps feeding directly into everyone's hut"*, or market days in their villages—"*so that we do not have to walk long distances"*—and irrigation schemes—"*to have our own farms and stop all this moving around"*.

Another recurrent challenge to ideas of mobility is expressed by a deep sense of immobility often found among people living in *lolines*:

> "F*rom morning to evening we just sit here looking at the lake shrinking*" (Male elder, KI, Natabaa, 12/02/2017).

> "*We do not move anymore* (herding livestock)*, we just sit and wait*" (Elderly men, KI, Lokorokipi, 02/01/2017).

"Sitting and waiting" is a recurrent narrative. Also charcoal, it sits and waits: "*Sacks already made are sitting and waiting along roads*". It took me some time to realise that this was not only a "compassionate speech", trying to call my attention, nor uniquely a sign of increased dependence on external aid—rather, these narratives held a broader significance.

In these narratives, immobility is not the simple contrary of mobility; it is a state of mind linked with a sense of separation from the people who are migrating with the family livestock (cf. Chap.5), with the obligation to eat tasteless food (cf. Chap.7), with levels of expectation and frustration brought up from the meeting with outsiders (cf. Chap.5). A lot more than being "immobile" is happening, while "sitting and waiting". Despite my host families often telling me not to move anymore, I walked long distances with them to graze livestock, to go to marketplaces and towns, to meet kin and neighbours. Or, for example, my last trip to greet my host family in Lorengelup before returning to Oxford occurred in the midst of the 2017 drought. Of the three wives living in the compound, all allegedly no longer moving, only one was still living in the same compound while the others had long gone to other preferred locations for times of droughts.

Narratives of mobility start emerging only by scratching the surface.

> "*We cannot sit and wait if we want to eat*" explained a woman in Nangorichoto (FN, 7/12/2015). She, then, listed the many tasks she performs each day to ensure a meal to her family.

> "*Let us rest now; but nothing is like resting in this place*" is what my host father in Lorengelup, Lopangach, once told me when we finished watering his shoats (FN, 18/01/2016). He, then, explained the number of activities we still had to do before resting: gathering *engol* (palm) leaves for their kitchen hut under construction; clear

maize from stones it comes with in relief bags to cook for dinner; find the "brown camel" which went lost; refill the small goats' watering bowel; and collect *ngitit* (acacia pods) for goats at home to feed at night. All these activities involved a different movement and took us to multiple directions, tirelessly, for the rest of the day.

Mobility is thus hidden in people's everyday practices, beyond its discursive representation. Considering, as highlighted by Krätli and Swift (2014), that decades of policies and interventions promoting sedentarisation are likely to have made pastoralist households reluctant to classify themselves as mobile, mobility nonetheless emerges in people's everyday micro/macro movements performed across multiple domains. As explained by a woman we interviewed during our journey in Lorengelup sub-location:

> "*Nowadays we move* to *bring charcoal along the road, or to sell in the nearest centres to buy food. We pay visits to friends when we miss them, and, if they can, they will give us something. We move looking for water which is more and more difficult to find as rivers dry. We move for marriages of relatives and friends we are invited to. We go to Lodwar to sell mats. We move in search of lost animals.*" (HH, 17/11/2016)

The relevance of mobility largely strikes in the context of the everyday, even if is discursively represented as a struggle or as something people do not necessarily aspire to. Not only Turkana herders are engaged with various and intricate forms of mobility in their everyday, but also great excitement rises in preparation for migration with livestock (*ewote*) or *eloto* (cf. opening section's picture), as I could witness several times. Alcohol, dances, storytelling wake every night in a countdown to finally move.

Additionally, mobility is also metaphorically reflected upon the reconstruction of an imagined lifeworld entrenched with multiple idioms of mobility. The complex realm of norms, ideas, and costumes implicit in everyday practices among Turkana herders creates and reinforces ideas of mobility and influences practices. Such imagining is crucial to understand people's lifeways because it does not only influence people's way of thinking, but also their way to act upon the surrounding world, creatively engaging with it. Sanders (2001) suggests using such realm as a lens to understand how people provide meanings to their own world. Likewise, I infer Turkana's understanding of their lived world as well as of their mobility by drawing on the links between the body and healing practices.

The body is an important dimension in Turkana culture (Broch-Due 1991, 2000). A site where practices are grounded (Bourdieu 1977), the body is shaped (takes new forms) by healing practices which also contribute to local understandings of mobility. The Turkana health system is imbued with a set of meanings indicating potential threats and healing practices—both linked with ideas of mobility. Potential sources of harm derive from a cultural repertoire embedded in a particular geography. For example, disease may come from mountains or water points, both seen as dangerous sites. Other harms may instead be carried by *ekuwom* (wind) and its *ng'ipean* (evil spirits), and belong to the supernatural realm. Finally, other diseases belong to the social environment and correspond to social disharmony in the form of the "evil eye" or bewitching associated with broken customs or moral codes[119].

Despite modern medicine being now widespread in Turkana, not all diseases can be treated by such means. Many diseases both for humans and livestock, especially *edeke a akuj* (disease of God), *edeke a ngikpelak* (diseases of witches*),* and *edeke a Turkana* (diseases of the Turkana) require specific interventions often with the help of a local healer (*emuron* or *akapalan*). These diseases are often described through some general symptoms, such as bloating, high temperature, reduction of appetite, but the most common and striking descriptions focus on the subject immobility; *akimookin*—"to stay still", "to stagnate", "less mobile", or "immobile".

> *"You can recognise* emany *when the animal doesn't eat and stays still."* (Young man, LQ, Kaichakol, 24/12/2016)
>
> *"…and then,* lomoo *came. Animals were dying standing."* (Young man, LQ, Akudet, 14/11/2016)
>
> *"Akitoweken is something like malaria for the animals, the animal stops eating and has fever and just stays still standing and no longer moving, until it dies."* (Elderly woman, FN, Urum, 02/02/2017)

Not to be able to move implies death. Not to be able to move is a dangerous symptom which can affect both humans and livestock. Movement guarantees survival. And it is through movement that often such diseases are treated. Practices and rituals such as *akimad* (burning process), *amok* (opening of goat stomach, alive), certain incisions around kidneys (*ngingalur*),

[119] On the "evil eye" cf. Chap.7.

lungs (*ngiukoi*), spleen (*etid*), swollen legs (*sir*), every "opening", adopting Salza's terminology, is done to control sinister dangerous forces which entered the body of the sick animal or person (Salza 2000:4). By cutting, the way is opened for the bad spirit to exit, leave the body and return from where it came from; again, the idea of movement. What can really cure those diseases, freeing the affected subject from its status of immobility, is allowing the movement of forces and energies. Immobility is the diagnosis, and mobility is the cure.

Figure 6.2 Lung and throat scarification



As I progressively made sense of the inherent relevance of mobility in the everyday and in the cultural understanding of sickness and corresponding healing practices, I understood that for Turkana herders there is more than mere motion in the search for water and pasture. Rather, there is a movement of larger significance—their lifeworld is moving and *is* movement. In the following section I describe how movement is "acted out" in the everyday of my hosts hinging upon multiple dimensions of people's lives. It is a movement which transcends borders beyond categories, dichotomies, identities and weave together heterogeneous activities which operate in the everyday, follow logics of "situationality" (Vigh 2006), and incorporate the tension of complex forms of variability (cf. Part I).

6.2 Mobilities outside the [livelihood] box

Would you tell me, please, which way I ought to go from here?

That depends a good deal on where you want to get to

I don't much care where

Then it doesn't matter which way you go…

if you only walk long enough.

LEWIS CAROLL,

1865.



Walking east. Urum/Loima. February 2016.

I lean to the side of the boat to play with water. As we are reaching Longech the colours of water transform. Passed mud and dirt, carried by seasonal rivers flowing after the rains and colouring water with a dark brown/red tonality, the lake becomes blue as a dark night and then green like jade. Approaching Longech, a new microcosm opens to my eyes. A piece of desert surrounded by water. Restless and burning. Hot and humid. Smell of fish. People with red eyes and golden hair. Docked on the peninsula, sand burns under our feet. We run, with all our heavy luggage, to the chief's homestead—which is also his office, and a big shop, run by his wife Akai.

*

Forms of mobility I witnessed during fieldwork are complex and various and can only be understood through the observation of everyday practices. This section outlines some of the forms of mobility I could observe in the domain of the environment, kinship, and economy—although these can only be separated in the abstract and should be read as occurring simultaneously in response to the nomadism of space. This is not a comprehensive list of people's mobilities but only those I was able to interpret through observation and participation in my hosts' lives. I ask the reader to imagine a lifeworld in movement and visualise people in their everyday errands leaving the homestead and moving. As they walk, they leave on the ground a "line", a stamp of their marching, and through all their journeys they weave together the lines of their travels, creating a complex web of relationships which disrupts "boxy" representations of livelihoods.

Mobility in the environment

It is early morning. A gentle wind carries an illusion of freshness. Salty tea and mandazi, *before we meet Simon. Simon is a young man who has studied to become a health worker, but failing to find employment, returned home in Longech. We asked Simon to take us around as part of our planned PGIS as well to start knowing the peninsula on our first days. Our walk ends along the shores which look at the "big lake" (as people referred to lake Turkana, compared to Ferguson Gulf often called "small lake"), in a place called "Equity", the bank of fish*[120]*—because of the plenty of fish which was once*

[120] Equity Bank is one of the most spread in Kenya.

found there at ease of reach. There are a few improvised bivouacs and temporary shelters. Families who live along the shore, with simple palm-leaf structures where to put fish to dry, tangles of nets, and rafts. Ekwee is not keen to talk with them: they are drunkards, "nomads"; they follow fish.

Families living in Equity tellingly explained their movements performed in the domain of the environment. They told us to move with water's flows. They send a scout to assess fish availability when rumours have spread, and then they follow fish and wind; and travel very lightly with all their luggage resting over the small raft which is "*our donkey"*. They use dry palm leaves, fish bones, or pieces of broken jerrycans as pottery to eat and make their own fishing-net ("*a real one costs 3000* shillings[121]*"*). They will stay in Equity until there is fish. Then scouts will leave again to set a new destination.

*

Movement in the environment is travelled following grass, rains, and water (and fish); following resources which move. It can metaphorically be imagined as made of lungs, heart and lightness. The word "nomad" derives from the Greek "*nomos*" which means "pasture". Pastoralists are nomads equipped with a mobile capital (livestock) and a flexible territory. The main limiting factor for a pastoralist is grass. Animals are then able to transform grass into proteins for humans, the pastoralist triad: milk, blood, meat (cf. Chap.7).

Tuareg people from Sahara say, "*We are sons of clouds".* In this, they introduce another element: rain. The relationship between rain and vegetation determines the movement of people and animals. This is the metaphor of heart and lungs described by (Salza 2014): lungs expand and compress in the same way nomad pastoralists aggregate around wells and pasture during dry seasons and disperse when rain comes. They must travel light to endure the long journeys. The material culture of a nomad loading her donkey (or raft) is controlled by three main limiting factors: weight, volume, versatility (Fig.6.3). All pastoralists' efforts, therefore, tend to reduce weight and volume and to enhance the versatility of objects (Salza 2018). A nomad is the epitome of behavioural flexibility and reduction of objects to a minimum.

[121] Equivalent of 30USD.

Figure 6.3 The shepherd's possessions



Pastoralists are "deserts' *chefs*" (Meuret and Provenza 2014). Mobility in the environment is performed to ensure the best possible diet for their animals. In this, herders are more concerned with quality (palatability and proteins) and animals' preferences, than quantity of intake as commonly believed.

This is achieved by separating herds and exploiting multiple habitats within and across ecological zones and matching them with diet requirements for different animals. Broadly, cattle (grazers) need grass and certain types of associated herbage; camels (browsers) prefer leaves and stems of bushes and trees; sheep (grazers) love low grass that grows at the roots of plants, and goats (browsers) eat the leaves on top of shrubs. Difference in grazing patterns of different animals creates both ecological separation, when different herds are taken to different areas, and ecological concentration, when different herds are taken to the same areas (depending on the coexistence of multiple habitats within an ecological zone and degree of competition or facilitation between species) (Murray and Baird 1971). Therefore, goats and sheep are generally kept together (and called *shoats*) because they are not competitive in a shared habitat. Cows and camels could be kept together, but cows cannot be met in Turkana

central plains where grass is rare to find, and they are often separated and grazed in the mountains.[122] Camels, being more drought-resistant, are taken to the central low plains to protect resources in the mountains from over-grazing and exploit shrubs found between distant water points in Turkana central areas.

Animals themselves are skilled to eat what is more nutritious for them (Krätli and Schareika 2010). They feed selectively following the herders' instructions but also their own experience of the territory, external factors leading to distraction, stress, or fatigue, and their own preferences, likes, and dislikes. Yet, the role of herders remain to help livestock balance the available forage through "grazing itineraries" across various ecological niches (Meuret and Provenza 2014).

They stimulate herds' appetite by being attentive to livestock behaviour and have developed fine skills of interpreting animals' feedback to feeding. Many explained that close attention is paid to prevent animals from eating *Prosopis* "*which destroys livestock's teeth*" or ensure goats "*do not eat those stupid little plastic bags*[123]". Also, herders support their animals in places (or times) of reduced pasturage by providing them selected food such as *ngitit* (acacia-pods) which grow in dry seasons.

The humans-livestock relationship is very complex, based on reciprocal learning (Dwyer and Istomin 2008; Fratkin 1997). It is not only herders who learn from and guide livestock, but also livestock which through experience become knowledgeable. New entries in a herd are aligned with older and more experienced ones to learn to eat only "*the right things*" and the ways back home from grazing. I was often surprised to see various stocks walking back home in the evening, alone. Even more so when I was asked to take the 100 camels' herd from my host family in Lorengelup to river Turkwel. I had no idea where river Turkwel was, but the camels did—and took me there, more than the other way around.

Mobility in the environment implies a choice and is characterised by great variability. It is a choice about time, direction, distance, and destination. It is the result of a process of assessments, information sharing (and hiding), as well as exploration and scouting. It is also the product of structural differences (herd composition and labour availability, for example)

[122] Small cattle herds are also found along the shores of Lake Turkana.
[123] Where sugar, beans, maize are generally contained and often found littered over pasturage.

and personal perceptions, attitudes to risk, and general preferences. I could witness these variations several times.

In Lorengelup, for example, I had travelled with two old brothers and their family shoats in Lokitela when all other families had already gone to the "*blue mountains at the horizon"*—showing a different strategy to migration. As part of the same family, I had also grazed their camels together with a larger herd of camels merged from several families. And I have listened to stories of their cattle along lake shores herded by family friends who are also engaging in fishing activities. There is not a single best choice, but a variety of possibilities. Movement is not the simple means by which drylands' heterogeneity is put in use, but also an "experimental framework" (Krätli and Schareika 2010) for a complex relationship between humans, livestock, and land.

Mobility exercised in the domain of the environment is only one form of pastoral movements. There is indeed more than environment in leading people's decisions to move since these decisions also permeate on how people relate to each other. Social and political relations, as shown in Chap.4, promote or impede travel to specific locations or access to resources depending on the existence of friends in the receiving end who could grant access and offer hospitality (Awuondo 1990). Additionally, people's movements are also embedded in their social organisation and performed in the domain of kinship.

Kin mobility

> *We return to Equity to visit one of the families living there. In the evening, when the sun is no longer scorching, we help them mend their net which is often broken by the engine of bigger motorboats; while seagulls sing for the fish which will come. One day we ask them if we can move to live with them.*

Despite the role of social networks in pastoral livelihoods being widely acknowledged, it has not been given a high profile beyond the realm of crisis mitigation, especially in East Africa's literature. However, movements performed to reach "kin", explain large parts of daily movements I observed during fieldwork. Kin mobility is acted with the intention to construct a relationship and sense of community. It is a movement which comes with a quest, a promise, and responsibility.

Drawing from a broader understanding of "kinship" among Turkana herders as discussed by Rodgers (2018) and based on a more fluid arrangement of relationships than blood or lineage (Ohta 2007), or herd ownership (Gulliver 1955), I focus on two principal vectors of movement performed in the domain of socio-relations among kin: sharing and visiting.

*

> *I am thrilled to know about the daily lives and ways of moving of our new host family. Erot is a friendly young man who recently married and has no children yet. He moved with his wife in Equity not long ago. In their bivouac there is also uncle Kapus who has recently joined them because his home in interior Turkana has burnt down due to an accidental fire in the village and he is now looking to start his life up again. There is also a younger kid, from some distant family member, to help with family chores: collecting firewood for cooking, fetching water, and help with dissecting fish to sell. By the end of our first day with Erot's family, while mending their fishing net, Erot's father also joins us from Kalokol—where he went to collect his HSNP*[124] *share as an elderly "vulnerable" person. He now laughs holding in his hands only a small portion of the total amount he just withdrew. The rest has gone to pay "debt food"*[125] *borrowed from local shops and also to friends met along the way back home. Erot smiles at him, with the look of someone who knows how these things work, and continues mending his net.*

From richer to poorer households, from aid-targeted households to not aid-targeted households (such as in the case of the man from Equity), from households whose small crop-field was successful to those whose crop was eaten by birds, from households whose kids hunted a dik-dik at night to those who sleep a second night "*just like this"* (with no food), sharing is a daily practice and norm among the Turkana—a movement performed to give and donate.

[124] Cash transfer program, cf. Chap.1.
[125] Typical practice among my hosts: borrow food form local shops and re-pay them in cash (or in kind, with charcoal or livestock) when possible.

Figure 6.4 Mending the net



As it also emerges from Hammond's study of community creation among returnees in north Ethiopia, sharing is one of the basic principles of community cohesiveness (2004). It is an altruistic movement, acted to gift someone else, the benefits of which will outweigh its costs, as a gift today will probably yield a greater gift in return in the future; or even more simply performed out of affection among friends, family members, and neighbours. Relations built in function of reciprocal gifts are perpetual, as long as the "debt" is never extinguished. The same existence of a "debt" between two parties keeps the relationship open; as a result gifts are never equally matched with future exchanges: it is important to return a little bit more or a little bit less than what was once received—so that the relationship remains active. Inability to share signifies the failure to participate in the community life, while sharing (and reputation of generosity) signifies wealth and power in the social hierarchy of the communities I visited.

Many times, I have seen my sugar or tobacco gifts for my host families being split in several small bags to be given and shared with neighbours. Many times, I have seen relief food being collected at food distribution points, walked back home, and then shared with livestock. Many times, I have seen young boys coming at night in the homestead and quietly awaiting their

mothers to give them some food to bring back to where they are attending to the livestock to be shared with their fellows—at times they brought a bottle of camel milk which they left behind, for the people in the homestead, when in the morning they had already vanished. Many times, I have seen mothers caringly packing some food and money in a wrapped cloth and starting to walk towards the horizon where they knew their children were resting with the animals; or they met around wells, grazing or crop fields, where young daughters were spending nights to watch against birds.

Figure 6.5 Gifts for the groom's family



Children are also shared. They are shared between mothers and grandmothers to help with family chores. They are shared with distant relatives to diversify one's family economy. They are shared to lighten the family budget. The moving of children among families complicates the idea of household as understood in western society. Families' ties are very loose and mobile, households change constellation of members frequently as members move in and out (agglutination), separating and re-uniting into spread units non boundedly defined, on the base of contingent factors, individual or family needs/desires. By the end of my fieldwork I had no certainty about the composition of my host families because connections among members continuously changed and people in the homestead kept on moving throughout.

*

Nights living along the shores are long especially when the moon rises late. When the sun sets many fishermen reach the shores to lay their net in the lake. Erot explains that people prefer fishing without the moon, in the hope to catch more fish. Moonlight would otherwise show fish their way out of the net and let them free. One night, after two rounds of laying and pulling the net, exhausted I walk back close to our host family's bivouac to take the mkeka *(mat) we use for sleeping. And I notice them. Two men, I think. It is very dark, and I cannot see very well, but they have been sitting close to our host's shelters the whole day, quiet and still. They are visitors from interior Turkana, waiting to be attended, which I have learnt can be a very long await.*

The other form of kin mobility is "visiting"—performed as to "ask" for something (*akilip*).

When rains come, and the season of plenty has started, when people are happy and engage in ceremonies, when there is food and time to rest, some members of the families engage in long distance movements to pay a visit to their acquaintances and ask for contribution to their sons' dowry; to pay a visit and ask for money to refund debt-food borrowed during the season of scarcity; to pay a visit and collect previously set debts in the forms of livestock or other favours.

Visiting is also important in the season of scarcity as I could observe in my second round of fieldwork during the outbreak of the 2017 drought. During this period, almost all families who hosted me had visitors at some point of my sojourn. Quietly sitting at the back of the homestead. Waiting to be received. And hopefully given what is asked. During the same time, however, my hosts confided their increased difficulties to meet the requests of their visitors because of the strains they were all facing. Because of the drought, stocks were depleting, livestock was migrating far, and money was little. Hence, visiting as a form of socio-relational movement also comes along with social-pressure, expectations, and implications for future exchange flows. Nonetheless, visiting remains central for the understanding of Turkana social relations, an important part of maintaining links in one's social networks and an important part of socio-relational movements.

As a result, “to visit” is a common explanation of one’s own movement. It is rare for people to visit someone and not ask for something: livestock, food, or even cash. People visit also well-wishers and politicians sitting in Lodwar. They ask for help with school enrolments, participation into development/humanitarian programmes, or for local problems such as broken water pumps or failed food distributions. People visit their relatives—especially those who are now employed in town, in the hope to be give parts of their salary.

I have once met Lopangach, my host father in Lorengelup, with his wife—Akamaise—and one of their daughters walking along the streets in Lodwar. They had gone to visit some relatives to have a share of their salaries. Unfortunately, they arrived in the middle of the month when income was not yet distributed and only received 2000 shillings—not enough to pay back their debt with Ndyo, a local shopkeeper in Lore centre. They were disappointed because of their own “*illiteracy”* for not knowing “*these modern things”*. But they were also disappointed with their relatives for the lack of help (08/12/2016).

Not being able to help visitors is perceived badly as it disrupts socio-relational movements. As a result, “generosity”, by assisting kin, is not a mere symbol of solidarity, but a form of covert social pressure that ensures those who have, share and so doing, in turn, they acquire power and respect. Hence, the number of visitors becomes another indicator of wealth, together with more classical indicators used in pastoral settings, such as herd size or number of wives (cf. Chap.7).

As shown by Chatty, goals of generosity (sharing) and hospitality (visiting) are part of the fabric of pastoral societies (Chatty 1996:174). In a society of limited material culture (cf. above), the material and symbolic value of kin mobility is particularly important supporting physical needs (cash, food, a place where to spend the night) as well as processes of community creation.

Another form of moving I could witness is performed by means of trading, learning new production methods, or taking up various forms of employment—discussed below as part of economic mobility, i.e. in the domain of a complex and diversified pastoral economy.

Economic mobility

> *The two men are coming from Lokorokor, a small village down the peninsula. It is early morning and they are returning home after having had a small share of HSNP cash from our host, and also a bag of maize. I am curious to see how life is over there, where palms and bushes grow in large number—and ask them if we can walk with them. We leave behind the business of villages in Longech, and venture down, walking along the shores. The water is a flat mirror of a pallid sky. Groups of women and young children are shrouded by fish. Cutting, removing entrails, washing in the lake, and carrying it away. Floating entrails and plastic bags play with water. Seagulls and black ibis guard all fishing operations. A woman walks resolutely in our opposite direction. A bucket over her head. Her face is entirely covered by small drops of sweat. She comes from Wadite, one of the last villages along the peninsula before it turns into mainland. The sweat in her face reflects sunlight, but she does not seem to care. The bucket is filled with* ngichok*—palm fruit seeds—which she wants to sell to the "rich Turkana in Longech".*

The woman from Wadite is performing what I called a form of "economic movement". She left home and started a movement finalised (also) at selling goods she possesses. The "rich Turkana", in this case, are Luo women, migrated from Lake Victoria, who run the monopoly of smoked fish in Longech. Palm fruit seeds serve to start a fire which, once covered with a metal grill and old *mkeka* (mat), release dense smoke used to cook fish. The woman from Wadite had planned to ask hospitality of her friends in Longech and find, in this way, some food and company; forms of economic movement weave into kin mobilities.

In the next pages, I describe three forms of economic movement I observed and participated in: trading and marketing, shifting production methods, and by offering "pieces of work" while I define a local "moral economy". At the heart of economic forms of movement, there is an "exchange" which, differently from kin mobility, involves an economic transaction and in which both parts are mutually beneficiaries. Otieno (2015) explains "exchanging" in Turkana as different from "asking". Exchanging is like buying something.

Figure 6.6 Smoking fish



The most typical form of economic movement involves trading, in the monetary or barter economy. "*In the past, 'the people without animals' used to collect* engol *(palm fruit) and crush it into flour. They used to exchange it for blood with 'the people with animals'. At that time, when 'the people with animals' knew it was raining, they were asking 'the people with* shambas' *(gardens) some of their harvest to exchange with animals/blood/milk".*

This is how Akalale, one of our hosts during the journey around Urum, remembers her past in the mountainy border with Uganda: a common practice of exchanging livestock for agricultural products, to supplement diet, and stock for the season of scarcity. With the monetarisation of local economies, these exchanges started to take place between "*people with animals*" and "*people with shops*". Pastoralism scholarship has progressively recognised these forms of economic movement, away from structuralist ideas of nomadic pastoralists as autonomous self-sufficient peoples with little or no interactions with other livelihood groups (Evans-Pritchard 1940; Gulliver 1951; Stenning 1959) to emphasise their increasing integration into the market economy (Fabietti and Salzman 1996). All families I stayed with in Lore, Urum, and Longech locations were involved, in a way or another, in market activities.

Markets take various shapes. For example, they take the shape of local shops now found everywhere in rural Turkana: from bigger towns, to smaller centres, to dispersed homesteads deep in rural areas. People, at times, turn their huts into temporary local shops, by investing aid-money, or by selling big livestock, or by receiving remittances from their town relatives. In these shops there is everything: sugar, tea, tobacco and *magadi*[126], maize, rice, beans, flour, milk powder, biscuits, salt, *shuka*[127], *bananas*[128] and beers, razors, soaps, cooking oil, jerrycans, matches, *royco*[129], chewing gums, beads for necklaces, and paste colours which women use during ceremonies. There can be all of this, or just some extra oil the owner of the shop could afford to buy and now sells back to their neighbours. In these shops, people come to buy what they need; or come to sell small stocks, which shop keepers will then sell at bigger markets; or come to barter charcoal, firewood, or aloe-vera oil for what they want from the shop (food or some cash).

Figure 6.7 The shop



[126] Pieces of dried salt to chew together with tobacco.
[127] Herders' cloths.
[128] Imported sachets of alcohol from Uganda.
[129] Stock cube for flavouring food.

Markets also take the shape of a road. Driving through Turkana, as in most parts of rural Africa, even throughout apparently desolated bushlands, it is easy to notice charcoal sacks leaning on each other or piles of rocks and firewood, unattended and waiting to be sold. The road has become a market; and when roads are unused or less trafficked, goods mound up.

In addition, in each administrative location I visited there are bigger centres which hold market days. People leave their home and walk to these markets, carrying goods to sell (*mkeka*, baskets, livestock, herbal medicines, clothes, crops and livestock) with the hope to make some money to pay a lift back home from local motorbikes or buy first necessities for their families. People also engage in longer walks to towns, like Moroto, or Kakukma for the families in Urum, or Lodwar for the people in Lore and Longech. Here, they wish to sell their bigger livestock (cattle/camels) or roam around to make some money (or find some food) to take back home. Here, people also go to replenish their shops, when stocks have finished.

Increasingly, other forms of markets have the shape of a "trading centre", though the least mentioned form of market by my host families and rarely even used beyond inauguration day. Many, for example, confided that the trading centre in Lokiriama was only used during the opening ceremony. Nonetheless this is the form of market advocated the most by governments or development agencies, to initiate a process of commodification of the livestock economy; it is also linked with multi-ethnic peace initiatives, as I could witness during the preparatory meetings for the 2018-2023 County Integrated Development Plan and during the "delivery as one" UN meeting in Lodwar. However, this form of top-down intervention ignores how markets actually emerge and are thus very likely to fail. Commodification of livestock is occurring, but in a rather different and more dynamic way, by means of local entrepreneurship.

For example, in Urum I spent my last weeks in the main village, while waiting to find a way to go back to Lodwar (cf. Chap.5). During this time, I lived with an elder called Lorot. This gave me the chance to know him better and understand his family economy in its complexity. Lorot arrived to Urum after years of working in the gold mining business. He grew up as a herder boy around a place called Gold. During his childhood, he admired gold miners whom he saw—as he said—"*growing big*", starting to change their clothes, progressively adopting modern dresses. Then, they started owning motorbikes. Finally, they started running parallel

businesses, selling various items, and making money; until they were able to run their own shops. Out of admiration, Lorot left his herd and followed their path.

When he arrived to Urum, a few years before my fieldwork, he was opening his second shop. The first one is in Kakuma, with his second wife. Yet, in Kakuma there is a lot of competition, with many new businesses opening recently. Hence, he decided to expand his activities to a place where there was less business rivalry. His third wife runs the business in Urum with their three children. Lorot's first wife stays with livestock, not far from Urum. He visits her frequently, with his motorbike, checking his animals and bringing supplies. He also brings livestock bought from neighbours and other villagers, to conflate with his herd. When his livestock is fat enough, he rents a truck and transports it to Kakuma and sells it to local *hoteli* (restaurants). Finally, he is saving money to buy another building in Kakuma to rent out, in order to have a "pension" when he is older because "*life should continue being good also at that age*". As this shows, Lorot's herd is, for the most part, devolved to his family economy and commodified for material ends other than the pastoral economy.

Lorot's story is a form of spontaneous livestock commodification, more functional, in touch with the lived space, made of constant micro/macro-movements, not confined in a single place and fixed infrastructure, and more dynamic than participation into planned auction days in formal trading centres. Lorot is travelling through several locales, connecting multiple economies of exchange, and benefiting from changes in his lived space—he is acting out a form of "economic mobility".

A final form of markets is "mobile markets" in the shape of itinerant traders, like those who enthralled Lorot in Gold. It is common to see traders coming from down-country selling tobacco or tea leaves, even in the remotest of places. It is common to see people walking following dry creeks selling alcohol sachets smuggled from Uganda. It is common to see Maasai traders with buckets of lumpy liquids, or colourful powders, or wooden sticks for medical purposes. Along lake shores, middle-men drive to collect stakes of fish to sell to the Congolese in Kalokol. Along lake shores, people move to collect *fagy* fish—rotten, wasted, left-overs from bigger fish—to trade with Luo people who grind it and use it as feed for chicken. Along lake shores, anonymous foreigners from Japan come to trade dry stomach of Nile perch used as biodegradable thread for surgical purposes. Also, Chinese traders come to interior Turkana regions to buy donkeys' hides and skins.

Continuing walking along the shores, the next village we enter is Jaap City. We are attracted by a noisy group of young herders, crowded on the side of a small hoteli. *Epuu is particularly eloquent. He is in Jaap to work. His home, the place he considers home, is in the rural areas with the animals. Here he comes to work when he needs to supplement the herding economy, when he hears there is good fish in the lake. He learnt how to fish from local fisherfolks and then became very good at fishing. He now comes every year for a few months. Initially, he used to stay with friends who could host him. Now, one of his wives lives permanently in Jaap City. They have three children. One of them lives in Kalokol with some relatives while attending primary school. One stays with the mother, helping her with house errands. They will decide whether to send the last-born to school or to their home with the livestock. Epuu says it will depend on the kid's own skills, on the needs of the animals, and on God's will.*

A second form of economic movement involves temporary or permanent shifts in production methods: from herding, to farming, to fishing, to employment in towns (cf. Anderson and Johnson 1988; Sobania 1988). In these terms, economic movement is a physical movement as a means to change economic status and comes intertwined with forms of environmental and kin mobility. Epuu came to the lake in search of resources he heard were available along the shores. Epuu came to the lake thanks to his initial connections who could host him, and he became a successful fisherman thanks to the new friends he made along the shores. Finally, Epuu came to the lake to respond to an economic need to support his families, at times his livestock was not enough. The settlement of Turkana people along the shores of the lake, in some cases, does not transform them into fishermen but rather into part-time fishermen who continue investing in the livestock sector as they can (Hogg 1982). In some other cases, instead, "*those who left never came back because they are used to town life now".*

Permanent or temporary economic shifts are very common in Turkana, as many have left pastoralism and moved to town or settled agricultural schemes, in a, more or less, stable way (McCabe 1990). Such movement occurs within Turkana or beyond Turkana to "down country" or outside Kenya. One of the young men driving passenger boats from Natirae to Longech once told me he was new to the lake, having been sent by his family to look for means to support them. He is now waiting for some friends to call him from Doha where they have

managed to find good occupations. He wants to follow them and see what the world can offer him "*beyond fish and salt"*. These forms of movement, therefore, do not only reveal economic flexibility of livelihood groups, but also larger aspirations shared by peers. This is possible also thanks to new technologies such as motorised vehicles, or mobile phones, and GPS, which have opened-up new mobilities and techniques of practicing pastoralism and combining pastoralism with other types of work (Ahearn-Ligham 2016; Chatty 2013).

> *We stop in Lokwar a Fisheries for the night, sleeping along the shores. We wake up when sun rises, surrounded by many women who have reached the shores for their morning activities. While waiting for the two men to finish their errands in Lokwar a Fisheries, we ask the women if we can help them. We take some fish from one of the piles along the shore and put them in small mended nets. Their scales sting. We walk in the dirty and muddy water and dunk the small net. We wash it quickly and bring it back to the shore, where I am introduced to Antony. Antony buys the fish that we cleaned, and we help him carry it home. A red bucket full of fish over my head. Antony tells us that this job would normally be paid 50* shillings, *each bucket. We take the bucket to his homestead. As we enter, strong smell of dry fish assails us. A sweep of hundreds of small fish is drying over an improvised mat of grass and palm leaves. On a side, a pile of fresh fish—where we throw those from the red bucket.*

A final form of economic movement performed responds to a "light", "moral" economy which connects co-villagers through what I call "pieces of work".

During my fieldwork along lake shores, I have for long been frustrated by a common statement: "*Here, if you do not work people will not help you!*". Searching for collective forms of resilience, this was not an ideal answer. But there was a different story hidden. Along the shores of the lake, small jobs have been created for the needs of richer people (like boat owners or shop keepers) in support of poorer people, in line with the economy size. Hence, many small jobs, called "commissioned work", developed, including transporting fish to people's homesteads, cutting and cleaning fish from its entrails, bringing firewood or carrying water jerrycans from wells, or making fences for people's homesteads, in exchange of a small pay or some food. Activities which involve a movement enacted for an economic end, but also

hold meanings of local support and struggles and contribute to build community cohesiveness through complex patterns of assistance that involve neighbours, friends, kin.

This is the story, for example, of a woman we met in Wadite—when we finally approached the end of the peninsula. Following a lived trauma, she does not remember where she comes from and why she came here. Neighbours saw her arriving to the shores alone, in very bad conditions, many years ago. "*She had nothing with herself and her clothes were torn*", some of the villagers told me. She spent a long time roaming and wondering along the shores. Slowly, people started calling her for small commissioned work. Collect water. Transport fish. Weave a mat. Bring *ngichok*. Small money was given, together with many new relationships and friends. She then built her own hut in Wadite. In the morning she wakes up and goes to the shore and sits there, waiting to start her economic movements of the day. These movements maintain the local economy around Lake Turkana and are also similarly found in the desert plains around Lore and in mountain areas in Urum—where they are often referred to as "pieces of work": build a hut, fetch water or firewood, gather wild fruit.

I understand all these forms of exchange (trading, shifting production methods, supporting a moral economy) as economic micro/macro-movements, because they entail a movement to an economic objective, which also comes with a great deal of dedication, flexibility, hard-work, saving attitudes, and courage to follow broader aspirations.

All the forms of mobility discussed in this section interact and weave into each other and are all relationally defined. It is in fact the relationship with the lived environment, with kin, with neighbours, distant relatives, and friends that allows moving and allows the overlapping of the different shapes of movement. Together, all these practices of mobility involve more than "surviving" or "coping", as pastoral mobility is frequently depicted in the development literature and public discourse (Shanahan 2016). The complexity of my hosts' behaviour, revealed by a detailed observation of their everyday practices of mobility, made it evident that their mobility is part of the way people organise their lives—and not a "temporary response to declining entitlements" (as Davies 1993 define coping strategies)—rather, it is essential to seize "fields of opportunity" (Goodhand 2014:19, in Hammond 2019).

Discussion: resilience and the “livelihood-net”

Here people do fishing, but they live a pastoral life, and practice retail trade.

LONGECH CHIEF

Longech, 13/03/2016.



The livelihood-net.

We are now reaching Namukuse, the very last village of this stretch of desert surrounded by water. Hot air trembles over soft dunes. Lake water slithers, low. Apart from seagulls singing their chant of hunger, silence. Unexpectedly, between one palm tree and another, big houses with triple layers of different muds painted with bright colours appear. Shops. Churches. Private houses and villas. I find myself surprised and asking, 'how does wealth look like along the shores of Lake Turkana?' It is an invisible wealth, I think, hidden among palm trees and to livelihood analyses. Rafts on the small lake make a slalom among growing etirae (Prosopis) *in shrinking waters. On the "big lake", bigger boats in search of bigger fish. We swim at sunset watching central island and, for a few minutes, forget crocodiles.*

*

In this chapter I have explored the ways Turkana herders navigate their lived spaces. I have begun asking how their mobility is locally represented and explained, and then looked at the multiplicity of factors they follow in their moving. Considering all the forms of pastoral mobility discussed in this chapter (sec.6.2) and their representations (sec.6.1), pastoral livelihoods can no longer be confined in livelihood zone maps (sedentary by nature) nor in the "boxy" representation of SLA approaches.

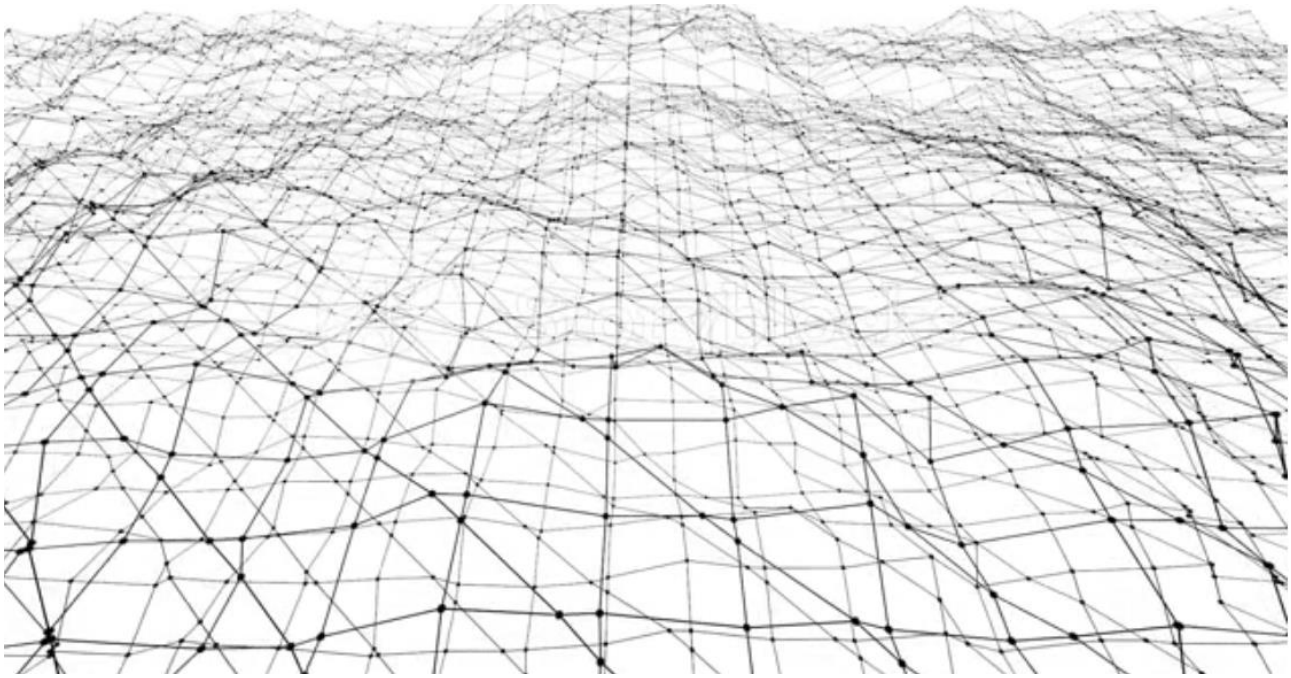
Mainstream policymaking largely relies on livelihood zone maps to plan interventions. These maps are based on a homogenising political discourse which categorises people's lifeways into livelihood groups, each enclosed in its "box". Categorisation is a basic mechanism within social sciences and policy circles (Bakewell 2008b). Bakewell warns us from the risks of conflating what he termed "academic categories"—developed from scientists while doing their researches—with "policy categories". The latter, in fact, tend to be over-imposed and fairly invariant over time and space. They tend to be organised around bounded geographical units and socio-economic groups, recognising little diversity and flexibility within each category. Policy categories end up producing bureaucratic labels which "stick" to people and activate stereotyping which "involves disaggregation, standardisation, and the formulation of clear-cut categories" (Zetter 1991:44). In other words, they tend to give dichotomic interpretations of people's lives (de Bruijn et al. 2001): pastoralism, agro-pastoralism, farmer, fisher, urban livelihoods, etc.

As a result, local livelihoods are analysed in relation to a single location and a single economic activity (de Haan and Zoomers 2005). Migrating away from the assigned micro-location is seen as a local response to problems ("coping strategy") which need to be solved to preserve the natural state of being, conceived in terms of stability—while this logic is arguably reversed in drylands where for example positive environmental change (land flourishing, increased precipitation, peaking nutritive values) generates mobility. Mobility cannot be framed as coping but as an advantageous strategy developed to benefit from traits of the lived environment. The micro-localisation of lives and livelihoods corresponds to the needs of SLA to put everything in "boxes and arrows"; while it all happens outside these geometries.

Still too few policies nowadays recognise different forms of pastoral mobilities than the search for water and pasture—out of the livelihood box—and still few policies consider other—non-livestock—activities shaping pastoral livelihoods (Catley 2017). Moreover, whenever these other activities are instead considered, they are generally explained either in terms of adaptation (maintenance but modification of a core livelihood), diversification (activities added to a core livelihood), or alternative livelihoods (moving out of pastoralism—a shift towards different livelihoods). Yet, this forgets (or ignores) considerable fluidity between these categories which emerges only if one broadens the analysis at a wider socio-ecological and socio-economic scale, including different areas, communities, and households. The danger of treating production systems in isolation is to increase fragmentation by breaking connections at a higher scale of observation. Conversely, I aim to portray mobility as a complex vector of socio-spatial and socio-economic connectivity which serves to navigate variability.

As a result, livelihoods are better conceived as a "web of relationships", across multiple domains (i.e. environment, kinship, economy), which disrupts the "livelihood box" by seeing different livelihoods not as absolute states but as co-constituting each other and weaved together into a broader "livelihood-net" and multi-resource economy.

Figure 6.8 Livelihood-net



3d mesh surface, accessed online: 08/2019

For example, during fieldwork I encountered: fishermen with cows; pastoralists with shops; everybody had a small farm and did farming any time they could as long as there was some rain; pastoralists with nets and boats; local seers and diviners in new catholic churches; teachers who also herded and raided; politicians who participated in initiation ceremonies; herders smuggling Ugandan beers into Kenya; fishermen crafting goat skin skirts weaved with palm seeds and fish bones. These images are missing in policy discourse which still represents herders as young men living in pristine wilderness in symbiosis with their animals, or destitute and vulnerable to the lack of rain and pasture. It is instead difficult to find representations of herders with fishing nets, or a hoe in their hands. There is no herder, no household, no family history, no needs, goals and aspirations which are the same. The heterogeneity of space is reflected in the heterogeneity of decisions, lifeways, and movements performed by herders in their lived environments.

The livelihood-net is not a "network of interconnected points" but a "meshwork" of interwoven lines—in which life is along (Ingold 2011:151). Each node, in the net, is a tangle of lines, and each thread is multidirectional and multidimensional, by following complex forms of mobilities employed in several simultaneous domains. The net is deformable taking the shape of the "prey"; and is movable, transportable. By means of various forms of movements,

pastoralism becomes better defined as a complex, heterogenous, fluid, and interacting system which crosses multiple spaces. The intertwined lines of people's movements determine the degree of economic integration, social circulation, and socio-ecological connectivity as well as the degree of incorporation of complex forms of variability. Their mobility can be, in other words, an important manifestation of their resilience (Hammond 2019), allowing movement outside the "livelihood box" and seizing opportunities and relationships.

It is important to notice that with the idea of a "livelihood-net" I do not aim at conveying a picture of necessarily harmonious societies. In line with Massey (2005), I do not aim to generalise mobility as a universal benefit. I have met people who struggle leaving a certain place because they cannot leave their old parents alone. I met people sorrowful because someone had left and never been in touch again. I met parents who invested all their camels for their son's education and disappointingly are still waiting to be refunded. And I met youths in town shamed not to be able to support their parents back in the villages and thus avoid going back home to face them. I also met youths in town who feel embarrassed of the lifestyle of their parents and hence also avoid going back to their villages. I had local assistants who left me in the middle of a mission because they could no longer accept certain living standards. I met people who struggle learning "*these modern things"*: weaving, charcoal burning, driving motorbikes, managing shops. I met people who cannot move faraway because of their disabilities. I met people who have been cursed by their jealous brothers and lost all their livestock; they stopped migrating with the animals and remained with nothing else to do. I met people who failed in their business because of increased competition and now beg for a living. I met people who struggle receiving relatives and visitors and acting as good hosts in support of kin mobility.

Mobility is a socially differentiated phenomenon, differently experienced and mediated by a wide range of factors. "Some are more in charge of it than others, some initiate flows and movement, some are more on the receiving end of it than others, some are effectively imprisoned by it" (Massey 1993:61). It can create ruptures in society, jealousies, rivalry, and greed. It is nested into power relations and personal capabilities and entitlements. There is competition over resources, over few opportunities in the labour market, over entrepreneurship activities. In Urum, for example, the marketisation of aloe-vera by Somali traders pushed most shop keepers also to engage in the same business. Somali traders were

eventually overcome by local merchants and retailers whose success pushed the Somali to leave and pursue their businesses elsewhere. Along lake shores, middlemen run fast with their pick-ups to buy most fish from local fishermen and have larger power in negotiations with Congolese dealers. Newcomers to Longech may find hard times against Luo women if they wish to start a business with smoked fish. In Lore there are fights for water rights around shared water pumps among several villages, for those who get shares from payments to access water.

Thus, with this chapter I do not argue for an uncritical primacy of pastoral mobility. Rather, I argue that mobility—if unconstrained—can be an important part of resilience in everyday life and that livelihood analysis should consider the risks of (im)mobility thereby providing a lens through which to better understand political, economic, and social processes in contexts of high variability.

> *After a week spent fishing at the bottom of the peninsula, we go back home. Bags are ready before sun rises. We are sitting along the shores, waiting for a car of middlemen to drive through the peninsula in search of "stacks" of fish to buy and re-sell in Kalokol, and hope they would give us a lift. We manage to stop a pick-up truck. Just before jumping on the back, I turn to collect some sand for my home collection. The driver stops me; and with concern asks what I want to do with that sand: "do you want to curse us all?". I pause for a moment and then blow it away and look at it while falling on the ground. And we leave.*

My host families in Turkana taught me the existence of an entire new imaginal[130] world to which I was not attuned—a world in which a pinch of sand can bring great turmoil. And a world which requires a "skilled way of being" in order to belong, as discussed in the next chapter.

[130] *Mundus imaginalis* by Corbin (1976) referring to a mode of perception which is a synthesis between the realm of sensible experiences and imagination.

Chapter 7 ~

On food and no-food (lack of):

Responsiveness to change and the mobility of identities



Milking. Lokitela/Turkana Central. January 2016.

Food is more than calories intake, dietary diversity and consumption levels.
Food is a song and dances. Food is a pot, and charcoal, and matches.
Food is the route walked to reach a friend no matter how far, when you have no food.
Food is a prey to the clouds. Food is a berry collected when goats are drinking at the river.
Food is a woman, a calabash, and milk. Food is money, a shop, and big white bags "USAID".
Food is the strings of those big white bags when empty and re-used to thread necklaces.
Food is local brew. Food is a road, and cars. Food is your children who now have another mother. Food is also those other children of yours who now look like street children. If you cannot feed them, you are happy they stay away. Food is in the lack of food, food is no-food.
I have learnt to stay-without.

(Field Diary, May 2016)

Introduction: flipped narratives of vulnerability

Loporucho welcomes us with an apology. "*Nowadays, the sun denies us to treat visitors properly*". He means he cannot slaughter one of his goats for us. Not that he would really do so, as he is unsure of the purpose of our visit. However, the sun has little to do with his impossibility to offer us a goat. He is old and has now parted from his livestock. He moved at a walking distance from a growing *loline* and hopes to gain something from the road and shops. We learn he has multiple large stocks, "*some of which must be already in Uganda by now*"—amid the dry season. Nonetheless, such non-offer was enough to act—to perform—as it complies to wealthy families when receiving visitors.

He wears a single line necklace with big red beads matching the colour of his hat. A pink ec*huka* (blanket) around his hips, folded on his legs as he is sitting on his *ekicholong* (head stool). Around his wrist he shows an *abarait*, a circular knife protected by a piece of stretched goat skin, used to cut meat during *akiriket* (meat ceremonies). *Aburo* (herder's staff) and *esebo* (hunting club)—of which I have noted an increased display in times of outbreaking drought—both lie on the ground next to him. And finally, a ram-horn, where he stocks his tobacco, hangs from his left shoulder. As we discuss, he is definitive in asserting that he does not know the "*things of town*" such as schools and "*those modern ways to earn shillings*." "*For us raiya is all about animals and making* ng'akibuk (sour milk) *in* etwo (gourd)." (FN, Ngiipae, 18/11/2016).

*

This chapter is about people, the construction of their identity—or better, a sense of solidarity built around the feeling of belonging—and the mobility of this identity in the navigation of multiple cultural environments, as reproduced in the "social imaginary".

The art of navigation—the use of mobility as response to the mobility of the lived environment and "gain directionality" (Vigh 2006)—is in this chapter stretched beyond the "immediate"—the contingent and situational context which drives mobility in the everyday (cf. Chap.6)—to also entail the navigation of the "social imaginary", through the construction of a collective performance of the self and enactment of a process of othering.

Navigating the "social imaginary" implies, beforehand, the construction of local identities as imagined, produced, and reproduced in the relationships within and without groups of belonging and solidarity—or, in other words, the construction of a "skilled way of being"

considered attuned, accustomed, and rooted to cultural places. And secondly, it implies the ability to cross and bridge over varied imagined cultural places (in this chapter across rural and urban areas) and their respective characterisation.

Resilience rests in both: in the local identity used as social construct of belonging and solidarity, and in its responsiveness to changes and distinctive fluidity and malleability—or in other words, in the mobility of identities.

In particular, this chapter explores the construction of identity among Turkana herders in relation to food, or better: "no-food" (lack of; absence of food).

Contention about meanings of food is a salient node in the relationship between Turkana herders and their urban counterparts, and more generally between pastoralists and "outsiders", largely set around a notion of food security, and part of a bodyscape component of interventions which aims at safeguarding the living body from recurrent risks (conflict, diseases, food insecurity).

Debates of food security have a long history, dating back to the 1970s (Maxwell and Smith 1992). From a simple problem of supply (Gross et al. 2000; Valdés 1981; WFC 1974), food security was increasingly recognised as a question of access and entitlements (Sen 1981) as well as discussed in terms of (varied) cultural preferences and food uses (WFS 1996).

More recently food security and nutrition issues have also entered the heart of resilience discourses (FAO 2013; Hoddinott 2014a; Von Grebmer, Klaus et al. 2013). Food security is often used as a proxy for resilience as both input and output for increased resilience (cf. RIMA—FAO resilience measurement model), generally measured through standard indicators of nutritional values (caloric intake), dietary diversity, and consumption scores (Barrett 2010; Coates 2013; De Haen, Klasen, and Qaim 2011). Nutrition and food security of "vulnerable" populations, especially in crisis situations, have been a priority for humanitarian interventions and usually involves the provision of food in-kind (Czuba et al. 2017), and increasingly also cash-based interventions to enhance people's resilience (either by directly preventing starvation or saving depletion of assets through the selling of capital to buy food).

Resilience is seen as a pathway to achieve zero hunger; a goal which in the post-2015 development agenda took central stage in the international agenda for sustainable development (SDG goal 2: zero hunger challenge).

> "Hunger is the most extreme manifestation of poverty and human deprivation […] Hunger breeds desperation and the hungry are easy prey of those who seek power and influence through crime, force or terror" (FAO 2002).

Hunger is usually understood to refer to the distress associated to lack of sufficient calories (Hammond 2018). Food insecurity through its emotive counterpart (hunger) has become a symbol of vulnerability—an equation typically found in the context of drylands where food shortages are a constant threat (cf. Chap.1). And yet, as I show in what follows, I heard rather different narratives from Turkana herders through the performance of their identity.

From the perspectives of town dwellers, the identity of Turkana herders remains tied to a sense of tradition which explains their lifeways being resistant to settle and convert towards a modern urban life. However, it would not take a long time for those who venture outside urban centres and road settlements to understand that it is not tradition that ties Turkana herders together. As I show by the end of this chapter, tradition proves malleable and fluid, and individual identities too. What more strongly emerges is the reproduction of a collective social imaginary through everyday performances of being *raiya*—as they referred: a person who lives in the reserve, a herder, an original Turkana (cf. also Rodgers 2018).

A large part of being *raiya* entails the capacity to "stay-without" food, as a wider signifier for toughness, endurance, and ecologically-situatedness. Thus, conversely to what is implied in development/humanitarian programmes, food insecurity—defined as chronic lack of food—is not a synonym of vulnerability, but a marker of belonging and sign of strength.

In this chapter I present the perspective of food security as portrayed by Turkana herders basing on the empirical observation that hunger can be turned into a matter of pride. Through their hunger Turkana herders perform a distinctive collective identity which is different from the "*lazy and weak town people"*—spoilt and vulnerable, always whining, incapable of walking long distances, and only thinking about food; a collective identity which resonates against images of poor and vulnerable herders commonly portrayed in policy documents.

Drawn into a flipped narrative of vulnerability, I used food as an entry analytical lens to understand people's representation of their own vulnerability, because food was my starting observation for the construction of a collective rural Turkana identity. However, I quickly learnt that food signifies much more than food per se.

That the significance of food is not limited to its dietary intakes is well established in the anthropology of food. Food is social, emotive, psychological, political, economic, religious, gendered, symbolic, and sensuous (Holtzman 2009). Food is a key element in the construction of personal and collective identities (Diodato 2001; Guptill, Copelton, and Lucal 2017; Monsutti 2010); it marks membership in some groups and signals outsiders. I contribute to this scholarship by focussing on meanings of no-food (hunger, lack of) and what role they play in the construction of identities too—which is largely underexplored (Phillips 2018).

I start my analysis in sec.7.1 with the presentation of a distinctive sense of solidarity built around hunger and capacity to "stay-without", and then expand on other features which determine belonging in terms of dietary, fashion, and other convivial habits (sec.7.2). Rodgers, in his study of social differentiation associated with the expansion of urban centres and impacts of development in Turkana, discusses *raiya* also in terms of "skilled performances" (2018). Following this approach, I focus on the relational aspects of these performances as forming a collective "personhood" which I argue represents a hidden dimension of resilience.

Despite resilience studies having developed an emphasis on the integrated essence of human and natural components in socio-ecological systems, they systematically lack a nuanced understanding of the most cultural traits of various actors whose lives and livelihoods are implied in the SES models (Crane 2010). Attention to the meanings of feeling part of a group is scarce, whereas I have found belonging and sense of solidarity—being part of a group—are crucial aspects of the lives of people who have hosted me during fieldwork.

In brief, sec.7.1 and 7.2 together serve to argue that Turkana herders have turned their vulnerability into a group survival-strategy (de Bruijn et al. 2001), on the basis of a sense of community—and that this is an important source of their capacity for resilience.

In sec.7.3 I highlight incongruity found between presentations of the self and daily practices. I do not argue that the presentations of the self are an invention nor that they do not hold significance. Rather, I want to show that identities are malleable and can move across cultural environments. A "mobility of identity" is employed while following lines of movement across varied environments and navigating socio-cultural landscapes. By unpacking contradictions and ambivalence between memories, narratives, and practices I show responsiveness to changes, and the coexistence of fluid identities among Tukana herders—*raiya*.

7.1 Solidarities of hunger

Have you experienced fierce hunger,

cold which penetrates bones,

hot which leaves breathless?

…

Humbly, yes.

ROBERTO BOLANO

Interviewed by Mónica Maristain

15/07/2003, released a few days after his death.



Offering a drink. Lorengelup/Turkana Central. November 2015.

"*Aponopono: you could have told her that there is something known as thirst*

— *you could have told her that there is something known as sun*

— *you could have told her that we have learnt to stay-without*".

(FN, Lorengelup well, 19/01/2016)

We were preparing my visit to the sons of one of my host families during fieldwork, who were migrating with family shoats. We met at their family wells one day we knew they would have taken shoats to drink. Aponopono, the elderly brother, was worried: if I joined them, I would lack comforts he assumed I am used to like cool water and shade from sun, while also praising his own ability to survive despite undesirable hardship.

In this section I explore how such undesirable hardship is turned into a "pride to belong" that is only shared among those who "go-through" and grow accustomed. A remarkable part of such undesirable hardship is made by the lack of food, which I show being a salient aspect of the *raiya* identity, together with the identification of a typology of food considered suited to a pastoral life.

*

In Turkana, herders have grown accustomed to a lifeway which takes them to walk long distances at the danger of scorpion bites as well as fighting with sharp thorns while herding livestock, fetching water or firewood or gathering wild fruit. While carrying tasks, they have adapted to a modest diet largely composed by fresh or fermented milk, sorghum or millet when available, dryland small berries and fruits, occasionally meat, and blood at cattle camps during dry seasons. They have adjusted to hunger and thirst. They describe with pride the harshness they have grown accustomed to.

Consequently, those who are not adjusted do not belong (yet). Indeed, for my hosts I have (at best) remained a young girl who is still training, "learning to adjust". For most, I have continued to be a town girl (still of young age because of my thin body and lack of husband). This, surely, caused a few problems while trying to get as close as possible to my hosts. Like the time I was left sleeping when all family members of my host family went to *edonga* (village dances) one full moon night. My host mother understood my sadness the following morning when I realised what I had missed. There was empathy in her eyes, when she took my hands

and explained she was not sure "*my feet had adjusted to their tough terrains, when at night is easy to step on thorns and be injured*" (20/01/2016).

Conversely, I felt proud when people amused at my capacity to take water from shallow wells: "*as we do*". When my hands were oily and dirty from camel fat. When I dried my lips from drops of fresh blood. However, I never belonged. To belong implies firstly to acquire a certain skilled way of being, only achievable by "going-through", adjusting, and overcoming problems: *anaikis nghichan*.

Going-through

Mama Aruk, a strong woman and wife of the chief in Lorengelup sub-location called me back a few steps after I had departed from the village to begin my first experience with "real Turkana" or *raiya*. Mama Aruk called me back and gave me a spare charcoal stove she was no longer using. "*They*—raiya—*do not use this for cooking. They survive on bushes and cook only with firewood, otherwise it is only milk and blood over there*" (17/11/2015)—she explained, while portraying a collective imaginary of being *raiya*. As I thanked her and promised to bring the stove back on my return, I felt uncomfortable. With her kind gesture, what she really meant, perhaps rightly so, was that I would have struggled in the bush because I was not strong enough and had not adjusted yet.

There is an image of being tough and stoic which was constantly presented to me throughout the entire fieldwork, also reproduced in the reconstruction of event calendars.

> "*It was* ekaru emuudu (the year when everything got finished). *It was a very dangerous period, a year when most animals were attacked by diseases within a scorching drought. Before, people were rich and healthy, grass and trees used to reproduce in large numbers. Conditions got worse now. Rains disappeared. Grass withered. Wild fruits went absent. Disease became fierce and dangerous, and killed people and animals.*" (Male elder, Kangichok, KI, 19/11/2015)

I was asking John Lopua, an elder from one the small settlements born in the surroundings of Lore centre, to share with me one of his worst memories.

> "*People started eating dogs because they lacked food to eat*", someone else added.

"*Dogs were not the only thigs we ate. We also ate dried animal hides* (ejomu)*. We used to soak it in water to make it soft and later it was cooked in a pot*".

"*Others roasted it*".

By then, Lopua's story had become a collective recollection of tragic details to which a group of people whom have gathered under the big *ewoi* (acacia)'s shade contributed. Multiple voices echoed:

"*People sold their children* (register for employment) *to the farms in Kitale*"

"*And then rain came. But the grass that followed was not good grass as the survived animals were getting sick with diarrhoea*"

"*…. Many houses were destroyed. Animals died both in the field and in kraals. Most trees fell, floods carried away many properties. That rain was not a blessing. It was accompanied by thunderstorm. Both, cold and thunders killed our animals*."

From this account, one of the many I collected, there emerges an underlying story. One which goes beyond the struggle and the suffering. There was something unnoticed when these accounts reached the end; something initially difficult to grasp which contributed to the concern felt by Mama Aruk when she saw me leaving Lore centre for the first time. There emerged a certain "pride" to "have gone through", having survived and persevered to the "season of plenty".

John Lopua Lourien and his friends agreed: "*…but we are used to this place*".

"To be used to this place" is a quest whether us (outsiders) would manage to survive what they have repeatedly faced in their personal history. It is a quest for flipping sight to reveal strength and toughness as opposed to vulnerability and poverty. As I tried to understand what this implied, responses aligned around a skilled way of being (tough), to go through; and indeed "to be used to this place" was generally followed by another expression: *anaikis nghichan*.

It was translated to me in various ways: having endured, adjusted, or getting used to challenges. The underlying meaning was clear: to be accustomed to place; while lamenting for

difficulties among fellows would instead be taken as sign of weakness.[131] Place becomes an inherent part of one's own being. In rural Turkana this takes the form of an "identity of survivor" around which Turkana herders have built a collective persona: *raiya*. *Raiya*, as a social construct, gives strength, value, and meaning to one's own life in the everyday of her environment. Those who do not belong may suffer and struggle through, because they lack the skills to survive—of "being a survivor"—as Aponopono, at the beginning of this section, or Mama Aruk feared about myself.

In societies where food shortages are chronic threats, the way one eats and does not eat is fundamental for the construction of the personhood, as also argued by Holtzman (2009) in his ethnography of food among Samburu pastoral communities in northern Kenya.

Turkana herders of both genders have frequently and explicitly (and often laughing at my own needs for food) pointed at their ability to abstain from food, sleeping hungry, and yet never failing their daily responsibilities. They often told me that town people were weak and vulnerable because they cannot stay without food—almost presenting a flipped discourse of vulnerability, when we hear about herders drawn into famine camps because of their hunger. For *raiya*, it is more the other way around: town people cannot survive without food, unlike *raiya* who can move with their cattle camps and find comfort wherever they go—also in absence of food. It results that the western paradigm that "no one should be hungry at any time" is a meaningless paradigm in Turkana. Rather, Turkana herders have built a distinctive social imaginary around the ability to "stay-without".

Stay-without

One of the most predominant outcomes of being used to a place like Turkana is to learn to "stay-without" since hunger is a salient part of the experience of being *raiya*. The primary absence to sustain is indeed that of food which, however, also signifies many other lacks (water, rain, permanent houses) and for one's own ability to survive.

Making sure we would eat something in the evening became a daily concern during fieldwork—especially while the 2017 drought progressed, and sun hours would pass entirely

[131] This behaviour is different towards outsiders or in relation to "things" of foreigners (i.e. aid food). In these cases, weeping, begging, lamenting, asking for more, all of this is very common and locally understood as rightful behaviour, part of an optimal foraging strategy (not as a sign of weakness) and subject to different rules and norms than among fellow insiders. That is, begging is external not internal.

without meals. It became an even more prominent concern when I realised that I was the only person really worried about food.

No one of my host families showed any interest during the day about their food intakes. Only a few curious ones accepted my offer of dates and peanuts carried to sustain long hours without food. Most replied it was better I saved that food for me, as they were "used to stay-without". Others ended spitting away the strange food I was offering, with disgust.

At the same time there was humour and interest in my reaction when trying greasy mixes of wild fruits and animal fat (*akimiet*) or caloric residuals from local brew fermented from sorghum and maize (*adakae*) or roasted wild game hunted or found dead in the bush. Food and no-food became a point of interaction.

*

Food is not only a collection of products that can be used for statistical or nutritional studies; "It is also a system of communication, a body of images, a protocol of usages, situations and behaviour" (Barthes 1961). The analysis offered by Barthes on the psychological dimension of food behaviour also applies to the no-food behaviour that I have found among Turkana herders.

The capacity to stay-without is firstly an internal "system of communication" and socialisation. It results from the relationship with the lived environment—one where food is a bet—and from a livelihood which takes individuals along long marches in rough places while living in remote satellite camps where blood and milk are the only diet during dry seasons. It is the result of the "weight-volume-versatility" aspect of the material culture of herders loading their donkeys, discussed in Chap.6, which elicits a system of communication to ask for food—often instead confused for begging.

Many times, we "begged" for food and water while migrating with the livestock. Begging for food is generally proceeded by pointing to one's own stomach saying: *akoro.* A*koro*—the most typical representation of Turkana's interactions with white communities working in Turkana—is a recurrent scream in the streets of Lodwar town. But *akoro*, "I am hungry", is not only addressed at *wazungu* (white foreigners) in the hope to receive some food; rather, it is multidirectional and an expression of a lack which is primarily a livelihood output and originates under nomadic conditions. *Akoro* is different from begging (when internal, among

fellow insiders). It is an expression of ecological situatedness and a relational mechanism of communication and socialisation to ask for food, when being without.

Showing to be able to stay-without also reproduces a "body of images" drawn from the collective imaginary to be *raiya*—a solidarity built around hunger. Among Turkana herders, abstaining from food is not a matter of shame nor a way to hide personal greed, as presented in other ethnographies of hunger (Kahn 1986; Riesman 1977). Rather, it is a distinctive personhood accustomed to hunger.

Lacking the capacity to understand that there is no food, small children, not having yet become accustomed, cry helplessly, while I could observe an evolving attitude towards absence of food with age. And indeed, children typically have not yet fully acquired a status of personhood and belonging in pastoral societies (Salza 2010). As one grows, the cry for food is substituted by resignation towards absence.

> "*These children do not speak; they are still learning to be thirsty*", explained a woman who intercepted my thoughts towards a group of silent children surrounding us during an interview (25/11/2016).

Those children may have been shy because of my presence, and yet with those words the woman explained that older children undergo a sort of enculturation to stay without and sleep hungry as they become adult. I could indeed observe this attitude in many children who, as they were getting more confident with my presence, started showing their skills at herding, hunting, recognising wild fruit, carrying heavy jerrycans over their heads with pride beyond discomforts of a day spent without food. Adulthood was finally presented to me mainly around how one must be able to sustain hunger without lamenting and praising her ability to survive through it. For Turkana herders, the "no-food person" is a cultural mirage to tend to: it embodies the epics of "staying-without". The whole story is simply a way to "digest" no-food, to make no-food the armour of a hero who, one day or another, is going to be dragged in the dust behind a chariot (Homer 1924). To cry for food, to be silent and resigned, to show pride for absence are different stages in the construction of the *raiya* personhood as reproduced in the collective imaginary.

Finally, the capacity to stay-without responds to a “protocol of behaviour” in the context of scarcity. It does not only prove strength against weakness, but also prevents one from falling under the accusation of being a witch and it is an invitation to share.

Hungry people are in fact not only pitied because weak, but also feared because their jealousy can transform into a curse. Stories of jealousy and bewitching permeate daily life of Turkana, especially in new *lolines* where people live extremely close to each other, outside family ties. When food is too little to be shared, it is eaten hiding inside huts to avoid “the bad eye” of jealous people. Most of the herd is kept faraway from villages, to hide the size of the stock to neighbours. Certain valued assets are kept secret from distant relatives. Future plans of migrations are revealed only partially.

Jealous people are dangerous, because they can curse both people and animals and cause bad events in terms of health or wealth. Food lodges in throat. Livestock dies. People get sick. Life pathways get diverted. Cursing can start from a simple feeling. When, for example, people see others eating. They can wish to eat the same. Such a strong feeling is enough to harm those who are eating by making food choke in their throats. Alternatively, it can be whispered in murmurs when neighbours see that others are wealthier. It is a soft rustle, which can take everything away from the wealthy families. Or, it can involve actions intended to harm. Stealing small objects, bones of eaten meat, a chunk of hair, a pinch of tobacco. And bury those items close to targeted families and curse them, their livestock, their properties.

To prevent all that, one never eats in front of others without offering. Heads of households who hosted me and leading profiles during ceremonies I attended were always those ones who ended up eating the least, publicly showing their generosity to feed others with the most exquisite parts of the meal, before themselves. Failing to adhere to prescriptions on food-sharing is arguably the most common source of misfortune and cursing.

Turkana herders deny greed and repulse jealousy—both moral qualities which shall be understood against a socio-ecological context where dry seasons can bring extreme scarcity. Invitation to share and to be strong throughout can thus prove vital qualities. Ethnographers have found multiple entry points for the study of how humans connect food to belief systems (Mintz and Du Bois 2002), I argue that threats of cursing are means to develop self-control and foster a sense of community around sharing and toughness.

In the praise of being able to stay-without, my hosts, however, never missed the opportunity to highlight the appropriateness of a typology of food suitable for *raiya*, which feeds into a collective social imaginary of being *raiya* by eating the "right" food.

"Milk we drink every day, meat we eat every day"

"Milk we drink every day, meat we eat every day" is how one of my host mothers described their diet with a sentiment which an epicurean approach to food would entirely dismiss. And yet this is the food considered most appropriate, satisfying, and delicious (*ebob*)—the most suited for pastoral living. There indeed is a food which was presented to me as the "food for the Turkana". One which satisfies hunger, allows undisturbed nights of rest and days of walking under the hot sun. This food is mainly represented by the pastoralist triad (milk, meat, blood), but not only, as it also includes a large variety of berries, sorghum, millet, wild game, and other supplements.

*

Despite the limited vocabulary of taste, my hosts did not lack sentiment in narrating how they love the time of the year when milk flows from all animals and can be mixed in the *akurum* (calabash). Milk is drunk fresh (*ngakile*), sour (*ngakibuk*), or dried (*edodo*). Sour milk is prepared through fermentation. Milk is placed in a gourd (*etwo*) suspended by a rope, and some cow urine-grains (*ngachoto*) is added to boost flavour[132]. This is then shaken firmly until butterfat (*akidedet*) parts. The mixture is poured into a wooden bowl from which the solid matter is separated using a wooden spoon (*akaloboch*). *Akidedet* is used to make porridge with blood or to add flavour to other cooked foods, or dried and conserved for the dry season. The watery part is instead generally drunk fresh or mixed with seasonal small dryland fruits. Butter can also be heated to further remove water and produce ghee (*akimiet*). *Akimiet* is used for cooking, but also to smear on body and beads as cosmetic, or to soften leather and skin products, or to treat woods used to carve utensils and attires. Oil will last longer than butter through the dry season and is used to add flavour to dried wild fruits and cereals. The solid residue that remains at the bottom of the pan after cooking is called *akibot* or *emur* and contains proteins and minerals. They also make milk powder (*edodo*) by sun-drying milk curds

[132] The urine is tapped, then left in the sun until it obtains a colour called *emug* – "the same colour of strong tea without milk". *Ngachoto* is put in milk for scent, but some respondents also say it is sweet "*ebob".*

on rocks or hides and kept in skin-made bags for the season of scarcity when it will be mixed with water or blood. During the rainy season, milk is alternated with fresh sorghum stems harvested from farms, which is as sweet as sugar cane. Otherwise, sorghum is dried and kept in big sacks made of livestock hides (*ng'ichwei*) for the dry season. Also leaves and edible shrubs which growing during the rainy season, like *ekilton*, are added on the seasonal prevalently milk diet

Livestock is rarely slaughtered unless sick or killed by predators, or when required by rituals and ceremonies, or to welcome visitors. However, meat (*akiring*) takes central stage in debates about loved foods. Skin, fat, humps are generally the preferred parts because they are tasty and fulfilling. The pot and boiled meat belong to the realm of women, while roasted meat over live fire is that of men. Meat is also stocked for the times of need in three main ways. It can be cut in long thin strips which are hung and dried under the sun (in some cases adding salt to fasten the process). It can be cut in tiny ball-shaped pieces which are deep fried and then sun dried (*enyath*). Or it is minced and then sun dried, or stored under oil, or mixed with oil and seeds such as maize or sorghum.

In Turkana, nothing from an animal goes wasted. This includes meat from sick livestock (from diseases which are not communicable to humans) and animals found dead killed by wild predators. As it happened to us while marching in Urum when we encountered the carcass of a striped hyena found dead in the bushes. Or when in the kitchen hut of my host family in Lorengelup we found an unfortunate hedgehog fearfully wrapped on itself and hiding behind a small rock. It was left hanging on the hut's branches for a few hours, and then boiled until its meat became white in colour and so soft to be eaten with a spoon—by children for breakfast. When migrating with Aponopono and their family shoats in Turkana central, the herding boys hunted several squirrels which we roasted at night. And the price of hunted dik-dik in Urum was going down as low as 100 *shilling* (approximately one dollar) during the dry-season. I have found only a few food taboos, and these are not well specified. Indeed, as also reported by Holtzman: "Turkana are well known to eat almost anything: birds, fish, reptiles and all manner of games, donkeys, donkey blood" (2009:95)—following the principle of "better than nothing". In addition, most articles, attires, and home objects are obtained from livestock parts including skin, bones, and horns, or woods from available trees (cf. sec.7.2).

Blood supplements this diet. Especially during the dry season at cattle camps, livestock are bled while kept alive, a practice called *akigum*. It is done through a small incision close to the nose for shoats and on the neck for cows and camels. In this way it is directly sucked and it "*tops up on human blood, like a soda*", as the son of one of my host family tried to explain. Otherwise it is collected in a wooden bowl (*atubwa*) and let clot for some time under the shade of some big tree, to then add water or milk, and sugar and drunk fresh. When an animal is slaughtered for *akiriket* (a meat ceremony performed by men) blood is not wasted. It is let to flow in the open abdomen of the animal after having burnt the hair on fire. Men bend and follow each other to drink it warm, directly form the animal's chest.

Figure 7.1 Drinking blood



All this food is sweetened by adding crushed wild fruit which accompany all seasons. I have found that wild fruit is one of the most crucial components of a pastoral diet—quite differently from mere "coping" as conversely typically framed.

Turkana records present 47 different plants for food and 62 for medicinal purposes (Morgan 1974, 1981); and hunting and gathering wild fruit is an important part of daily living.

Throughout fieldwork, people have never lacked details on the wealth and variety and tastiness of edible wild fruit eaten, which is instead generally dismissed by food studies as "coping food". In Turkana wild fruit represents a daily subsistence food which cannot be ignored, since it also finds a central role in ceremonies like *akuuta* (wedding)—when it is eaten mixed with *atap* (porridge) during the final prayer (*agatha*)—and also in the myth of origin of the Turkana tribe when it parted from their Nilotic allies:

> *"There was a place, a mountain, called Moru a Nayace, which divided the land. Turkana people arrived there originally from Jie in Uganda. They had parted while travelling eastwards to* abor *(satellite cattle camp) but lost a bull and started searching. At the same time there was also a* mama *(married woman) from the Jie who got lost while gathering wild fruits. She arrived at Moru a Nayace where she found a lot of fruit:* edung, engomo, edome, epat, ngakalalio*. Loving such food, she decided to settle. One day, the* mama *returning to her new camp after a day of gathering wild fruit, found bull footprints. She burned a tree and laid the wild fruits to dry next the fire as she was preparing for the season of scarcity. The bull smelled the fire and came close to the* mama *and slept there. The young warriors who were still searching for their lost bull, found the old woman and the bull, living nicely together. There was water and good grass and a lot of wild fruit. Hence, they decided to split from the Jie and stay with the* mama *and the bull in the area now called Turkana*" (Elderly man, FN, Urum, 24/12/2016; cf. also Lamphear 1988).

The striking relevance of wild fruit in my hosts' daily life implies that, opposed to conventional insights, reduction of wild fruit gathering is a progressive sign of hardship and not vice versa as most generally reproduced in the imagination of herders' lifeways by outsiders. Indeed, as the drought progressed in 2017, people increasingly lamented the difficulty to find wild fruit or the discomfort to walk longer distances to find some, compromising the quality (in terms of taste and sweetness) of their diet.

As in many other pastoral cultures, there exist gender and generational roles attributed to food behaviour (Holtzman 2009). This is certainly true among Turkana herders whom spent a long time explaining how parts of slaughtered animals are distributed among family members of different age and gender. However, no-food behaviours (staying-without) are instead transversal. Both genders must in fact adhere to the no-food behaviour and show

adulthood through their ability to stay-without. It is equally masculine and feminine to persevere amidst scarcity and train the youngest to perform alike.

Food studies fall into the danger of adopting western epicureanism lenses of analyses. It is difficult for us to think of no-food, and yet no-food (lack of) plays a crucial role in the construction of a sense of solidarity which cannot be ignored in the study of everyday resilience. Paucity can indeed shape its meaning (De Boeck 1994; Richards 1932). Especially within a pastoral system in which seasonal hunger is common, and in which hunger is not only a problem of supply, or of accessibility, or preferences: it is a quest for belonging and identity.

The form of solidarity built around hunger, food, and no-food behaviour is accompanied by what I have termed "everyday performances of being *raiya"*, which includes dietary but also fashion and other convivial habits discussed in the next section.

7.2 Gendered performances of being *raiya*

There is no feline who doesn't say: I'm beautiful.

A Samburu proverb

ACHILLE DA ROS,

1994.



Beauty.

The concept of a performing identity is drawn from the idea of the *Homo performans* by Victor Turner. The *Homo performans* reveals herself in the "basic stuff of social life" (Turner 1987:13), and indeed, together with the capacity to stay-without, there are other elements of quotidian life which define belonging and personhood among Turkana herders. I conceptualise personhood as relational drawing from Brewer and Gardner (1996). They promote an idea of the social self as a more inclusive self-representation in which relations and similarities to others become central. A relational identity becomes a performing identity when everyday practices of dietary, convivial, and fashion habits define mainstream cultural traits of belonging.

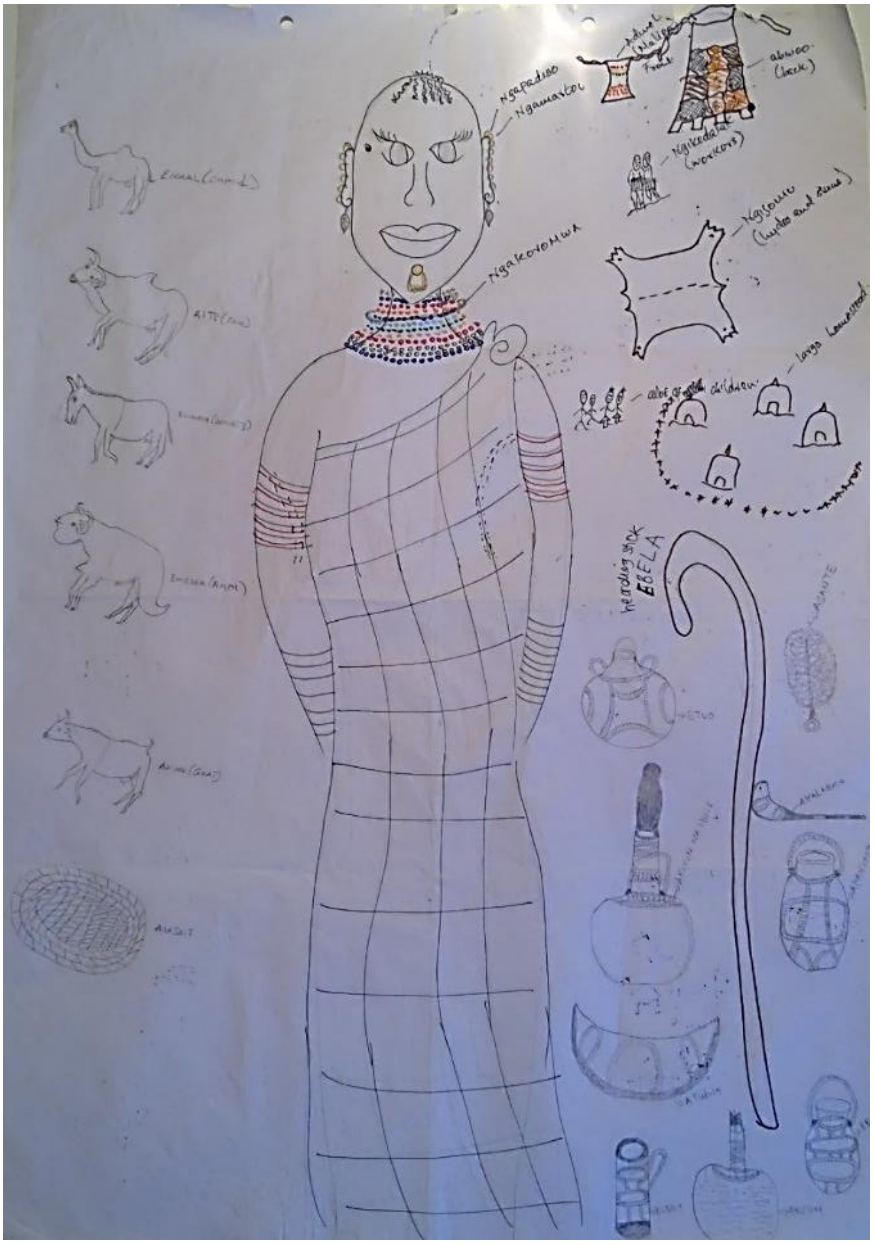
In what follows, I describe those everyday practices performed by a *raiya* woman—for which there is more wealth of details, because of my positionality[133]—and a *raiya* man, addressing their performing attitudes, possessions, code of aesthetics, and norms of behaviour. From this

[133] cf. Chap.3 about my mixed positionality during fieldwork.

analysis of Turkana performances notions of aesthetics, epics, and ethics emerge as salient traits of being *raiya*.

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Figure 7.2 Wealthy Turkana woman



Participative drawing during focus group (Lorengelup stream, 11/2015) – I had prepared only the shape of the person and participants added details in line with the conversation we were having on the representation of a wealthy Turkana woman.

Above, the portrait of a "strong and successful" woman which we drew during a mixed focus group (mixed age and gender)[134] held under the shade of a big *ewoi* (acacia tree) along Lorengelup stream. In this drawing there are many elements which points to the distinctive identity of a Turkana woman.

What strongly emerges from conversations during the focus group is the full participation of women into herding activities, generally imagined as exclusively pursued by men. And yet the mixed group of participants in the focus group soundly praised her ability to "multiply" the number of livestock. She knows how to take good care of her animals, she recognises each single one, and will provide for the weakest. She wakes up when the moon is still high, opens the baby goats, and milk their mothers. The sound of *ngakibuk* shaking in the gourd wakes the rest of the family. She has a lot of livestock covering the "four legs": cows (*aite*), camels (*ekaal*), shoats (*ng'akine*), and donkeys (*ethikiria*); and she walks with a*bela* or *akeat* (depending on her brand/clan), a walking stick used also for herding. She always has a lot of milk in the house conserved from the season of plenty and is very generous with visitors.

She is hard-working and does not like sleeping in the house when men are herding livestock. She fetches water, while gathering wild fruit and checking on the herd. She fetches firewood from *ekadeli*, *ethekon*, *edome* trees to build huts and utensils. Her *akol* (sleeping hut) is neatly woven and the entire homestead is clean and spacious. One can tell she is wealthy from the beauty of her kraal and *alaar* (homestead fences). And mostly, she is tireless, independent, able to help herself and her children, and speaks the truth.

Participants in the focus group were assertive about her qualities of being hard-working, trustworthy and generous, before starting to engage in long discussions about stylistic features of women dresses, adornments, and other articles deployed performatively by Turkana female personas as signifiers of their wealth. Undoubtedly, Turkana women pay extra attention to the refinements of their home utensils, decoration of their body, and dresses.

For example, when I asked Akai, a friendly young woman living in Kambi Lore, to take me around the village showing me places she considered important, she took me home. This was part of the PGIS I did with a young and senior person from both genders in all field sites.[135]

[134] On FGDs cf. Chap.3.
[135] On PGIS cf. Chap.3.

The homestead, as a symbol of women's resourcefulness and their art skills, is the realm around which Turkana women construct their collective personas as queens of the *boma*. Akai praised her crafting ability showing, one by one, a large number of articles which were concealed in the crannies of her huts. And she was not the only one. Many women have shown emotive affection to these objects and responded to my queries about their most preferred object by running in the hut and displaying their favourite ones.[136]

Figure 7.3 Home utensils and articles

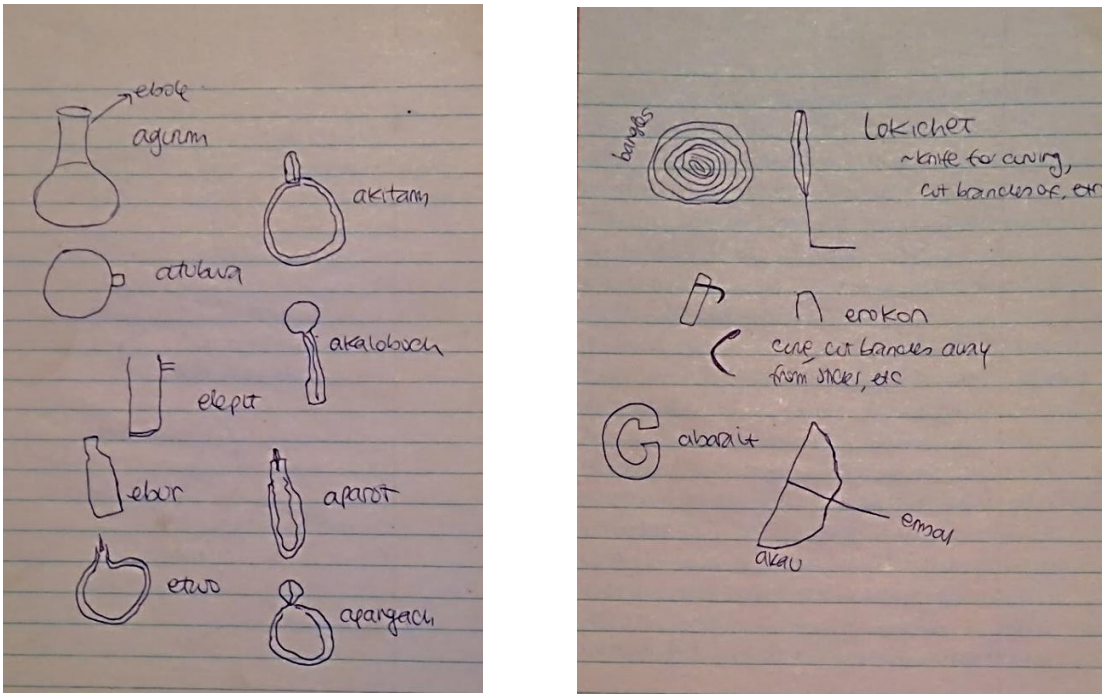


For each article, Akai acted and performed the ways they are utilised, in order to show me the correct use. These objects were shown to me as traditional and therefore something I—outsider—needed thorough explanations of. The institutionalisation of particular appliances as "traditional" expresses a distinctive sense of belonging which automatically excludes all those who instead do not belong and reinforce self-identification as part of a group.

[136] See list in table.7.1.

"*Because some of you* emoits (enemies and foreigners[137]), *when you come here you think these things are dirty and do not like using them. Hence, we will serve you with plates and mugs. But the rest of us, who are used to these things, we serve from these*". Akai proudly concluded the home tour.

Figure 7.4 Raiya's articles



Drawing from kids while watering shoats at the well, Urum, February 2016.

These articles accompany most parts of a pastoral living and are largely produced by women—a fact which further shows the woman's role in the pastoral economy and social life. The articles, showed to me, therefore acquire a double meaning of symbolic participation into distinctive socio-economic and political structures, and practical engagement into the everyday necessities of living.

[137] Among Turkana herders, *emoit* (the enemy) indicate both neighbouring pastoral communities (with long history of reciprocal raiding), and foreigners (mainly wazungu, but not only). Sometimes it is used also in relation to Turkana people (or Kenyan town elite) who have abandoned the herd and settled in town behaving like non-Turkana. It thus broadly indicates outsiders.

Table 7.1 Home utensils and articles

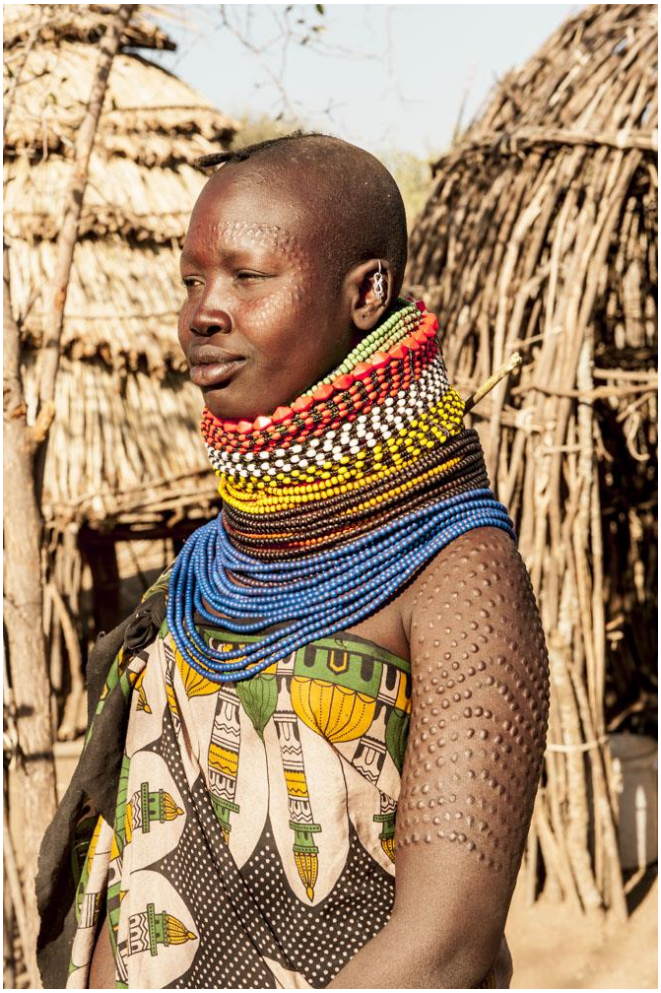
Item	Translation	Example of usage
Agulu	Clay pot	Pot made from clay, used for boiling cereals like maize, wild fruits, etc.
Akaloboch	Spoon	Serving spoon, it is carved from wood into various sizes and shapes.
Akurum (and akurum na ibole)	Gourd	Elongated round shaped container used to store fresh milk, and to start fermentation before being transferred into *etwo*. It is also used for carrying milk while moving around to sell in the villages. The long lid (called *ibole*) is used to serve milk.
Akutwam	—	Round shaped container made from animal hides into a dried ball. It is used for storing liquid fats from animals, for example ghee *(akuring).*
Atubwa	Bowl	It is a home plate/bowl, or livestock drinking trough. It can be carved in many shapes. Small ones serve as plates and the largest can serve as a water trough for the animals to drink water. It is carved from woody trees
Ebur	Container	Used for storing/reserving fatty pieces of meat, to be eaten in the future
Egech	Stirring stick	It is made from fixing one end of a wooden stick to goat or sheep spine vertebra. Used for stirring soup inside a large pot so that the oil does not float, or to stir porridge or blood meals during cooking until it is fully cooked.
Ejomu	Sleeping mat	It is made from skin and hides. It occurs in many sizes but hides of big animals (cow, camel, donkeys) are preferred due to their large size and long lasting.
Elado	Whisk	Made from several tails of a cows, it is well organized to form a big thick tail fixed on a short stick, the handled is made from skin, it is used during traditional dances, it is being wagged or swayed from side to side, or in all directions, during the dancing to move the dances in unison, to give order or harmony to the dancers, to control the pattern of dancers. Mostly used in all celebrations, weddings, village dances, welcoming prominent leaders, etc.
Elepit	Milking can/jar	It can be carved in different shapes, but most often it looks like a tall wooden glass. It used when milking livestock, where initially milk is gathered, before being transferred to *akurum*.
Etwo	Calabash	Round shaped and used to shake milk every dawn, after it has undergone fermentation, to allow milk, its fats, and coagulated particles to break, and mix properly. Clean pieces of rocks are sometimes added to allow the break-down of the fatty layer or coagulated layers.

Women also ally around a distinctive sense of aesthetics. Their beauty was also largely discussed as signifier of their wealth during the focus group in Lorengelup:

> "*She is beautifully dressed, with plentiful beads. When men choose a wife, they look at how she dresses, how she behaves, and speaks to peer, and how she manages her duties.*" (FGD, Lorengelup, 13/11/2015)

The wardrobe of a Turkana woman includes several garments like various skirts and dresses worn differently according to age and marital status: *abwo* and *adwel* (front and back skirt for married woman), *eleu* (long skirt sewed together from multiple hides differently patterned, worn by girls), *egolos* (long front dress)[138]. Time is spent making those dresses unique and beautiful, by adding colourful beads or sewing together hides from differently coloured livestock. Many times, I assisted to the slaughtering of a goat under direction of the one of the wives because of the colour of its skin, imagining the glamour dress she would afterwards obtain.

Figure 7.5 Turkana young woman



She has beautiful beads (*ng'akoromwa*) of which she chooses her favourite colours and wears *alagait* (necklace for festivities) during ceremonies. If married, she carries a copper or aluminium ring (*alagama*) above her beads to mark her status. She smears her body and hair with clay, *aruak* (fat from cow stomach mixed with coloured clay) or burnt cow hair mixed with butter cream (*akidedet*) or fat (*akimiet*). She also removes two front teeth and scarifies her body (*ng'ageraan*) around shoulders or eyes to enhance her beauty.

[138] See more in table 7.2.

Clothes, together with artisan jewellery, earrings, and other ornaments become a symbol of cultural belonging around which gendered solidarity is performed.

Table 7.2 Attire and adornments

Item	Translation	Example of usage
Abwo	Back skirt	Half skirt made of animal hide in a specific pattern, with hanging extensions on the sides. It is worn to cover the back, stretching from the waist to the feet.
Adwel	Front short skirt	It is worn at the front by women, stretching from the waist up to just above the knee.
Akoloch	Calf teeth	Calf teeth used as ornaments worn by ladies around their head
Aruak	Animal fat	Solid fats; most fats come from animals' stomach or other parts where fat deposits occur (under the skin, around the kidney, heart, intestines, etc). Turkana women and men mix Aruak with the red clay (called ochre) and apply on the hair.
Aruba	Belt	It is worn around the waist by ladies, it is like a big belt, and it is commonly used during dances. It is made from skin and patterns of small beads.
Egolos	Long front dress	It is made of animal skin and covers the entire front part of a woman, from just below the beads and stops just below the knees. It is normally decorated with beads or multiple patches of skin.
Ekude	Headband	It hangs on the head with small decorated beads up-to the face.
Ng'akoromwa	Beads	Beads arranged in a thread and worn around the neck.
Alagama	Wedding ring	It is large wedding ring made from copper or aluminium wire; it is worn around the neck on top of the beads as a symbol of a married woman. It can be silver or golden depending on the age group.

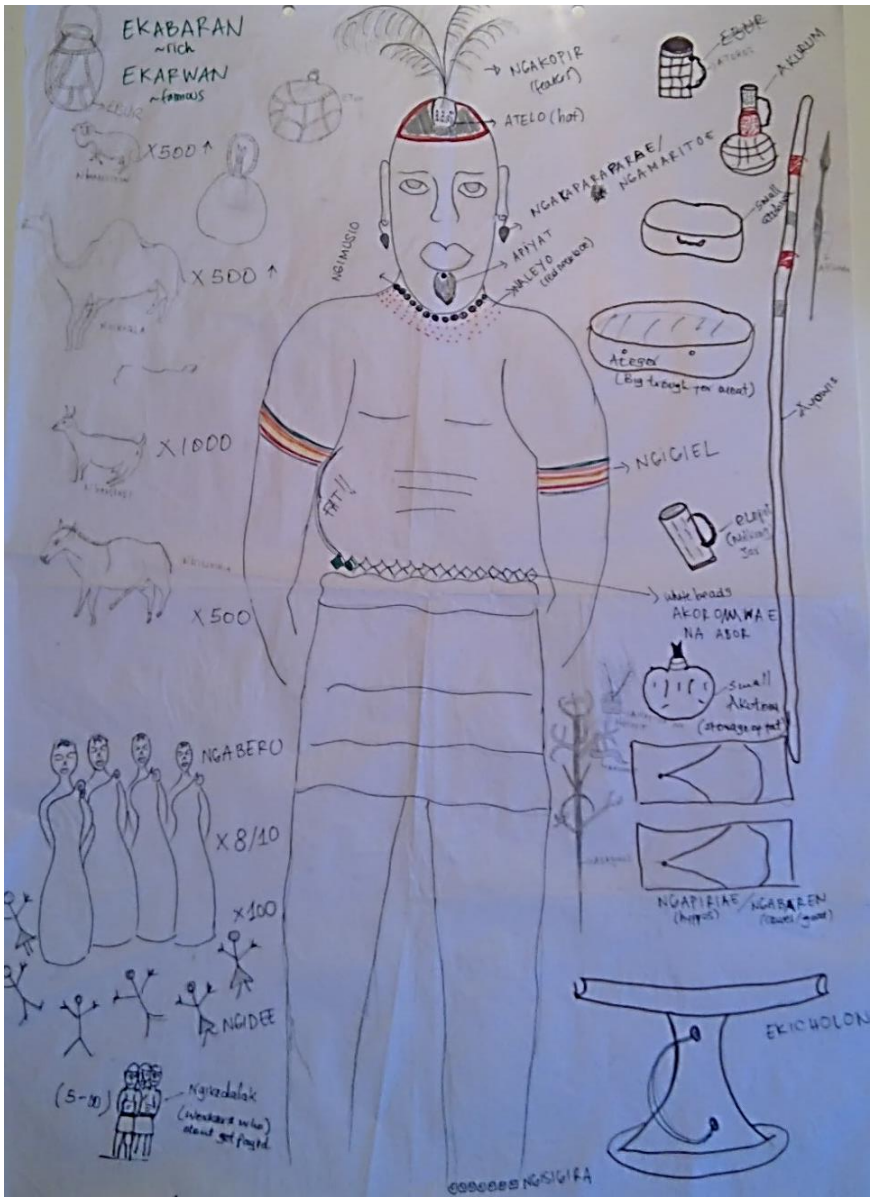
A rich woman, according to the focus group participants, has a lot of all the above: home utensils, skins and dresses, jewelleries and adornments, and livestock. A rich woman has also workers whom she can instruct during the day and monitor their activities and her many children will not need to work as much as their poorer peers. However, lacking young age training when their mothers will die, they will find themselves falling in poverty—as participants to the focus group in Lorengelup agreed.

*

Together with the participants of the focus group along Lorengelup stream, we started talking also about "wealthy" men (cf. Fig.7.6). A strong man is laborious. His toughness, trustworthiness, knowledge of animals and surrounding environment are praised among his best qualities and reasons of success. His home is lively, with many wives, children, and visitors. All are happy and given plentiful of good food: sour milk, ghee, dried meat mixed with

berries. Like women, he also spends time on his looks. Many young herders migrating with livestock carry, within their limited luggage (cf. Chap.6), a mirror and a comb (cf. Fig.6.3).

Figure 7.6 Wealthy Turkana man



Drawing from focus group, Lorengelup stream.

His most representative attire is a colourful e*chuka* (Maasai blanket), tied around the waist or around shoulders during cooler hours. Its multiple uses, for clothing, sleeping, or as a wrap to carry *ngitit* (acacia-pods) for shoats, is a manifesto for the practical implications of being *raiya*.

The *echuka* is generally matched in colour with the hat and beads he displays in plenty. He walks with naked thorax, or he wears collared shirts. During ceremonies he wears a hat with ostrich feathers, carefully protected from dust in a self-made wooden container (*atoroth*)

during the rest of the year. He never parts from his *aburo* (herder staff) and *ekicholong* (head stool)—the look of which is also an expression of his skills at crafting as they should be smooth, straight, and strong. And hence he spends time in their maintenance and takes good care of those articles. Next to rubbers and plastic armbands, he wears *abarait*, a circular knife used to cut meat. He has many wives and children, and workers who herd his livestock of which he has plenty of all species. He has a favourite animal, generally an ox or a ram, about which he performs songs to praise its beauty and strength.

The relationship between men and their favourite animals signify large part of their pastoral identity. Many hours around shallow wells in Urum were passed praising qualities of favourite animals, pointing at their horns, or big humps, or their beautiful skin colour.

For example, Nawuoi, a young boy in one of my host families in Urum, was responsible for the family cows, at the time of our visit. Next moon[139] he will be moved by his father to look after shoats.

He explained that being with the cattle was more a strenuous and demanding task than herding shoats. However, this was the time of the year he loves the most. Cattle give pride and respect, and he is allowed by his father to choose one as his own to grow and take care of. As he is pointing to his favourite one approaching the well, he stands up and starts singing, while others around the well echoed.

*Ooh, iiii yeaaaah (*solo*)*

*Ooh, iiii yeaaaah (*choire*)*

Erithia

Eeya ngalima lomeria

Elim e ebua

Lomeri ngorokoo

Elim ngithepionoo

Emalaa loa Epetet ee

[139] On lunar calendar see Chap.4.

Kimala ekitoa angakinei aa Kaile

This song is about his bull which has dots like those of a leopard. It is big like a mountain compared to the cows of his friend Kaile, which next to his bull look like goats. His bull is like a lion, a leopard, a hyena; all feared animals to which his bull compares fiercely. If the bull is under a tree, it will be the first thing to be seen from faraway by his friend Epetet who was sent to see the bull.

Lobokoera ejie ka ngimanikoo

Igooro ngithulua ang'opikinete

Lobokoera utuirianikin nyutaako

Lobokoera utuirianikin nyutaako

The song praises the fertility of the bull since its young age. The bull has few eyelashes around the eye and normally faces down searching for its eyelashes. It has big bones in its body and a huge hump.

Athur ngimoe katokanga

Ngesi aramunie ekarisia lolimaa

Even if this bull is raided by the enemy, Nawoui would be able to follow its footprints till the horizon and beyond, attack the enemies, and return the stolen bull back home. Together with the bull's qualities he is also praising his qualities as a warrior.

Also pointed during the focus group in Lorengelup, a successful man's wealth can also derive from raids. And indeed, a successful man is also a skilled warrior. Turkana manly solidarity builds around stories of raids, gun battles and epic chases of stolen animals. A fierce fighter is praised in songs and in night stories. His bravery brings him fame and prestige. Much of the pastoral identity performed by Turkana herders is constructed around raiding, which therefore is more than a means to acquiring cattle for weddings, securing new resources, or expanding territory, as typically described. Rather, it plays a role in the performance of being *raiya*. Such identity as warrior, and his reputation as fierce fighter, is rendered visible on the warrior body by a set of marks cut over his skin in order to cleanse out the blood of the enemy which entered the fighter's body in the moment of death.

Gendered performances of being *raiya* (both masculine and feminine) are infused with everyday practices of attention to livestock (as manifested in the affection felt by women and men to their animals), aesthetics (as shown by the attention to beauty and attires employed by both Turkana men and women), and epics (as shown by the warrior profile aspired to by young men and general capacity of both genders to sustain hardship).

Additionally, through the portrayal of wealthy Turkana herders—a distinctive moral personhood has also emerged, one which entails diligence, hard work, thorough knowledge of the environment, trustworthiness, and generosity. Descriptions of wealth are thus woven into a moral economy (Anderson and Broch-Due 1999), and a variety of key ethical values are central for the construction of *raiya* as moral personhood. Both profiles of a successful woman and man show a moral code implicit in being of successful *raiya*. Laboriousness, pride and dignity, integrity, hospitality, generosity, and responsibility. It is around "aesthetics, epics, and ethics" that "basic stuff of social life" (Turner 1987) of being *raiya* are organised and a collective identity performed—an ideal type in the social imaginary.

Such ideal type acts as threshold of reference. Turkana language does not have a specific word to say poor— as reported by Müller-Dempf (2014): *ekechodon* (temporary lack of animals), *elongait* (no relatives), *ekebotoonit* (no animals). Poverty is explained to outsiders (so that we can understand) by subtraction of what it means to be successful, and it entails rotten morals which break costumes, bring disrespect and transgression. As reported by participants at the focus group in Lorengelup:

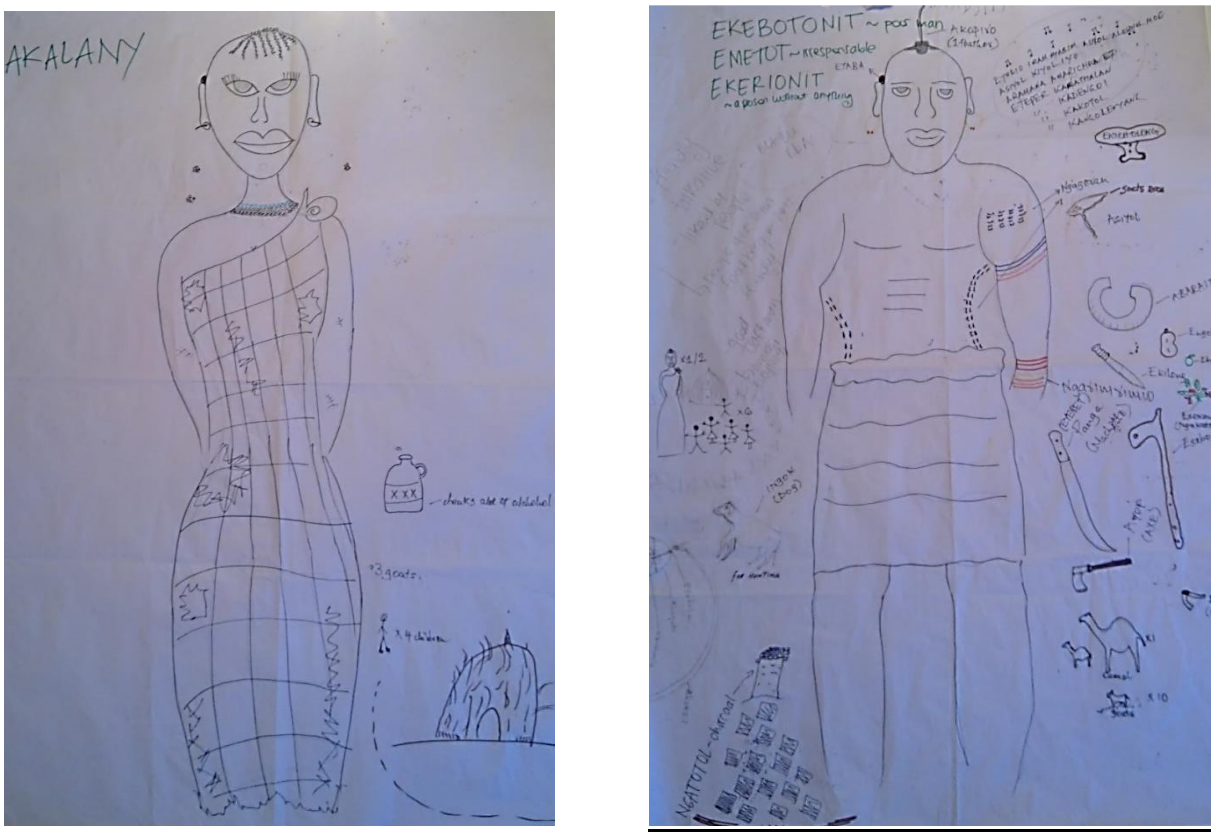
> *A poor woman wears cloths which are worn out and her single child is malnourished. She is poor because she is lazy and does not do much during the day. Her children do not have a father. She wears acacia thorns as earrings, as she cannot afford beads and bracelets. She is dirty, she forgets about hygiene and flies follow her. Her house is messy and her stock very small. At most she has three goats, no donkeys, nor camels, nor cows. She begs, steals, and drinks. She does not have love for herself and cannot be helped. If one tries, she will take advantage to steal from the supporting household.*

Described in these terms, a poor woman appears as hopeless and helpless, stuck in conditions of poverty without room of manoeuvre to uplift her living standards. Perhaps her greatest conviction is to be "lazy" and thus incapable to extricate herself. "Queen of the homestead",

her material wealth is visible by neighbours and passers-by. Conversely for men, whose main symbol of wealth is given by the size of the herd, there is never full accountability of their success because they can always secretly keep their livestock faraway. Consequently, a poor man is seemingly always given a possibility to redeem his status, and thus is slightly described with more sympathy by the participants at the FGD.

> *He has only one wife and few children. A small stock and dogs can be found in his house. He is very irresponsible, cannot be trusted and does not take his duties seriously—not even looking after his stock that gets lost or raided frequently—and this being the major reason for his poverty. Nonetheless, he is very friendly and talkative. He knows how to impress people who will offer him support. As long as he is not lazy, he can make his way out of poverty because of his good skills at crafting articles which he can sell or finding wild fruit he can stock to sustain his family through the dry season, and good attitudes towards learning new things.*

Figure 7.7 Poor Turkana woman and man



Drawings from the focus group along Lorengelup stream.

Traits of aesthetics, epics, ethics as well stoicism and toughness through hardships, as unwritten scripts of being *raiya*, were presented to me quite definitively to the extent of reaching stereotypical characterisation of themselves, especially when in opposition to urban counterparts: town dwellers. As they convey notions of membership and belonging, collective identities encompass endless comparisons between in-group and out-group characteristics (Brewer and Gardner 1996) and these dynamics inevitably foster processes of othering (Gonzales 2015). Membership into a group implies self-stereotyping by the individual member, and the emphasis on the "we" category through specific collective characteristics implies "the need to belong" to a certain group (Brewer and Gardner 1996) as opposed to another.

In the next section I explore how *raiya* see town dwellers and also how they cross the divide of their reciprocal constructed identities in the social imaginary—that of being *raiya* and town dweller; this is not want a comparative analysis of *raiya* vs town, but a representation of the "social imaginary" as narrated to me by Turkana herders, and its navigation.

7.3 Identities in opposition

Anything that belongs to the locals is better to be left for the locals;
what belongs to the foreign home is better to be left to the foreigners.

Male elder,
Lobei, 16/02/2016



The guys of Lore centre. Kambi Lore/Turkana Central. October 2015.

Everybody is laughing loudly. They are laughing at Ejomu when he exaggeratedly jokes, "*you would die of starvation if you travel with her*!". Everything started when people amused themselves by seeing me and my assistant, Ejomu, drinking a whole mug of tea with salty water and fresh goat milk, in one single sip. It was mid-day and such cup of sugared tea contained our first calories of the day.

People who were hiding from mid-day sun with us inside someone's hut could not believe a town girl (and *muzungu* too) would drink goat milk with such ease. Beyond towns and road settlements, only the strongest can possibly make it—while "*town people fear sand* and *eat children's food"*. *Raiya* believe town people would not cope with hunger and thirst and would let themselves die craving for food if they lived as *raiya* do. Sentences like "t*hey went to sit and earn*"; "*they are lazy and do not walk*"; *"they only worry about food";* proudly framed the conversation around our sugared tea, broken by sonorous laughs.

In this section I present the social imaginary of being a town dweller, as reproduced by *raiya*, to highlight the existence of a flipped narrative of vulnerability. I will also show how the lived dichotomy between *raiya* and town dwellers is reproduced in narratives and memories of *raiya's* collective past, but also how such dichotomisation is not as strongly performed in the everyday, in which practices of appropriation, adaptation, and imitation show instead great responsiveness to change and the fluid character of constructed cultural identities.

Town dwellers

Raiya markedly distinguish themselves from their urban counterparts. Differences in behaviour, taste, dietary, fashion, and convivial habits become expressions of different social worlds which *raiya* use to position themselves with respect to the broader society. In the following pages I reconstruct some conversations held about town people and urban spaces from the imaginary of *raiya*. Towns are seen as spaces of absence and deviation.

*

Town life is firstly imagined as a life of absence. Absence of livestock, sense of community, and one's own purpose.

> "*If it is that difference you needed* (I was asking about the difference between pastoral and settled life)*, what I forgot to tell you is that I am not missing anything. This is the*

issue of traditional way of living. I have all the traditional things including akurum, etwo, akutwom*, I have animals. Someone who lives in town is the one who knows the absence and wants to have a chair, a permanent house, buy land* (a plot)." (FN, Lorengelup, 19/01/2016)

Even though family separation and mobility have always been part of mobile pastoralist livelihoods (Ahearn-Ligham 2016; Chatty 1996, 2013), absence, that "which is not there" and that "which is missing" (Bille, Hastrup, and Sørensen 2010; Meier, Frers, and Sigvardsdotter 2013), is learnt and known in settled spaces like towns and road settlements—as Akamaise clearly points out in the extract from our conversation about town life reported above: to fill-up such absence people buy, own, and build.

From the perspective of *raiya*, the first absence experienced in towns is that of animals. Animals give food, money and thus provide a double access: to rural spaces where they belong; to towns as converted into means (fungible value of livestock). Livestock gives also much more. It gives respect, honour and the right of belonging to a community, which town counterparts lack: "We *can celebrate weddings with animals* and *have the right to participate in* akiriket". Animals, in addition, provide good and meaningful food: "Y*ou can enjoy the good taste of fresh milk"*. Food eaten in rural areas is tastier, healthier, and makes people stronger. Town people must struggle if they wish to eat it, while "*we* raiya, we *are our wealth, thanks to our animals"*. Livestock in these contexts has a dual value: material and symbolic (Chatty 1996). The latter is systematically ignored by development planners who insist on the material aspects of resilience. Nonetheless, it is precisely the latter which plays a more significant role for the wellbeing of pastoral societies signifying their independence and sense of purpose. Livestock is also essential to welcome visitors and build one's own reputation of generosity.

In towns there also lack vast spaces as people build their homes crowdedly. Life is expensive because "*you pay almost for everything*": you pay for rent, you pay for food, you pay for medicines; "*you even pay for toilets!*". People in town are idle, lazy, bored. Livestock keeping is recognised as a hard task, but also a beautiful and fulfilling one which "*keeps awful thinking away"* and helps find solutions to problems on your own with no need to "*wait for salaries*".

Perhaps the biggest absence in town is one's own purpose. "*People in town only worry about food and money. In town you cannot get animals. You work to have money to buy food. This is*

all you care about". This inevitably leads to losing dignity and self-respect. It leads to a tame life where "*there is nothing* (important) *to do*". Settled life is described as a life where you "*sit and wait"*, with no real goal or important tasks to accomplish. "*Real life is when you build your house, shake your milk and eat the product of your animals*"; which is not possible in towns.

The "paradox"[140] of absence in town is signified by "*things"* owned to replace what is lacking: animals, milk, fat, free space, purpose, and feeling of control over one's life. When all this will disappear, "*when the world will disappear, then we will squeeze next to the government, but space will be too little*"— Akamaise continues. Town life is imagined with fear, as also shown at the end Chap.5. Indeed, to *"have a chair, a permanent house, buy land (a plot)"*, is not an easy task, as Akamaise concludes her reflection on settled life, reported also in Chap.5:

> "[…] *the person who has not gone to school, the survivors of the new changes of life, nothing can suit them in the new life in town. Those who are not learned (those who did not go to school) grow thin in town*."

Life in town is also imagined by *raiya* as a life marked by "deviations"—deviation from the path of tradition; deviation of grass that no longer grows; deviation of relief aid. Towns are places were tradition, grass, and relief are diverted and taken by elites.

> "*Those places* (towns) *are cursed! Everywhere now is cursed. Cursed to alcohol. Cursed to women. Cursed to modern dresses. We forgot values and traditions in the steam of boiling liquor.*" (Elderly man, KI, Akudet, 14/11/2016)

In towns tradition went lost, forgotten in a cooking pot of alcohol: clothing changes, language change, habits change. Alcohol distracts men (and women) from their jobs and often this raises fights and there often are conflicts in towns. Town people are therefore not to be trusted, as well as their leaders who keep on offering promises, the implementation of which is rarely seen (cf. sec.5.3). *Raiya* also believe that "p*eople in urban places dress poorly*". Many explained to me how trousers, shorts, and modern clothes are refused by *raiya* because they are not considered appropriate.

"*Moral decadence in towns is high, for example town people drink excess alcohol and don't follow the norms of tradition*". They do not have a sense of respect towards elders, and do not

[140] In the geography and anthropology literature of absence, absence is considered to have paradoxical qualities referring to the "presence" of absence in people's lives.

adhere to costumes of tradition. They do not know how to treat visitors and are generally lazy and irresponsible—lacking moral personhood and toughness typical of *raiya*, who instead can walk long distances, stay without food and water in order to carry out their daily tasks.

Town people have no knowledge about and care for the environment. Town is dirty, polluted, noisy, crowded, "*and if we kept animals there, they would be eating paper and old clothes, instead of grass."* Many approach town people, their habits, and their costumes, as causing the degradation they can observe over their land. Towns have diverted grass.

> "*Prolonged drought I think may happen because of urbanization. In the past there were no vehicles and modern things, rain was in plenty and there was grass—now there is no grass.*" (Young man, LQ, Ngiipae, 14/11/2016)

> "[…] *pollution from towns prevents rain from falling and grass from growing*." (Young man, LQ, Kaikol, 17/11/2016)

Finally, in towns, centres, and along roads, relief aid (in all its forms: food aid, medicines, cash) brought by the government or by foreigners (development/humanitarian organisations) ostensibly reduces, little by little, until nothing reaches the targeted beneficiaries in rural areas. People who do not live in *lolines* walk long ways during distribution days and often go back empty-handed: transportation people, distribution people, chiefs, shop keepers, villagers—are some of the people blamed to hold parts of aid distributions; in some cases, selling it back to locals or using it for their own livestock.

The dichotomisation between *raiya* and town dwellers emerges even more strongly in a context of fast changing socio-economy and politics (cf. Chap.2), in a world which is practically "full" of urbanities—one which sees pastoral livelihoods turning into a marginalised majority against expanding town elites (Rodgers 2018). The construction of a collective identity is thus used to position oneself within a broader society which is fast changing especially since devolution, oil discovery, refugees' operations. In this context, a process of othering in relation to growing urbanities is also reproduced in the polarisation of memories skewed towards a plentiful past compared to a shameful present of decay and scarcity, in which food becomes a "locus of historically constructed identity" (Holtzman, 2009). As such, taste is an assessment of the social world which manifests through food (Montanari 2006).



Hands after the slaughter of a bull, Urum, December 2016



Hands while cleaning maize from stones, Lorengelup, January 2016.

Memory is the "process of making sense of experience, of constructing and navigating complex temporal narratives and structures and ascribing meaning not only to the past but to the present and future also" (Keightley 2010:56). Some scholars have shown food as a valued artefact for inner sensory memory (Counihan and Van Esterik 2013; Monsutti 2010; Sutton 2001). And indeed, with a good dose of nostalgia, through continuous swings between an imagined or real past and present, Turkana herders have reconstructed their past around the distinction between a happy past of plenty and a shameful present of poor food and dependency brought by town dwellers, and outsiders more generally.

Years of plenty

> "*I was born in* ekaru amuje kimet*, the year to eat fat"* remembers Alaar, one of the elders in the village, while walking through Lore plains.
>
> *"It was a time of plenty, animals were big and healthy and produced a lot of fat. That's why we called it the year to eat fat. All this land you see here around us, this was all grazing land. Those years we were eating a lot of meat and there also were many* alogita (age group dances) *during which we were given livestock to slaughter and celebrate. I met my first wife in one of those dances. She was beautiful, with red ochre on her body and beautiful beads. During the dry seasons* ewoi *(Acacia) would still be full of* ngitit, *out of which our animals survived and never suffered. And we were drinking their blood without fear of making them weak. When it rained, we planted millet and sorghum along Turkwel River which we would stock for the dry season and eat together with animal fat and blood. All food was so delicious and filling. And it was so much that people did not fight. Many were crossing these lands when it rained, and we stayed together in peace because we were all Turkana and there was enough for everybody. I remember eating meat soup every day, and milk. People enjoyed the life of milk. We did not know about relief food. We were depending on our own. We did not know about money. Our animals were enough. Women were wearing only animal skin dresses and men were fierce. That time was a time of happiness. Children were happy and listening to the elders. Our food was so satisfying that we could stay the whole day looking at our animals without being disturbed by hunger.*" (12/11/2015)

*

Years of plenty, as it emerges, are not only valued for their nutritional intake (plenty of meat, meat soup, fat, blood, milk, and wild fruit), but also—and mostly—for the emotive and social effects these years have on people. Years of plenty were years of happiness when people could dance without worrying; when people were full of energy; they were strong and proud as they did not need to be helped—but "*depended on their own"*. Social friction was minimal. Many have told me to have met their partners in years of happiness during village dances at the light of full moons, or during migrations with livestock through new places. Plenty of food induces good behaviour, fosters a moral personhood, and leaves people time to rest from stresses.

Properties of pastoral food are narrated as creating inherently better behaviour. It is generally more satisfying and is conducive to a morality of being which is compromised by the expansion of the "enemy's" foods. Hence, a good past of plenty is marked in contrast with an impoverished present when food is lacking, and behaviour has degenerated. Their living has transformed into mere surviving when they have been made slave to their stomach due to food aid, and general developments.

Years of shame

> "*And now we live in these years of shame*" Alaar continues after my exhortation to tell me how those years of plenty compared to today.
>
> "*Almost everything is now lost. There is no grass, no livestock, no* ngitit*, no rain. Now we are eating the government* (what the government brings). *We are eating ground maize and salt, and our body grows thin. We have stomach-aches, and adding salt is burning our body. When we drank blood our body became strong, we ate milk and got fat; when we ate meat there was nothing else to add to your meal. The oil we are using now leaves a glue at the bottom of the bottle. The same happens in our stomachs!* Mandeleo *(development) brought us shame. Children have back pains like old people and will remain with appetite in the heart*".

A whole set of somatic meanings clustered around notions of health is attributed to "new" foods (Barthes 1961), which spread through relief operations and *mandeleo*.

> "*Current food is full of diseases, like* edeke moruariiwan (stomach pain)." (Middle-aged woman, FN, Nangorichoto, 15/11/2016)

> "*All body parts are in pain. When we eat animal products our body becomes light and one can even decide to run. But nowadays after that we have eaten these new foods, we have known their bad effects and we refuse to eat them.*" (Middle-aged woman, FN, Lorengelup, 16/01/2016)

These were some of the words spoken about "new" foods of which maize is the most signifier; perhaps because the most disliked, or because the cheapest to purchase, or the cheapest to distribute for relief organisations—and hence the easiest to find in someone's home.

Maize is not liked because it is associated with diseases, which were absent in old foods, and because it is tasteless—not like eating meat when "*there was nothing else to add to your meal"*. It is also extremely difficult to cook, it takes long hours and yet remains "*hard as stones"* (and it also comes with stones in the relief bags, carefully removed one by one as a newly introduced and time-consuming everyday practice).

> Akamaise: "*Someone put* githeri (beans and maize) *on both sides of the mouth, tries to chew but it spits maize out."*
> *Nawoi: "That's why the goat is following her like a dog!"*
> *Lopwenya: "It has become the goats that are feeding with that white maize, just like a bird.*" (FN, Lorengelup, 16/01/2016)

Maize leads to compromise one's own identity, even that of goats—now acting like dogs or birds. Indeed, new foods entail several changes of alimentary structure and family social organisation. Cooking for longer hours implies reducing time fetching water, wild fruit, firewood. Eating hot food implies reducing distances from the homestead to be served. And certain cooking utensils have come of use also at cattle camps where men are nowadays "*entering a woman pot*". With these words Lopangach—my host father in Lorengelup—meant that, nowadays, herding boys have learnt to cook like women; while in the years of plenty there was no need for those cooking practices because blood and milk were enough, and men could remain men—and not act like women.

"New" food has thus not only brought nutritionally less valued intakes but also a whole set of moral degenerations that bring shame, as echoed in an endless litany of laments constantly shared with me regarding current years of shame: women are promiscuous because of alcohol consumption, *ngimurok* (seers) reside in towns and become greedy,

children lack respect to elders, men are no longer fierce. All behaviours which were absent in the years of plenty. Additionally, years of shame changed practices of hospitality: "*in the past when visitors came, we would give them milk, animal fat or even meat! But now we just stay staring at them.*" (Male elder, Ngiipae, KI, 19/11/2016)

These statements sounded definitive. A *raiya*, a real Turkana, repels "new" foods brought by the enemy (outsiders) and declass the social world they have brought through their foods to a world of general decay. And yet, these two imagined worlds appeared more intertwined than stated in these accounts.

One can imagine the confusion I felt every time I was asked to tell the government they needed more food aid; that all "*good things follow the road, and here we are left fighting with thorns";* or that they wished to have permanent houses, a business, and money to buy food; or my disorientation during the fights I saw around food-aid distributions to grab more maize, the same maize so much disliked. During these episodes, I assisted to the origination of counter-narratives embedded in the implementations of new practices and traditions (Hobsbawm and Ranger 1992), which linger upon a representation of the self as "pure" and detached from "*things of town and modernity*", but that are in reality embedded in daily practices which draw from both worlds—that of *raiya* and town dwellers—indicating a broader process of social, economic, and political transformation and the coexistence of fluid identities.

Ambivalence and fluid identities

Anthropologists have brought evidence for the discontinuity between self-descriptions and social behaviour as being the norm rather than the exception (Santopietro 2015)—an incompatibility which Turner calls "social drama" (Turner 1987).

Mainstream narratives, such as individual sense of solidarity with a certain social identity, do not necessarily correspond with the same individual's everyday practices (difference between ideal and actual behaviour). Greater variation and heterogeneity emerge within everyday performances of being *raiya* beyond its dichotomisation against urbanities as reproduced in the "social imaginary". By "stylistic playing", as reported by Rodgers' study of Turkana herders (2018:149), or by reproducing slow social change, as argued by Holtzman (2009) about

Samburo identity's adaptations to development and modernity, *raiya* are also incorporating foods and traits representative of their urban counterparts.

However, I like to emphasise, such contradictions found in people's narratives do not imply those accounts shall be discarded. Rather, this shows how reformulations of the self and collective identity undergo multiple, at times contradictory, processes (Gonzales 2015). Contradictions, between principles and practices, are not mutually exclusive. Rather, they show the coexistence of multiple identities and an underneath fluidity of social worlds—which are not organised along dichotomies but navigate across imaginal social boundaries. And this, I argue, is a salient dimension of one's own resilience.

In what follows, I describe some contradictory elements found in daily practices of imitation, appropriation, and adaptation; and provide my interpretations for the existence of these ambivalences: responsiveness to change and fluid identities.

*

The pastoralist diet (expression of physical potential and beauty, independence and integrity, as described above) is now at odds with an "identity built around maize" (Holtzman 2009:1). Ground maize-flour (*epocho*) and beans have become a very common staple food and are found in most homesteads. Grains are not entirely new to Turkana diet, having always played an important role in exchanges with agriculturalists, but the variety of white maize made available through the provision of relief food and the spread of small rural shops, has instead emerged in the last 60 years and has entered daily and ritual food practices. For example, *akuuta* (wedding ceremony), one of the most loved ceremonies, concludes with a big pot of *epocho* (mixed with wild fruit), signifying the incorporation of new foods within "traditional" practices.

Tea and sugar have been so much incorporated into daily practices, to have now acquired a status of "traditional" food despite being born in faraway plantations and equally imported as other new foods.

Following this, it is not rare to find salt, vegetable oil, and *Royco* (stock cube) and, in some families, even rice and spaghetti—even though these remain treated mainly as children's food. I have met mothers walking miles and miles in order to reach the closest road settlements in order to find rice, sugar, and milk powder for their youngest kids who "*are*

refusing our food and eat only government food". And all herders also depend on purchased food, regardless how much they dismiss it.

While I was migrating with the young brothers and their shoats in Turkana central plains, we were hiding our bags of maize and beans in holes dug in the ground to prevent squirrels from stealing them from us. And we also diverted our route to restock our provisions from a small rural shop known to be outside someone's hut. But mainly we diverted to charge their mobile phones through solar panels leant over the shop's walks, a service which costed them 20 *shilling* (approximate 20 cents). We watched music video and listened to the phone ringtones at night while lying over a carpet of shrubs and sand, next to an improvised *anook* (kraal).

Contradictions from declared hostility to what comes from towns and daily practices of imitation and incorporation of town habits and articles is not confined within food practices, but affects all aspects of social life as western items are replacing "traditional" ones. In the following picture (which was already shown in Chap.6 to demonstrate the lightness and versatility of herders' possessions), I now want to highlight another point. Among the few objects the two shepherd brothers were travelling with, they included a pot and a discarded metal with a wire as holding ring used to cook maize (as well as a plastic bag which contained maize and beans).

The young herders explained that they had bought the pot at a local market and they were showing pride to have found the discarded metal next to an abandoned building site. In this way they have incorporated into their daily practices articles from a repertoire which belongs to their urban counterparts, and with distinctive resourcefulness they are weaving together two counterposed lifestyles in their "social imaginary". The same approach to recycling was often explained to me about abandoned plastic pipes once meant for some boreholes or irrigations schemes and never brought to final implementation. That rubber is re-used in multiple ways including blade covers, small tobacco containers, armbands, and other decorations.

Figure 7.8 The herders' possessions



Turkana herders have also incorporated items into their wardrobe and accessories, in addition to the attires and clothes described in sec.7.2. Skirts, trousers, and shorts are not rare to see even in remote bushlands, as the catalogues of products sold in rural shops display. Many women have asked if I could give them my bra and have admitted not to use "*real clay from mountain feet, but a coloured paint bought in shops.*" (Young woman, FN, Nakwapua, 07/02/2016).

Another striking example of outfits which do not suit a *raiya's* closet was the adornment shown by Lokir during the wedding of his son. He wore his favourite collared dark green shirt and exhibited long and well cared white feathers over his head. A black *elado*, from the tail of an ox on his hands to shake during *edonga*. Around his neck he wore a fuchsia garland possibly found abandoned on the ground at the end of some formal other event. It made me smile, but I soon realised how resourceful such a gesture appeared to other attendees at the wedding. The disdain to urban life was overcome with the appropriation of attires and articles felt glamourous—like the improvised scarf worn by Lokir—and practical—like the discarded

metal used by the shepherd brothers. The capacity to select specific traits from the culture of *rayia's* urban counterparts "removing the meaning conveyed and replacing with their own" shows that the constructed "social imaginary" remains fundamentally open, polythetic, and with "fuzzy borders" (Piasere 2009:91).

Figure 7.9 The fuchsia garland for akuuta



All this shows features of constant reformulations of the self and the malleability of "traditions" and social positionalities as well as the possible harmony between combinations of narratives and practices, starting from food practices. Food becomes an arena in which identities are negotiated in their complexity (Monsutti 2010) and shows the coexistence of multiple narratives.

The emphasis on a *raiya* diet and the omission of other types of food which are not perceived as strictly *raiya* reinforces the idea of a cultural identity, a sense of solidarity around one's own imagined and performative living: a nomadic lifestyle where food available originates only from cattle, camels, and flocks. Claiming that one disdains foods from outsiders is a clear identity message, a performative resistance to expanding urbanities. Hence, on the one hand,

maize represents all which is lost: a nutritionally superior diet; a culturally greater people, tougher and with moral behaviour. Through this perspective *mandeleo* (development) is seen advancing together with poverty and tasteless food; foods which signify cultural decay eroding aspects of moral personhood (Holtzman 2009) as represented in the memories of "years of shame".

However, on the other hand, these changes are also seen as sign of progress. A second parallel narrative was proposed to me throughout fieldwork. Thanks to these new foods people nowadays no longer die from hunger. It is easier to obtain without endless struggles of following livestock. "*We can rest from all these movements* (migration with livestock)." (Middle-aged man, FN, Kambi Lore, 15/11/2016).

I explain these counter-narratives and ambivalences on the basis of the inherently mutable character of "tradition", a word invented by anthropologists (Hobsbawm and Ranger 1992), and on the skills to navigate the complex "social imaginary", weaving dichotomies together.

First, being in the midst of broader social, economic, and political changes one finds herself grappling between her ideal behaviour and a changing landscape which imposes new practices. With this perspective, I confirm Turner's et al. idea that self-categorisation is inherently variable (1994), and highly dependent on contextual shifts (Brewer and Gardner 1996). The *raiya* identity is adaptive to changing conditions as their way of interpreting "modernity". Pfaffenberger, cited in Chatty (1996), says: "every human society is a world in the process of becoming in which people are engaged in the active technological elaboration, appropriation, and modification of artefacts as the means of coming to know themselves and of coordinating labour to sustain their lives". What appears as "spontaneous change" in any society is often the result of limited but continuous and ongoing experimentation (Chatty 1996:126).

The second explanation I propose is the fluid and malleable character of social identities. Being *raiya* is more flexibly performed in the everyday in which multiple identities coexist and can be activated at different times. The ability to navigate the social imaginary corresponds to Brewer and Gardner's theory, of relational identity, (1996) by which the "we" category, *raiya*—in this case—coexist with one or several self-categories and can all be used at different times, creating flexible self-representations; a useful and skilful ability to navigate socio-

ecological and economic variability and the corresponding creation of heterogenous spaces (cf. part I). The *rayia* category can thus be better described through a "fuzzy epistemology"[141] (Piasere 2009)—a categorisation which is not based on the principle of contradiction nor on bounded socio-cultural groups, but as a kaleidoscopic set of cultural traits that, on a case by case basis, come together differently, creatively borrowing features from their urban counterparts when these are perceived to be in their own interest.

Through the ambivalences and contradictions presented in this section, Turkana herders have shown both a great responsiveness to changes in the surrounding social landscape, including the growth of non-pastoral populations (Rodgers 2018), as well as the fluid nature of their being. Admittedly, this is easier said than done. As argued by Ferguson, people can surely shift among different styles as long as they acquire the ability to do so competently (1999). He is in this way recognising the difficulty of altering identities, and indeed many have complained the difficulties of town lifestyles and the new things they would have to learn. To recall Akamaise's feelings about towns (cf. Chap.7.3):

> "[…] *the person who has not gone to school, the survivors of the new changes of life*, *nothing can suit them."*

However, regardless how difficult this is, I believe such flexibility of identity proves useful in negotiating relationships among dichotomies in a changing and variable social landscape. The ability to negotiate one's own identity gives Turkana herders larger access in a highly variable lifeworld. As argued by Rodgers (2018), the resilience of pastoralism does not involve the persistence of its forms, but the ways it re-articulates itself in the face of contemporary variabilities (cf. also Chatty 2013). Turkana herders' lifestyle and livelihood are not tragically disappearing incorporated in the corrosive hands of modernity; rather they are creatively re-working their values, sensitivities and self-representations to make a meaningful living. As argued by Chatty, there is little room for supporting theories of conservatism to change (2013). Conversely, Turkana herders show a flexible identity which engages with forms of development and "modernity" while maintaining a sense of solidarity around certain distinctive traits of food, no-food, fashion, and convivial habits. That is, in the negotiation of one's own identity, Turkana herders show intrinsic mutability but also a degree of resistance

[141] Thanks to Stefania Pontrandolfo and Marco Solimene for this insight.

and never to be free from "themselves"—as alleged in a song by Bob Dylan: "Are birds free from the chains of the skyways?".

Discussion: resilience and mobile identities

In this chapter I explored notions of belonging, reproduced and experienced by Turkana herders, as a renewed site for the investigation of the meanings of resilience.

Relying on ideas of performance by Turner (1987) and of relational identities of Brewer and Gardner (1996), I explored how Turkana herders present themselves in comparison to their urban counterparts, subverting dominant narratives of vulnerability—which most typically describe herders as vulnerable to hunger and food security. Conversely, *raiya* have built a sense of solidarity around their own hunger. Belonging is expressed in the form of toughness, endurance, and ecological-situatedness, reproduced in the everyday through "gendered performances" around norms of aesthetics, epics, and ethics of being *raiya*.

Food was the opening analytical lens for this chapter because I was constantly reminded by my position among Turkana herders as the one in need of food. This positionality was at odds with the development discourse of pastoralists' vulnerability to food insecurity—standard component of resilience programmes in drylands (cf. Chap.1). The complex performances of hunger I could observe in Turkana complicate the relationship between food insecurity, hunger, and vulnerability. Being accustomed to the place, "having gone through" and having learnt to "stay-without" are the primary elements in the creation of a collective identity which I argue as being a tool of "inner resilience".

However, in the lived everyday, the opposition between *raiya* and town dwellers is far less sharp. As shared with other nomadic pastoralist groups, *raiya* "continue to change, to adapt, and at times to spontaneously adopt techniques, technologies, and ideas thy perceive to be their own interests" (Chatty 1996:190). The initial impression of a homogenous and united community of rural herders was contented by daily practices of imitation and appropriation of articles, attires, lifestyles found in urban centres. I have explained this observation by resorting to the notion of "ambivalence" proposed by Holtzman (2009) as a symptom of broader social, economic and political changes, and through the logic of "fuzzy epistemology" which explains the fluidity of one's own "being". A mobility of being according to evolving

situations is a mechanism employed to navigate socio-economic variabilities and different cultural environments.

By navigating variability, through the "immediate" (cf. Chap.6) and the "social imaginary" (this chapter), Turkana herders—*raiya*—helped me broaden an understanding of resilience by incorporating its socio-cultural dimensions, systematically ignored by the development sector (perhaps because too difficult to observe and measure), and by disrupting categories, labels, and identities. Mobility is the response I learnt with my host families to a mobile lifeworld—for it to never close its borders—imaginal, physical, perceived borders, because to be mobile in its many manifestation (quality of space, something people do, and quality of identities) is to be resilient.

Conclusions

> *I am back in Lodwar. Swamped by all pending tasks, closing greetings, and attempts to keep transcribing up to the last page of the last diary when we still were waking up with the sound of bleating lambs. Emotionally overwhelming. Tiring. Difficult in the tedious logistics of the everyday, especially when the count-down to go back home starts. In town I feel like time is eating space, or vice versa. I am still waiting for the transcriptions from the first six months of fieldwork. Eregae kept on promising he had it ready, just always misplaced: in his friend's laptop, his mother's USB, at home. "I am walking to give it to you". My last night. I am leaving tomorrow morning. This time I booked a flight to Nairobi. Too tired, a luggage too heavy for an overnight bus. Eregae is walking to my place to give me the USB with all his transcription, and I am waiting sitting on my doorsteps. The sand is colouring the wind in a red tonality. I wonder if it is a spirit. I am still sitting when night falls. Eregae switched off his phone. "Stop being blind!" tells me my hungry flatmate dragging me to dinner. My farewell dinner. I keep on calling Eregae for the whole night. The phone is back on only at 4 AM, but I hang-up: what is the point now? I wake up early (if I slept at all), at 6.00 AM I am knocking loudly at Eregae's door. He lives with his mother, his wife and his daughter. I wake everybody up. He slouches along the yard. "I have not done it".*

My host mother in Lorengelup, Akamaise, now would say: "*My story ends here*". My flight to Nairobi was obviously horrible. Nonetheless, in retrospect the difficulties in the relationship with my research assistants were not only illuminating of research practices, but also opened the opportunity for me to search for other collaborators who could help with the transcriptions and created new possibilities, a new line in the thread of my own livelihood-net. It made me more resilient.

In this conclusion, I bring together the empirical chapters of this thesis and their theoretical container: resilience, drylands, and pastoralism. While offering a summary of each chapter, I weave the thread of my arguments, which cumulatively, chapter after chapter, offer a revision of the notion of resilience towards the incorporation of mobility as a fundamental new lens of

analysis. I highlight the contributions of this thesis and also look ahead, considering possible future research stemming from this study.

*

This study set out to explore meanings of resilience in pastoral settings from the point of view of Turkana herders—whose insights are generally unheard in the development/humanitarian sector. The fast rise of resilience-labelled programmes (especially since 2010-11 after the HoA crisis) bypassed several steps for a critical understanding of the term and arguably has not led to innovative programming in the field (cf. also Brown 2011). This is particularly so for the case of drylands and their inhabitants. Perceived as harsh and hostile, drylands do not easily welcome outsiders who, "feeling out of place", generally prefer the comforts of their offices in capital cities. As a result, a reiteration of outdated assumptions and "old myths" continue to be found in development reports and approaches, currently expressed in terms of "vulnerability" (a language dear to resilience-thinking) of pastoralists in the face of climate change, droughts, loss of common lands, encroachment of grazing areas, and the like. In this thesis I showed that "resilience-building" is thereby proposed to overcome the perceived vulnerability of pastoral populations allegedly linked with a threatening environment (socio-ecological variability), a liable livelihood (unsettled and against modernity), and conditions of risk (conflict, diseases, food insecurity). This threefold approach to resilience-making ties back to a broader trend in the development sector, mainly preoccupied with three areas of interest (environment, livelihood and bodies) through programmes which often articulate around three components, as I analysed and discussed them: landscape, lifescape, and bodyscape. I summarised these components in Chap.1, as follows:

1. Protection of the environment and provision of environmental services (landscape component);
2. Promotion of sustainable livelihoods and provision of productive assets (lifescape component);
3. Safety of bodies, provision of social protection services, and security nets (bodyscape component).

Translated into the "development narrative" for pastoral contexts, I critically interpreted these three components in terms of three "pastoral problems", as often and narrowly referred to by outsiders:

1. Pastoral environments depicted as a static nothingness, with scarce resources and remote locations, the variability of which is fundamentally a problem;
2. Pastoral mobility and livelihoods perceived as a liability;
3. Pastoral risks (conflict, diseases, food scarcity).

Drawn into what I suggest to be a "paradox of representation" which divides scholars and practitioners on the level of resilience displayed by pastoral populations across the world (for scholars, pastoralists are one of the most resilient groups, for practitioners they are among the most vulnerable ones), I showed how the threefold framework of resilience applies to the everyday life of Turkana herders, from their own perspective, responding to the research questions:

* What can we understand about those components of "pastoral development" currently discussed in the international development regime under the label of resilience, by switching perspective and following pastoralists lived experiences?
* How does the new understanding of resilience emerging from this change to a localised and experiential perspective relate to the contemporary ideas of resilience in policy, practice and scholarship: to what extent does it challenge, endorse or even revolutionise it?

Having presented various approaches, definitions, and critiques of resilience in both scholarly and development debates (cf. Chap.1), I then show how ideas of resilience are applied in East Africa and in Turkana County most particularly (cf. Chap.2), and what methodologies and methods I adopted for this study (cf. Chap.3). The empirical chapters follow and guide the reader towards an understanding of each component of resilience interventions, separately. Learning from the experience with my hosts during fieldwork, the structure of this thesis does not strictly unfold linearly (one of my first critiques to resilience approaches, cf. Chap.1) along a temporal procession scale (made of bouncing back, or forward, stages); rather, each chapter focuses on one aspect of resilience, flipping the dominant perspective (that of outsiders),

away from the offices in capital cities to give voice and central stage to the main protagonists of this study: Turkana herders.

This research offers two main theoretical arguments about resilience, respectively reflected in it the two parts of this thesis: (1) resilience is a matter of perspective—a quest of sight—and can only be understood locally from the point of view of the studied actors, in this case by "seeing like the herder" as opposed to the bird's view adopted by practitioners surveying the landscape; (2) resilience entails motion within motion, a way of navigation through a mobile social, ecological, economic, and cultural terrain; it lies in the possibilities that movement opens. Following from this second point, we can say that resilience is probabilistic and not deterministic. In this, one cannot obtain the same output at given starting or initial conditions (deterministic approach), an uncertain truism alleged by development programmes that aim at enhancing resilience through, for example, the provision of certain productive assets (i.e. cash or livestock), or through the creation of "optimal" (for whom?) conditions (i.e. drilling of boreholes, or building fixed social infrastructure). Rather, resilience entails a theory of probability in function of complex forms of variability, emerging from both the "immediate" (the contextual everyday) and the "social imaginary", thus producing outputs that are themselves subject to or involving chance variation. Any action that limits variability leads to the "clotting of space", to use an expression I referred to in Chap.5, or to the creation of "borders", physical borders (villagization) or borders of identities (labels), ultimately breaking relations and reducing opportunities, which, as far as I could understand in the field, Turkana herders consider a time-space oddity. On the contrary, resilience grows out of the "meshwork" of probabilities emerging by means of mobility—while catching the aspired "prey" (to apply the analogy of the net used in Chap.6).

Chap.4 and 5 address the first "pastoral problem", that of the pastoral environment and its variability (linked to the landscape component of resilience programmes) and show the importance of "seeing like the herder" to *see* the inherent nomadism of space. I divided my reflections about the first pastoral problem in two chapters in order to extend the literature on socio-ecological variabilities (the U-turn in ecology), to also include forms of socio-economic and political variability which equally shape the understanding of space and influence decision-making. Both chapters demonstrated the existence of "another spatiality", an alternative science which draws from the "poetics of herding" and a "sense of place" based

on seeing, experiencing, and perceiving. Both chapters reflect on the level of engagement of Turkana herders in their space, contributing to its production, destruction and reconstruction.

In particular, Chap.4 contests three recurrent assumptions about drylands: (a) static nothingness, (b) with scarce vegetation and water resources, (c) remote. It argues that, while "seeing like the herder", space moves through continuous reconfigurations of the lived space-timescape across coexisting socio-ecological niches. I showed that resources are available and co-produced by the joint action of biotic organisms (humans, livestock, wild animals, insects, and many more operating in the territory) and abiotic factors (rain, water, soil, and the like) moving along with a mobile landscape. In this way, resources are more than mere "things" out there at people's disposal, but are the product of a relationship (cf. also Krätli 2017). Important questions are when, where, for whom, and for what purposes resources are available—namely, relational questions of accessibility which do not only depend on physical dimensions of space (landforms, terrain, distances), but also climatic (rain), ecological (water and forage), territorial (rights), and social dimensions (human relationships). These questions are shared, discussed, contested, hidden, and negotiated among herders through their wayfaring across the territory as a process of knowledge creation and transmission to new generations. My data bring evidence of how generated knowledge about the lived space is encoded in the environment which, in turn, becomes available also in symbolic terms—perceptually—through shared beliefs, use of amulets, and ritual life. In this way, Turkana herders mark their belonging to a territory which acquires a wider significance than mere remoteness. Remoteness itself is used by Turkana herders as "grass-root resistance" against forces of modernisation, drawing from local knowledge—an alternative science which delves into a distinct "sense of place" emerging only from within, seeing, experiencing, perceiving.

Chap.5 unveils how Turkana herders apply the same logic of accessibility (reachability, appropriation, and use) to resources other than vegetation and water. Drawing from the example of village creation (and destruction/abandonment), I show how Turkana herders are attentive to variations in the socio-economic and political landscape and correspondingly make and unmake their lived space through lines of connections and what I termed "pulsations". To their eyes, any external intervention in their land (food distributions, electoral campaigns, borehole drilling, and more) represent a form of variability, following the same logics of unpredictability than rain. In response, Turkana herders opportunistically build and

unbuild *lolines* which are popping-up along improved roads and telecommunication infrastructure and contribute to the overall nomadism of the lived space. From these observations, I challenge dominant views about nomadism and sedentism and I show that settlements are not the end of mobility, far from it. They are a form of dynamic space-configuration that continuously takes new shapes out of multiple pathways followed by Turkana herders, in and out. In this process, *lolines* are used as "resourceful dumps" where people considered unable to live the pastoral hard life (elders and children) may be put in order to intercept, capture, and signal forms of social, economic, and political variability. Until space is allowed to pulsate, it remains alive. Problems arise when space *clots*, constrained by fictional borders imposed upon by outsiders in the attempt to stabilise the provision of resources. In these circumstances, the failure to meet prospective development (promised by development actors and governments) transforms into malcontent (and worse), shared among an increasingly isolated population as relationships across a large-scale ecology and economy fracture.

The two chapters together offer a renewed lens to view at drylands. The understanding of pastoral resilience in relation to the lived space should convey an appreciation of its mobility as *seen* from within. The nomadism of space translates into a different understanding of place, one in which the material, social, and symbolic landscape is part of the lived experiences, and makes uncertainty a way of life—a possibility for resilience in the options it opens, when allowed to flow. Failing to see this mobility, ignoring or obstructing the possibility of space to move, by imposing borders or permanently stabilising some of its features (permanent boreholes, permanent irrigation, permanent food distribution, and the like), may in turn create what Scott, presenting at the annual lecture of the Oxford Department of International Development (ODID) (2019), called "iatrogenic diseases": diseases generated by maltreatments. It may lead to the "clotting of space", to a dying space, while frustration and malcontent rise (and worse), and as people's capacity to *see* decreases—so does their resilience.

In response to the two remaining pastoral problems, that of livelihoods perceived as a liability (lifescape component), and that of their conditions of insecurity, particularly focussing on issues of food insecurity (bodyscape), I insist on a different understanding of daily life in drylands, neither as a struggle for existence nor the constant quest for food, but in terms of

"navigation". Asking what people do to respond to the mobility of their lived space, and drawing from the framework of "navigation" proposed by Vigh (2006) as a social practice which entails movement through, within, and along an environment which is itself in motion, in part (II) I argue that mobility, according to field narratives I gathered and practices I observed, is the only response to mobility. Mobility emerges as "something people do"—a quality of their behaviour, of their understanding of space, part of their decision-making, expression of alternative forms of sociality, and imbued in people's motivations, aspirations, and identities.

In Chap.6, I explore the ways Turkana herders move across environmental, social and economic domains, showing complex forms of mobility (beyond the typical search for pasture and water) as contingent responses to the "situational" or "immediate" surrounding. I evidence the relevance of mobile practices in the everyday and in the reconstructed lifeworld (metaphors of mobility in healing procedures and local perceptions of diseases and sickness), despite discursive constructs of praised "immobility" (i.e. ideas of dangerous spaces and dreams of permanent habitation with personalised water taps). Adopting Ingold's view of life as a "phenomenon of lines" (2011), with this research I attuned a different approach to livelihoods—one which exits the "boxes and arrows" (of the typical SLA) to weave all lines traced by Turkana herders along their movement. The emerging image is a full geometry of intertwined lines, points, surfaces—a "livelihood-net" of experiences, relationships, and movements which is resistant, permeable, deformable, transportable. Understanding how relationships are built through movements that connect people and places, which pathways are followed and by what motivation/influence, which constraints and difficulties are met, all this brings a more nuanced understanding of people's livelihood at a wider socio-economic scale. Resilience emerges from the relationships woven by moving while navigating complex variabilities and determining the degree of economic integration (competition and cooperation) and optionality that people manage in their life-course.

In the final empirical chapter, I expand the analysis of Turkana herders' navigation skills beyond the "situational" to also cross the "social imaginary", as reproduced in the presentation of dichotomic identities: that of Turkana herders—*raiya*—and their urban counterparts (town dwellers). I explore and show the ways in which the *raiya* identity is built in terms of belonging to a livelihood group (rural herders), but also entailing a lifestyle, certain

codes of aesthetics, and ethical behaviour—the model of a "hero", a "survivor" in a fast deteriorating society corrupted by rising modern forces emanating from urban centres and a growing urban elite. Turkana herders challenge standard ideas of what it means to be hungry; not as a problem of supply or demand and preferences, but as a quest of identity. During fieldwork with my host families, I could observe both their toughness, inurement to "stay-without", and observance of customs but also the creativity and malleability of their identity by means of appropriation and imitation of elements from the urban world and adaptation to changes in society. Resilience rests in both: people's capacity to capitalise their marginality, forming solidarity through a shared identity and its everyday performances (a component of "resistance" of the self is necessary for a theory of resilience), and in the ambivalences and contradictions managed in the everyday, symptomatic of the skills to incorporate new elements as situations evolve and change. Field data reported in this chapter served the critical task of shedding light on the importance of "inner" elements of resilience, still dominantly invisible to the eyes of development/humanitarian practitioners despite the growing emphasis to move towards integrated socio-cultural and ecological approaches. Building resilience is thereby not a simple technical question. It implies bridging materialistic and constructivist accounts and incorporating in the analysis shifting subjective and collective cultural frameworks to achieve a meaningful comprehension of people's lives and choices.

Theoretically this study has sought to contribute to debates and discussions about resilience in drylands and pastoral settings through *the* lens of mobility, in its many manifestations (as a quality of space, as something people do, and a question of identity). By this, I do not only challenge the dominant negative characterisation of mobility as seen by outsiders (socio-ecological variability and liable livelihood, creating conditions of insecurity) but I go as far as proposing mobility as part of the solution, an inseparable part of life, an asset and source of strength, structurally part of the behaviour of and in drylands—and perhaps beyond. Despite the link between mobility and resilience being little explored (or even resisted by imposing barriers to movement), there is a growing recognition that conditions of "forced immobility" (Lubkemann 2008) can further deepen destitution, vulnerability, and insecurity (cf. for example Hammond 2019). I contribute to these literatures, by arguing that resilience rests in the possibilities for mobility, and this, in a nutshell, is the main contribution of this thesis, emerged while discussing resilience from an underexplored perspective: the everyday of nomadic pastoralists. Mobility is therefore not only a cultural narrative of nomadic lives, but

a daily practice performed for making something out one's own everyday life, expressing alternative forms of sociality, enabling socio-economic opportunities, and showing kaleidoscopic identities imbued in people's own motivations, aspirations and possibilities.

In a worldscape (the maximum *scape* of this thesis) of perpetual movement, incessant migrations, and increasing uncertainty (Scoones 2019), the understanding of mobility as a tool to manage variability is crucial. Key to the understanding of mobility is the role it plays for those who practice it as everyday livelihood. It thereby seems justified to begin this task by learning from nomadic pastoralists how to navigate and negotiate complex forms of variability and uncertainty. Further research stemming from this study can therefore be directed towards the understanding of current mobilities that shape our globalised world, navigating contemporary forms of uncertainty, hinging upon what pastoral populations can teach about *seeing* a world in movement and moving along. A pastoral perspective on global mobilities and uncertainties necessitates rethinking expertise, opening to diverse and more local knowledge, and an entirely different approach to governance in being more flexible, kaleidoscopic, creative and adaptive.

Through this lens, this thesis also challenges the way we think about drylands, and their inhabitants, as well as about development interventions in those environments. Firstly, it contributes to revisit standard conceptions about dryland environments, in line with the U-turn in ecology. By employing the perspective of Turkana herders, how they see, experience, and perceive their landscape, it is possible to gain a different view, and change the way problems are presented and interventions envisaged by "seeing like the herder".

Secondly, it contributes to the understanding of failures of development interventions in drylands. The main argument is that there is a tendency to look at desertscapes from a distance and not experiencing them. Though the scope of this thesis is not to give policy indications, but rather to understand the Turkana's perspectives on their lived environment, livelihoods, and bodies, it remains possible to advocate for a different "development story". From my hosts, I learnt that there is never one single *erot* (footpath), but these are many, intertwined: encounters along a path can bring significant deviation. Similarly, development shall no longer be seen as a singular pathway. There are no standard programmes that can be promoted, everywhere the same, as it emerges from a conventional approach to development based on homogenised procedures regardless of the context and its unique specificities. The

acknowledgment of this fundamental point implies to focus on the methodological architecture of development-making before counselling about what is to be developed. Attention shall shift from the *quid* (a question of what) to the *modus* (a question of how). Seeing, hearing, feeling the territory and talking with the people who inhabit the territory, before acting upon the territory.

A final contribution of this study is towards two strands of academic literature: on Turkana and on resilience. In a fast-changing context under development impulses (devolution, oil industry, refugee operations), old ethnographic monographs no longer capture current trends and social representations. Aligning with a number of studies now being conducted in Turkana[142], I bring a different sight to the contemporary lives of Turkana herders and a broader comprehension of their lived environment, their livelihoods, and their identity—in the hope to help outsiders understand a little better the places where they plan to bring transformation and "modernity".

This thesis also contributes to the resilience scholarship. The "making of resilience" has become a popular objective in the development and humanitarian sector. Nonetheless many questions remain open, as it emerges from the pages of this thesis. In the words of Korosteleva: "Are we sure we understand the concept of resilience well enough, to make full use of its arresting potential?" (2019:2). Additionally, another question arising from this research is: should resilience be associated with emergencies and crises? And finally, can it be "engineered" externally, through the promotion of solutions to local problems by outsiders?

All these questions demonstrate not only that the concept of resilience remains today very vague, but also that despite having a long history (cf. Chap.1) it remains somehow nascent in the development sector; still in need of finding its way to concretely change dominant paradigms of international cooperation.

Without adopting a critical understanding of resilience in practical terms, the status-quo in development operations will be maintained. Operationally, this implies turning resilience into a risk-management exercise (conventional DRR or DRM), characterised by a strong duality between the "insider" (whose problems need to be solved) and the "outsider" (proposing external solutions), continuing to deny agency to the local, thus negating the very meaning of

[142] Only from the UK: 4 PhD theses from Oxford, 1 from Cambridge, 1 from LSE, 1 from University of Reading.

resilience. Under these circumstances, the obvious question is: why resilience? Why bother with setting up a whole new language, without then following with substantive changes in the architecture of the development sector?

Indeed, resilience has strongly being criticised (cf. Chap.1) and many have suggested it should be abandoned. Nonetheless, it occurs to me that this still is way beyond the horizon. A "post-resilience" era is seemingly far ahead of us, as resilience continues to dominate policy discourses. Thereby, as discussed during the panel "Pastoralists and Resilience: rethinking the inside and outside perspective of the pastoral communities", at IUAES 2019, we are left with three options:

1. Accept resilience dogmatically and apply it to various cases;
2. Criticise resilience entirely in stark opposition to policy makers;
3. Recreate and reconceptualise resilience, as something more significant, poignant, and adaptive to the lives of the people we are working with.

Through the empirical chapters of this thesis I have demonstrated the capacity of Turkana herders to appropriate elements from their urban counterparts' lives and transform them into something new which made sense to them, for their needs and desires, into means of innovations and recreation. We shall do the same for a new model of international cooperation and development. I thus suggest the third option is the task ahead of us, and this thesis illuminates some pathways; I highlight three main ways: First, a reconceptualization of resilience in the development sector implies gaining new directionality (inside-out) and new purpose (for the "good life" as locally specified). It implies rejecting "engineered external solutions" to recognise capacities and capabilities that already exist and need to be encouraged. It implies understanding resilience as a "long-term self-organizing process of capability-development" (Korosteleva 2019) rather than just a system's quality(ies) needed for survival, moving beyond the "shadows of the crisis".

Second, following from the findings of this thesis, dimensions of identity and space emerge as critical for a reconceptualization of resilience in the development sector. The notion of the social imaginary of the *raiya* and his/her capacity to stay without food, signifying toughness, endurance and embeddedness in the environment was powerfully shared with me during fieldwork (cf. Chap.7). Food insecurity as a synonym for vulnerability was turned on its head

and explained as a marker of belonging and sign of strength. This distinctive collective identity (solidarity) can be found in most territories where mobile herders live. There is therefore an urgent need, in the development sector, to recognise the process of creation of identity as a strong quest for respect, dignity, and self-existence (not in subtractive terms), as I have shown in Chap.7, while it is often confused for traditionality or worse: begging for what is perceived, by outsiders, as lacking (food, infrastructure, services). There is a need for a new international cooperation that is not limited to providing for material needs, but it is also able to read historical processes and their cultural dimension during the process of transferring capitals and know-hows.

In this thesis, I have also shown the importance of the complexity of the lived space; outside safe hotel rooms and conference halls—symptoms of a model of international cooperation that is de-territorialised (Cerghini and Nardelli 2008). This entails proximity: being-there, being closer to people and places. It also entails creating the conditions to listen and observe; opening hearts, ears, eyes to be able to receive a storyline which surprises us, which could not be imagined before establishing a relationship with the territory. That is, the capacity to be surprised every day, to truly listen to the stories of the territory and flip dichotomies, like progress/conservation, modernity/tradition, and pay attention to local knowledge, passed from generation to generation and adapted around new observations about an ever-changing landscape (cf. Chap.4)—the true heritage of a territory.

Third, as it emerges from this thesis, the reconceptualization of resilience for a new model of international cooperation and development requires some reflections about mobility. This research has shown that mobility cannot be stopped. Not in a normative way. There was no pre-judgment on mobility prior to fieldwork. It was not a hypothesis to be tested, nor the way I imagined I would have come to frame an alternative resilience theory. Indeed, I have also shown the tension that exists between mobility and immobility and the contradictions in the practices of mobility and the desires to settle, have water-taps in the house, and never be hungry again. My approach to mobility is not normative, but empirical showing that mobility continues regardless of any attempts to contain it. I have shown that mobility is an integral part of people's and places' lives, and it cannot, shall not, be stopped. I hence now propose that the development sector should fully embrace this key finding in its core structure and

endorse the use of mobility, in its broadest meaning (as a quality of space, something people do, and an aspect of their identity), in three main ways:

1. By making mobility the outcome of development programmes, something to promote and protect in the lives and places of beneficiaries; and in so doing, challenging centralised planning, mega and fixed infrastructure, and invasive interventions which most typically characterise the architecture of the development sector.
2. By making mobility the vector of distribution and the core axiom of development interventions by moving along beneficiaries and by avoiding incentives that privilege fixity to movement, forecasting to real-time management, equilibrium to variability.
3. By using mobility to define a new governance of development; a mobile governance inherently flexible and polythetic, never favouring a single interlocutor (chiefs, seers, representatives of communities) but hearing the many voices that inhabit a territory, and respecting the diversity of point of views, needs, and aspirations. A mobile governance gives time to the exploration of the territory and to the building of relationships. In a way, what I am aspiring to is a form of "slow development". A mobile governance indeed requires time. Time not as mere economic factor under the ruling law of projects (for which development and cooperation exist only in the timeframe of a budgeted year and at the rhythm of projects, proposed one after the other). Time as the possibility to know each other, to pause and reflect, to build relationships, and acknowledge the beauty of sitting to talk, to travel and explore the territory and to follow the uncertainties of encounters along the way. Development should be set in motion: to continuously change vantage point.

A concrete utopia then: international cooperation and development as relationships in which it is not only the local partners and beneficiaries to change, but all parties change (the alien 2.0 which I became by nurturing differences, convergence, and mutual empathy—cf. Chap.3). From my positionality during fieldwork I learnt the critical lesson that either we change together, or we do not change at all. The same applies to the development sector, to the fight against stereotypes and ideas that the western world is superior, still so much imbued in development practices (Cerghini and Nardelli 2008).

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Annex 1: Household interview script

I would like to start with a small description of your household:

- How many members? Name, gender, a brief profile
- Who live with you?
- Is there someone away, temporarily or permanently? Why? Where?
- Number of wives? Location of other wives? Number of children per each wife?

Can you tell me the history of your family? (Broadly try to understand the following, if conversation does not flow…..)

- When did you marry? Has the wedding ceremony been celebrated/had the bull been killed (describe it)?
- Did you have your initiation to adulthood? Can you describe it?
- Are you a *Ngimoru* or *ngirisae*? What does it mean?
- When did you have your children?
- When did you move here? And why?
- How this place used to look like?
- What major changes did you observe around you?
- Have you lived somewhere else?
- What do you think is the future of this community?
- What do you know about the origin of this community?
- Do you know any episode/legend/story about the origin of this community?
- What do you like of living here?
- What is your typical day (from morning to night)? And your husband/wife? And your kids?
- What are your meals? Breakfast/lunch/dinner? And for special occasions? Which occasions?

Family budget:

- School: access, attendance and reasons, distance, expenses
- Health facility: access, attendance and reasons, distance, expenses, traditional medicine and traditional doctors, how did you learn about it, how do you choose, expenses
- Water: sources, distance, taste and preference, responsibilities, expenses, livestock
- Land: ownership, extension, acquisition, expenses, transmission to new generation, no-go zones
- Food: items, frequency, costs, shops, typical meal
- Non-food expenditure: items, frequency, costs, shops
- Income: what money you use to face these expenditures? What are your activities?
- What do you want money for?
- What you do not need money for?
- Have you always needed money?
- What is your livelihood? (Dominant livelihood perception)
- Do you have livestock?
- Where are the animals kept? Why?
- Can you describe your herd?

- When do you sell livestock? Why? Where do you sell it? How is the price?
- When do you slaughter livestock? Why?
- Some info about cooking
- Some info about lightening
- Some info about toilets
- What is your most important asset? Why?
- Can you list the objects in your house?
- What is the most important vegetation resource you have? Has it changed over time?
- What is your clan? And sub-clan?
- What's the symbol of the mark on people and livestock?

Migration narrative

- Do you migrate with the livestock? Did you use to migrate?
- Does someone else from the household or external take care of the livestock?
- What is the current migration strategy of your household? (splitting herds, etc.)
- Is it different from the past?
- Did you experience any conflict or have you heard stories of conflicts with other tribes?
- What has been the biggest impact of such conflicts?
- Do you move as far as you gran parents use to move?
- What places did you reach?
- How do you choose them? How do they look like?
- How long do you stay in each location?
- What do you bring with you?
- How do you move?
- Do you come back home with the livestock?

Narrative of crisis

- Can you describe everything you remember of this (…) episode? What happened? When? How the place looked like? What people did? What did you do? What did you see? How did you feel? What has changed since? What and who was the most helpful? Have you asked someone for help? Do you consider yourself better off or worst off?
- What is the worst thing has happened to you? What did you do?
- What you don't like the most: ranking scale (present options in pair)
    1- Drought
    2- Flood
    3- Human disease
    4- Livestock disease
    5- Conflict

Resilience narrative

- What are the 3 most important things/episodes that have happened to you?
- What do you wish the most in your life?
- What do you miss/wish?

- Things that you are proud of this community?
- Things that you wish to have as a community?
- Describe what you consider a good life: let it very open and report wording as accurate as possible
- Do you have a good life?
- If No, what is preventing you from having a good life?
- If Yes, how can you make it better?
- Rank conditions in order for a good life (1-3)
- Rank conditions in order for a bad life (1-3)

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

Annex 2: Livestock questionnaire

Questionnaire Number: | L | | | |

Date: ……

Name of respondent:……

Village: ……

Family wealth rank (Poor, Rich, Middle):……

Notes

……
……

Time at start of Interview:
Time at end of Interview:

1. Social information of person interviewed

1.1 Gender (F/M): ☐

1.2 Parental Relation with household head (household head, wife, son, daughter, etc):……

1.3 Age (18-25, 26-35, 36-50, >50): ☐

1.4 Clan (emachar and apol)
Emachar: ……
Apol: ……

1.5 Prevalent Subsistence Strategy (pastoralism, agro-pastoralism, business, fishing):
……

if "business", which type of activity: ……

2. Livestock

2.1 Livestock in order of importance: ☐ ☐ ☐ ☐ ☐ ☐

(use code Goat: GT, Sheep: SH, Cow: CW, Camel: CM, Donkey: DK, Chicken: CH)

2.2 Are there more animals than in the past? □ YES □ No

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

Reason:

……
……

2.3 What are shoats (goats and ships) important for? *Give examples*

……
……

2.4 What are cows important for? *Give examples*

……
……

2.5 What are camels important for? *Give examples*

……
……

2.6 What are donkeys important for? *Give examples*

……
……

2.7 What are chicken important for? *Give examples*

……
……

2.8 What is your favourite livestock to eat: ……..

And what is your favourite part of its meat:……

2.9 What parts of livestock is used for medical purposes?

Livestock	Part of animal used for medical purposes	What disease	Description of treatment
Goat			
Sheep			
Cow			
Camel			
Donkey			

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

2.10 What kind of diseases affects livestock?

Livestock	Disease name	Disease description	Description of treatment/ritual
Goat			
Sheep			
Cow			
Camel			
Donkey			

2.11 What parts of livestock is used for clothing and decoration?

Livestock	Part of animal used for clothing	What cloth/decoration
Goat		
Sheep		
Cow		
Camel		
Donkey		

2.12 What other parts of livestock you keep and why?

……
……

2.13 What are the main sources of drinking water for your animals?

Water source #	Type (protected shallow well, open shallow well, spring, river, pipe/kiosk/borehole, other - specify)	Distance in minutes	Who water the animals
Goat/Sheep			
Camel			
Cow			

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

2.13 How often do you water the animals?

How often do you water the animals	Wet season	Dry season
Cows		
Camels		
Goats/Sheep		

2.14 How do you access to water for your animals: □ it's free and everybody can go

□ it's free and only members of my family can go (others must ask permission)

□ it's free but I need to ask permission to the owner

□ I pay for (How much: ……Kes per month)

2.15 What steps are involved in the migration with animals?

(example: description of the migration process - first make decision to migrate, why, when, who makes such decision, then send a scout to see where there is grass/water, then decide where to go and how they make such decision, then prepare for leaving and what you take with you, how do you divide the animals, migration, specify who moves and who remains at the awi*, for how long do they migrate, what are the main risks to migrate and to stay back at home)*

……
……

2.16 Do members of your family move with animals more than in the past?

□ YES □ No

Reason:

……
……

2.17 Do members of your family move closer to the *awi* than in the past?

□ YES □ No

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

Reason:

……

……

2.18 Do you have satellite camps (*abor*)? □ YES □ No

If Yes, What livestock do you keep there and who looks after them?

Use code Goat: GT, Sheep: SH, Cow: CW, Camel: CM

Abor #	Livestock, use code: goats GT, sheep SH, Cows CW, Camels CM	Who in the family stay with the animals in the camp (parental relation with household head)
1		
2		
3		
4		
5		

2.19 Is it more difficult to find grass than in the past? □ YES □ No

Reason:

……

……

2.20 Is it more difficult to find water than in the past? □ YES □ No

Reason:

……

……

2.21 What are, according to you, the advantages and disadvantage of pastoral life?

Advantages	Disadvantages

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

2.22 What are, according to you, the advantages and disadvantages of settled life?

Advantages	Disadvantages

2.23 Did it happen to you that you lost most of your animals due to a drought/pest/flood?

□ YES □ No

If Yes, why?

……
……

If Yes, what did you do?

……
……

2.24 Are there wild-animals in the area? □ YES □ No

Is it good to have them around?

Animal	Turkana name	English name	good to have them (Yes/No)	Reason
1				
2				
3				
4				
5				

2.25 Is there more wildlife than in the past? □ YES □ No

Codes for Livestock
GT = Goat SH = Sheep CW = Cow CM = Camel DK = Donkey CH = Chicken

Reason

……
……
……
……
……

2.26 List wildlife in order of palatability and personal preference

1:

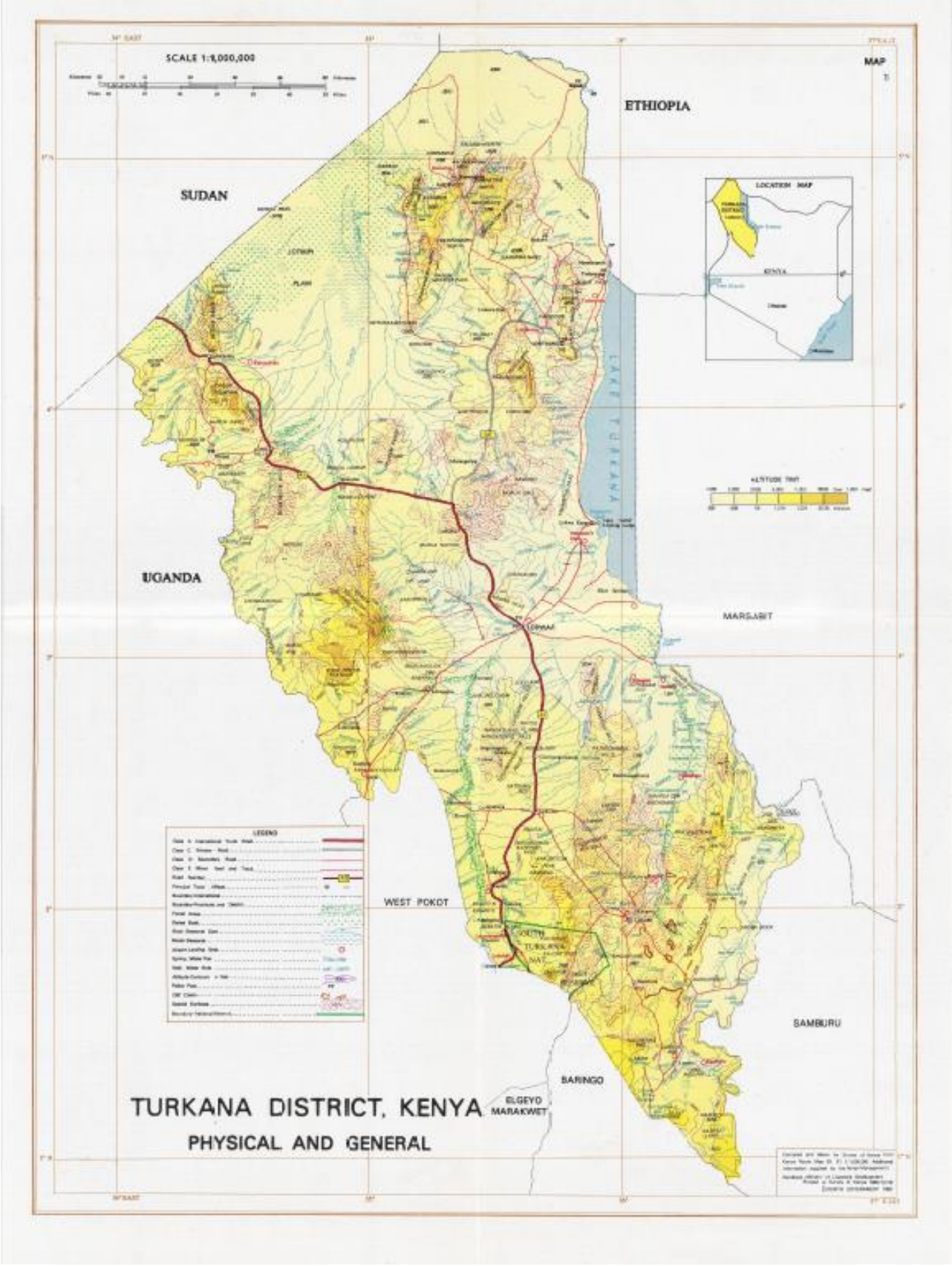
2:

3:

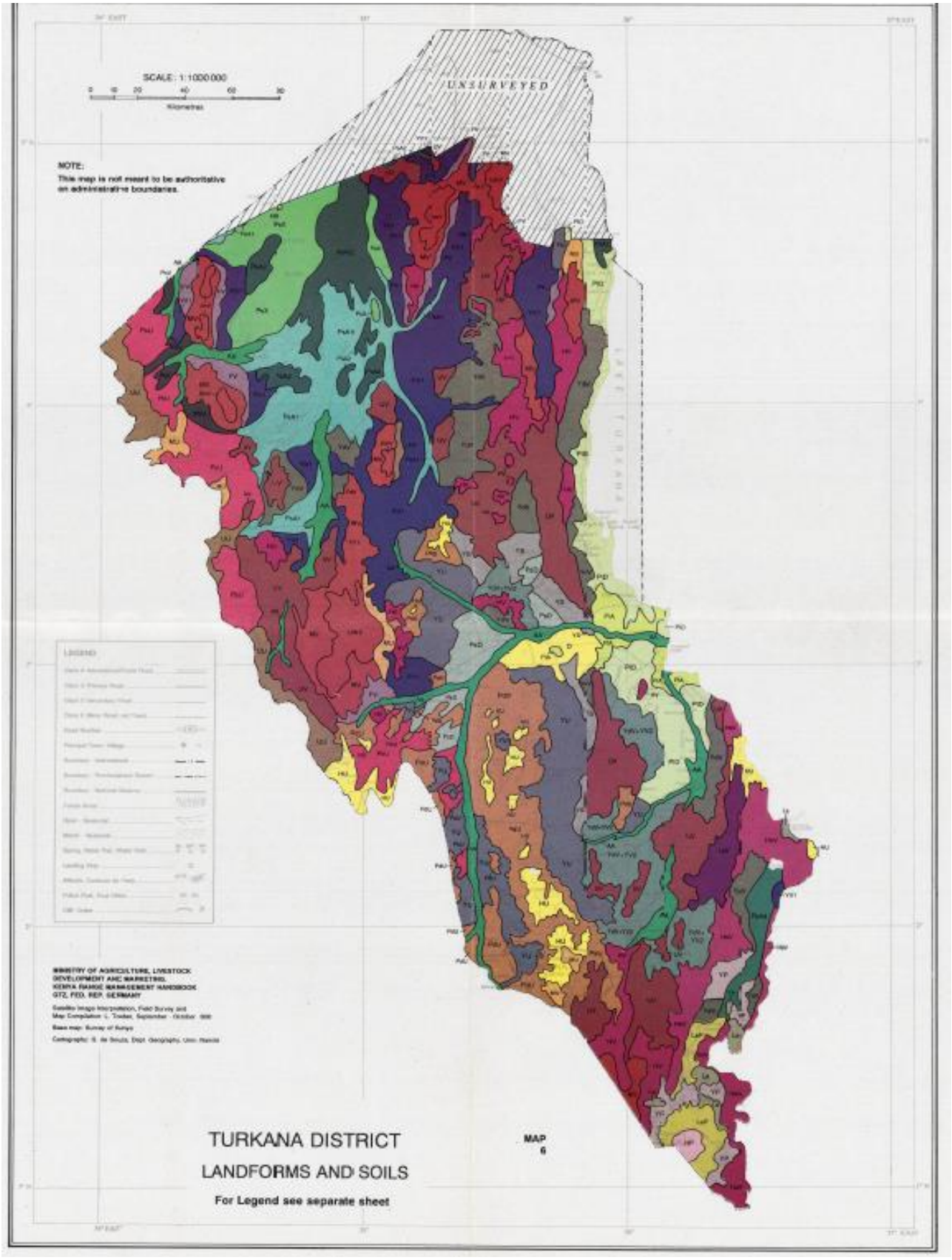
2.27 Collect one legend or the words of a song about a particular wild animal

……
……
……
……
……
……
……
……
……
……
……
……
……
……

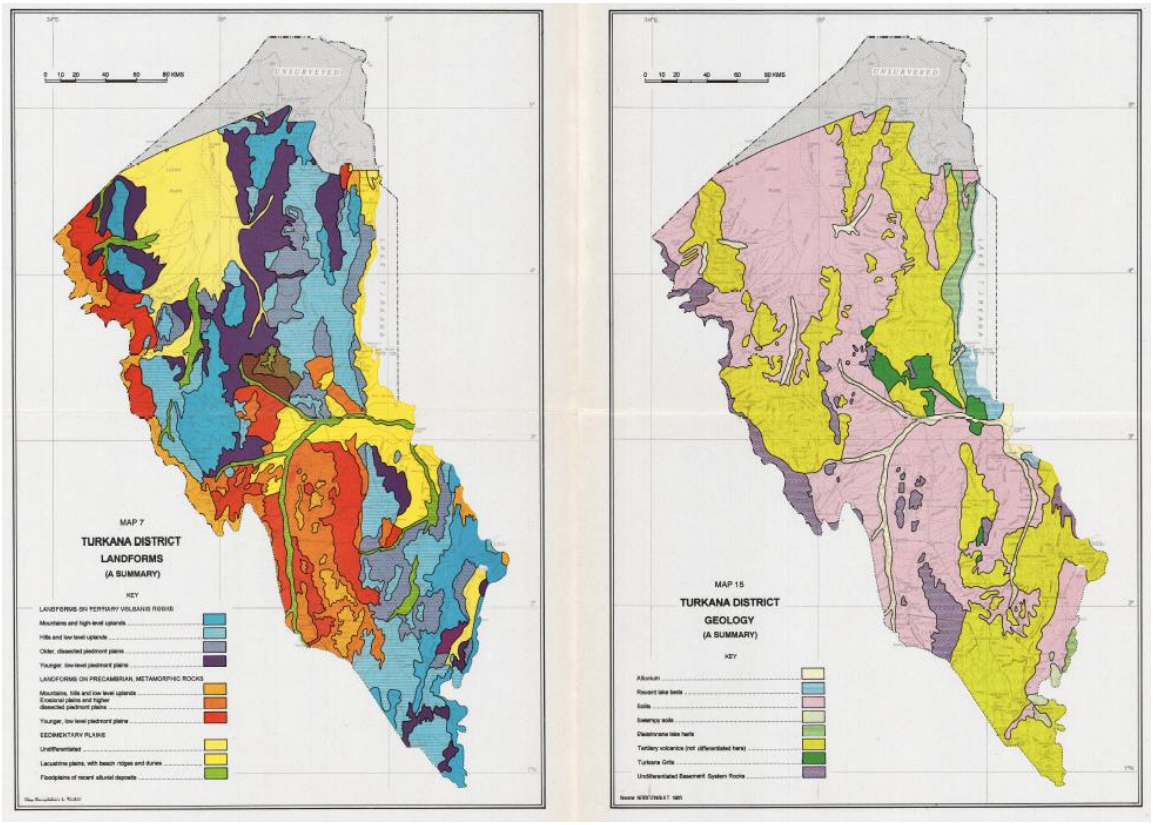
Annex 3: Physical maps



Annex 4: Landforms and soils map



Annex 5: Geology map



LANDFORMS AND SOILS

To accompany Map 6

L E G E N D

MAJOR LANDFORM	GEOLOGY, SOIL PARENT MATERIAL	MAP UNIT SYMBOL	SURFACE AREA[3] %	SURFACE AREA[3] km²	TOPOGRAPHY; PREDOMINANT SLOPE %	EROSION STATUS[1] SHEET AND GULLY EROSION	EROSION STATUS[1] WIND EROSION AND DEPOSITION	CONSTRAINTS ON ACCESS BY LIVESTOCK[2] GOAT & SHEEP	CONSTRAINTS ON ACCESS BY LIVESTOCK[2] CAMEL	CONSTRAINTS ON ACCESS BY LIVESTOCK[2] CATTLE	CONSTRAINTS ON ACCESS BY LIVESTOCK[2] ADDITIONAL WET SEASON CONSTRAINTS	HAZARD OF FLOODING, PONDING	SOIL PROPERTIES: DRAINAGE	SOIL PROPERTIES: DEPTH CLASS	SOIL PROPERTIES: COLOUR	SOIL PROPERTIES: SALINITY, PRODUCTIVITY, CALCAREOUSNESS	SOIL PROPERTIES: ROCKINESS/ STONINESS	SOIL PROPERTIES: TEXTURE	SOIL PROPERTIES: INFILTRATION CAPACITY OF THE SURFACE SOIL[1]	SOIL PROPERTIES: SOIL WATER-HOLDING CAPACITY[1]	SOIL PROPERTIES: RELATIVE SOIL CHEMICAL FERTILITY[1]
Mountains	Undifferentiated Metamorphic Rocks	MU	1.9	702	Steep, irregular long slopes >30%	Moderate, locally severe	None	Moderate	Moderate-severe	Severe	None	None	Well	Shallow-deep	Various	None	Rocky and stony	Loamy sand-sandy clay loam	High	Various	Moderate
	Undifferentiated Tertiary Volcanic Rocks	MV	4.6	1676	Very steep, irregular slopes >30%	"End-stage" sheet erosion	None	Moderate	Moderate-severe	Severe	None	None	Well	Shallow	Various	None	Very gravelly stony; rocky	Clay loam	Moderate	Low	Moderate-high
Hills	Undifferentiated Metamorphic Rocks	HM	1.6	1154	Steep, irregular slopes, >/= medium %	Locally severe	None	Moderate	Moderate-severe	Severe	None	none	Wel	Various; very shallow	Various	None	Rocky and stony	Loamy sand-sandy clay loam	Various	Various, low	Moderate
	Undifferentiated Tertiary Volcanic Rocks	HV	4.9	2866	Moderate-irregular slopes	"End-stage" stone pavement	None	Slight	Moderate	Moderate-severe	None	None	Well	Very shallow	Yellowish brown	Locally calcareous	Extremely gravelly and stony	Clay loam-silty clay loam	Various	Low	Moderate-high
	Undifferentiated Volcanic Rocks, mainly Basalts	HBV	3.2	2246	Step-faulted escarpments and gentle slopes	1. Moderate sheet 2. Severe sheet erosion	None	1. None 2. Moderate	1. Moderate 2. Severe	1. Moderate 2. Severe	None	None	1. Moderate well 2. Wel	1. Shallow 2. Very shallow	Yellowish brown	Calcareous	1. Very gravelly 2. Cumulic stony	Clay-fine sandy clay loam	1. Moderate 2. Very low	1. Moderate 2. Very low	Moderate-high
	Volcanic Rocks and Ash Deposits	HP	0.2	140	Moderate and gentle, irregular and terraced	Local gully erosion	None-slight	Locally moderate	Locally severe	Locally severe	None	None	Wel	Deep and very shallow	Pale brown	Locally salic	Partly extremely rocky	Fine gravelly sandy clay loam	1. High 2. Low	1. Moderate 2. Low	Moderate; high
Step Faulted Plateaux	Undifferentiated Volcanic Rocks, mainly Basalts	UBP	0.6	842	Gentle slopes, broken by steep scarps and gorges	Slight; locally severe	Slight	Moderate	Severe	Severe	Temporarily severe	None	Wel	Deep and very shallow	Yellowish brown	None-locally calcareous	Extremely stony and bouldery	Clay -clay loam	Moderate and very low	Moderate and very low	Moderate-high
Uplands, over 1200 metres a.s.l.	Undifferentiated Tertiary Volcanic Rocks	UHV	1.9	1354	Undulating and rolling to hilly relief	Slight to moderate	None	Slight-moderate	Moderate	Moderate to severe	None	None	Wel	Various, moderate	Dark reddish brown	None	Gravelly and stony	Clay loam	High	Moderate-high	Moderate-high
	Undifferentiated Tertiary Volcanic Rocks	UV	11.2	7982	Rolling topography of dkvd slopes	"End-stage" gravel pavement	Slight	None	Moderate	Moderate	None	None	Well	Very shallow	Yellowish brown	Calcareous; locally saline	Extremely gravelly and stony	Clay loam	Moderate	Low	Moderate-high
Uplands, at 1200 metres a.s.l. and below	Undifferentiated Metamorphic Rocks	UU	1.6	1135	Undulating to rolling topography, 3-30%	Moderate sheet and gully erosion	None	None	Slight	Slight	None	None	Wel	Shallow; moderately deep	Yellowish brown to yellowish red	None	Gravelly and stony	Coarse sandy clay-sand	Various	Low	Moderate
Footslopes	Volcanic Rocks and derived Sediments	FV	1.8	1284	Gentle slopes of 2-5%	Moderate sheet and gully erosion	None	None	None	Slight	Locally slight	None	Wel	Deep and shallow	Dark reddish brown	Locally saline; calcareous	Locally stony	Clay loam and clay	Moderate	Moderate	Moderate-high
Piedmont Plains	Undifferentiated Tertiary Volcanic Rocks and derived Colluvial, Alluvial Deposits	YdV	4.0	2810	Intricately dissected gentle slopes	"End-stage" gravel pavement	Slight	None	Slight	Slight	None	None	Wel	Shallow-moderately deep	Dark reddish brown-dark grayish brown	Calcareous; locally saline	Gravelly and stony surface	Clay to loam	Moderate	Moderate-low	Moderate
		YdV	10.4	7351	Very gentle, very long slopes, 0.2-2%	Local gully erosion	Slight	Slight	Slight	Slight	Locally moderate	Local ponding	Moderately well-imperfect	Moderately deep-deep	Very dark grayish brown & dark brown	Saline; strongly calcareous	Some surface gravel	Gravelly clay loam over heavy clay	High	Moderate	Moderate-high
		YdV-YV2	0.9	2096	Association of dissected and non-dissected slopes	1. "End-stage" 2. Slight sheet erosion	1. None 2. Moderate	1. None 2. Slight	Slight	1. Slight 2. Moderate	1. None 2. Slight	1. None 2. Locally	Wel	1. Very shallow 2. Very deep	1. Dark grayish brown 2. Pale brown	1. Extremely saline 2. Saline	1. Extremely gravelly 2. None	1. Clay loam 2. Fine sandy loam	1. Moderate 2. High	1. Moderate 2. High	1. Moderate 2. High-vaic
	Sediments derived from Volcanic Ashes	YP	1.0	702	Gently sloping, locally intricately dissected	Slight sheet erosion local gully erosion	Slight	None	None	None	None	None	Wel	Deep	Light yellowish brown	None	Locally gravelly surface	Silty loam	High	High	High
	Sediments derived from Metamorphic Rocks	YU	5.6	4013	Very gentle, very long slopes	Moderate sheet erosion	Slight-locally moderate	None	None	None	None	None	Wel	very deep	Yellowish brown dark brown	Locally saline	None	1. Sandy clay loam 2. Stratified sandy	1. Low 2. Moderate	1. Moderate 2. High	1. Moderate 2. High
	Sediments derived from Metamorphic Rocks	YS	1.5	913	Gently sloping, locally intricately dissected	"End-stage" local gully erosion	Slight-moderate	None	Slight	Slight	None	Local ponding	Wel-moderately wel	Very shallow-deep	Pale brown to yellowish brown	Non-extremely saline, calcareous	Gravelly surface	Gravelly clay to loam	Low	Low	Low; locally saic
Non dissected Plains	Undifferentiated Volcanic Rocks mainly Basalts	PdV	0.6	421	Gently undulating to almost flat	None	None	None	Slight	Moderate	Moderate	Local ponding	Moderately wel	Moderately deep	Grayish brown	Calcareous	Locally stony-bouldery	Clay	Moderate	Moderate	Moderate
Dissected Erosional Plains	Undifferentiated Metamorphic Rocks	PdU	4.2	2948	Gentle long slopes; intricately dissected	"End-stage" local gully erosion	Slight	Moderate	None	None	Wel	Very shallow	Yellowish red to dark brown	Locally calcareous and saline	Extremely gravelly surfaces	Loamy coarse sand-sandy clay loam	Moderate-low	Very low	Moderate	
Sedimentary Plains	Sediments derived from Metamorphic Rocks	PdU	0.6	2868	Very gently undulating to almost flat	Slight to moderate sheet erosion	None	None	None	None	None	None	Wel	Very deep	Dark reddish brown	None	None	Sandy loam over sandy clay loam	Moderate	Moderate	Low
	Sediments derived from undifferentiated sources	PdU	3.5	2457	Almost flat	None	Locally slight	None	None	None	Moderate	Local ponding	Imperfect	Very deep	Dark brown	Calcareous, saline, sodic	None	Clay	Moderate-high	Moderate-high	Moderate-high
	(Sub) Recent Sandy Alluvial Deposits	PdA1	0.4	3691	Almost flat, with occasional low channels and dunes	Local gully erosion along channels	Locally moderate	None	None	None	Locally	Local flooding	Wel	Very deep	Pale brown to dark brown	Locally saline, calcareous	None	Stratified fine sandy and loamy	High	High to moderate	High; locally low-saic
	(Sub) Recent Clayey Alluvial Deposits	PdA2	0.8	2527	Flat	None	None	None	None	None	Severe	Local flooding ponding	Imperfect-poor	Very deep	Dark brown	Calcareous, saline, sodic	None	Clay loam	Moderate	Moderate	Moderate
	(Sub) Recent Saline-Sodic Sediments	PdA3	0.7	491	Flat	None	Locally active dune formation	None	None	None	Severe	Local flooding ponding	Imperfect-poor	Very deep	Olive brown	Strongly saline, extremely sodic	None	Silt loam-clay	Moderate	Low	Very low (saic)
	Undifferentiated Sedimentary and Windblown Deposits	PdD	1.5	1053	Very gently undulating with small dune ridges	Slight to moderate sheet erosion	Slight-moderate	None	None	None	1. None 2. Slight	Local ponding	1. Somewhat excessive 2. Imperfect	Very deep	Pale brown to dark brown	1. None 2. Saline-sodic	None	1. Loamy sand 2. Sandy loam	1. High 2. Low	1. Moderate 2. Low	Moderate-low
Lacustrine Plains	Lake Deposits	PdL	0.8	562	Almost flat	Slight sheet erosion	Slight	None	None	None	Locally moderate	Common ponding	Somewhat excessive-imperfect	Very deep	Yellowish brown	None-slightly saline	None	Loamy fine sand	High	Low to moderate	Moderate
	Lake Deposits and Windblown Deposits	PD	3.8	2668	Almost flat with dune ridges and seasonal bars	None	Locally active dune formation	None	None	None	Locally	Local ponding	Somewhat excessive and moderately well	Very deep; locally shallow	Pale grayish brown	Calcareous; locally extremely saline	Local gravel beds	Various sandy textures	Moderate-high	Low	Moderate
Riverine (Flood) Plains	(Sub) Recent Riverine Alluvium	AA	3.1	2178	Almost flat, partly with braiding river channels	Local gully erosion along channels	Locally active dune formation	None	None	None	Locally slight	Local flooding	Wel	Very deep	Pale brown-dark brown	Non-saline, locally calcareous	None	Stratified fine sandy to clayey	High	High	High
Dunes	Windblown Sands	D	0.8	562	Undulating relief with short slopes	None	Slight	None	None	None	None	None	Well-somewhat excessive	Very deep	Light yellowish brown	None-saline, slightly calcareous	None	sand	High	Moderate	Moderate
Lava Flows	Recent Volcanics mainly Basalts	La	0.4	281	Very irregular, rugged mass topography	None	None	Moderate	Severe	Severe	None	None	-	-	-	-	Extremely rocky	-	-	-	-
	Recent Volcanic-mainly Basalts, Trachytes, Rhyolitic Ashes	LaP	1.0	702	Irregular and flat, mainly lava flows topography	Slight sheet erosion	Slight	Slight	Slight	Severe	None	None	Wel	1. Very shallow 2. Various	Yellowish brown	Slightly calcareous	1. Rock outcrops 2. Fine gravelly	Sandy clay loam	1. Low 2. High	1. Low 1. High	Moderate-high

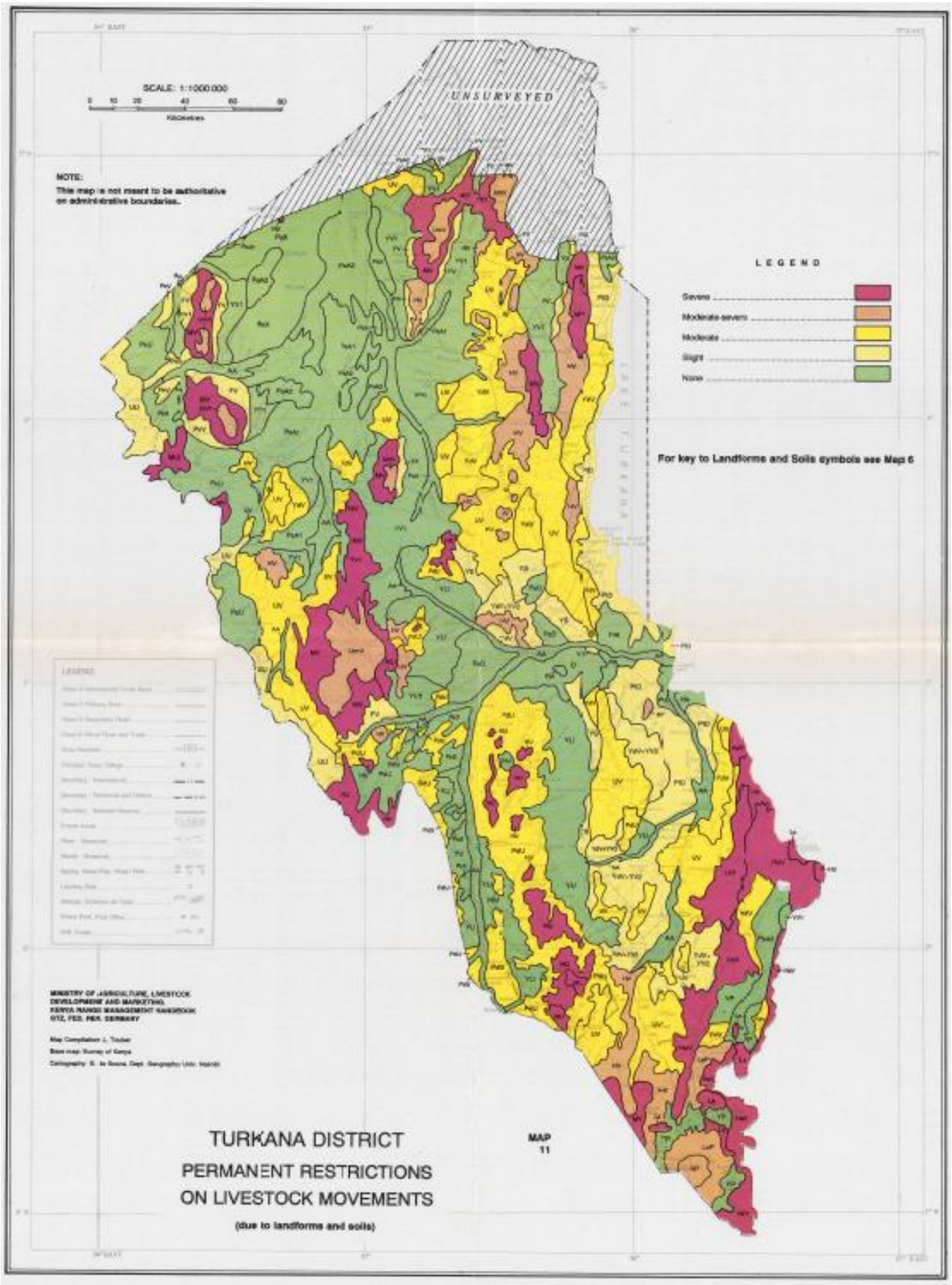
NOTES:

1) Qualitative estimations only

2) Due to slope steepness, stoniness only, - vegetation (e.g. dense bush) not taken into account, nor readiness to watering points, etc.

3) Total surface area including lake surface within District and "Triangle": 70303 km²
Lake within District: 3.3%; 2100 km²

Annex 6: Restriction on livestock movements



Annex 7: Mountain toponomy

MOUNTAIN NAMES- TRANSLATED with explanation:

URUM: *aurum* is a verb which means to hide and spy over something; *urum* is a noun that implies a place where people hide and spy over enemies, or enemies spying over people. Urum also implies coming together for the sake of a common enemy. For example, when people go hiding in the bushes to spy over an enemy, Turkana say they are doing AURUM. URUM therefore implies place where people hide or come together anticipating for an enemy.

MORUANGADELIO: *ekadeli* is a tree producing fruits called *ngakadelio*. *Emoru* is a mountain. Moruangakadelio implies mountains with those trees producing *ngakadelio*.

MORULINGA: "the different mountain", half bare, half bushy mountain: L*inga* means to mix colours. Morulinga therefore is called so because of the mix of colours.

LOIMA: *loima* means big, the place is called loima in reference to big mountains.

ERUS: *erus* is another term for *echwa*; *echwa* is a place where water comes out from the grounds i.e springs.

KAAKAL: place with many camels, a place where camels like to grace.

LOPETAKINEI: *peta* is to spread, *kinei* is shoats, lopetakinei is place where shoats spread while grazing and needs little herding. The place should therefore be flat with few short hills with pasture for shoats

MORUITA: *ita* is sharp, moruita is therefore a sharp and tall mountain.

MORUSIPO: S*ipo* is a heap; morusipo is therefore a mountain that sits like a heap

The following mountain names, as per the Turkana, might not necessarily feature the name "*emoru*" which implies mountain. When they use the name in references to a particular mountain, they assume that you know it is "that" mountain that behaves as the name suggests:

NALEMTOGOI: *Etogo* means grass or small sticks tied together (like in the house constructions). In case of the house construction they are tied to the house from the ground to help climb the house for construction purposes. *Nalem* means blunt. *Nalemtogoi* therefore implies a hill with *etogo* that is flat. *Etogo* in mountain's case can be rocks or bushes which are likened to grass - a hill or a mountain that is easy to climb because there is little obstruction like thick bushes or huge rocks

NAPEDO: When something has a hole we say *epeded*, *Napeded* means "that with a hole" *napedo* here implies hill or mountain that as a "hole". Hole here does not necessarily mean what we might be tempted to think but a passage way….route through that particular hill or mountain.

NAMORTUNGA: *Amoru* means stone, *Namor* means places with stones, *Ng'itunga* means people. Namortunga therefore implies that place where stones look like people. Namorutunga is a small hill where stones stand like people.

NGAKALALÈ: The mountain of tree *Ngakalalè*; Ngalale is a local fruit that is common in most parts of Turkana. A place can be named because of the availability of these trees. This place is called so because of the trees Ngalalio is plenty. Ngalale, therefore, whether it is a hill or a mountain will imply there is plenty of Ngakalalio.

LOTEDE: *Lotede* is a kind of a bird that mostly stays in open fields, Lotede runs very first and they mostly walk in pairs. Lotede stands like a "maasai" (with one leg folded). Giving this name to a hill or a mountain such a name means that mountain stands high and is most probably the only mountain in the vicinity.

MORU ANGKAATH: flat area with no bushes, herders can just relax and have an eye on their animals. *Moru* is a mountain and *ngaath* is a kind of a grass. *Moru angkaath* therefore implies mountain that ngaath grow on. When herders take care of their animals in Moru Angkaath, there animals get plenty of grass and herders can just relax and watch them from far.

KOPETA KINEI: Where goats get lost, dispersed goats - *Apeta* is to distribute, *ngakinei* is shoats. This place is called so because it can be an open field with enough grass and so clear that one can see far. When one herds shoats in this area they don't stick together but go in different directions far apart. Or can be so bushy that shoats get lost.

KAMOTILE: Tall Mountain - *ile* is straight; if something stands straight we say "ni ile". *Kamotile* means a mountain stands tall…straight.

KAALINGOROK: the sharp pyramid / different layers of ground types, black where there are stones, white where is bare ground, the word means striped pattern. In Turkana the word *ali* means to watery, sometimes it is used to mean it is in plenty. *Ngorok* means combination of black and white colours…….*Kaalingorok* therefore implies there is plenty of combination of colours. Whether a hill or a mountain is it called so because there are black and white strips in plenty.

NG'AMORAREI: *Ngamorarei* means two stones and this place might have been named so because of presence of maybe two uniquely placed stones or maybe there are two conspicuous stones that everybody would easily understand that it is that particular place that is being referred to.

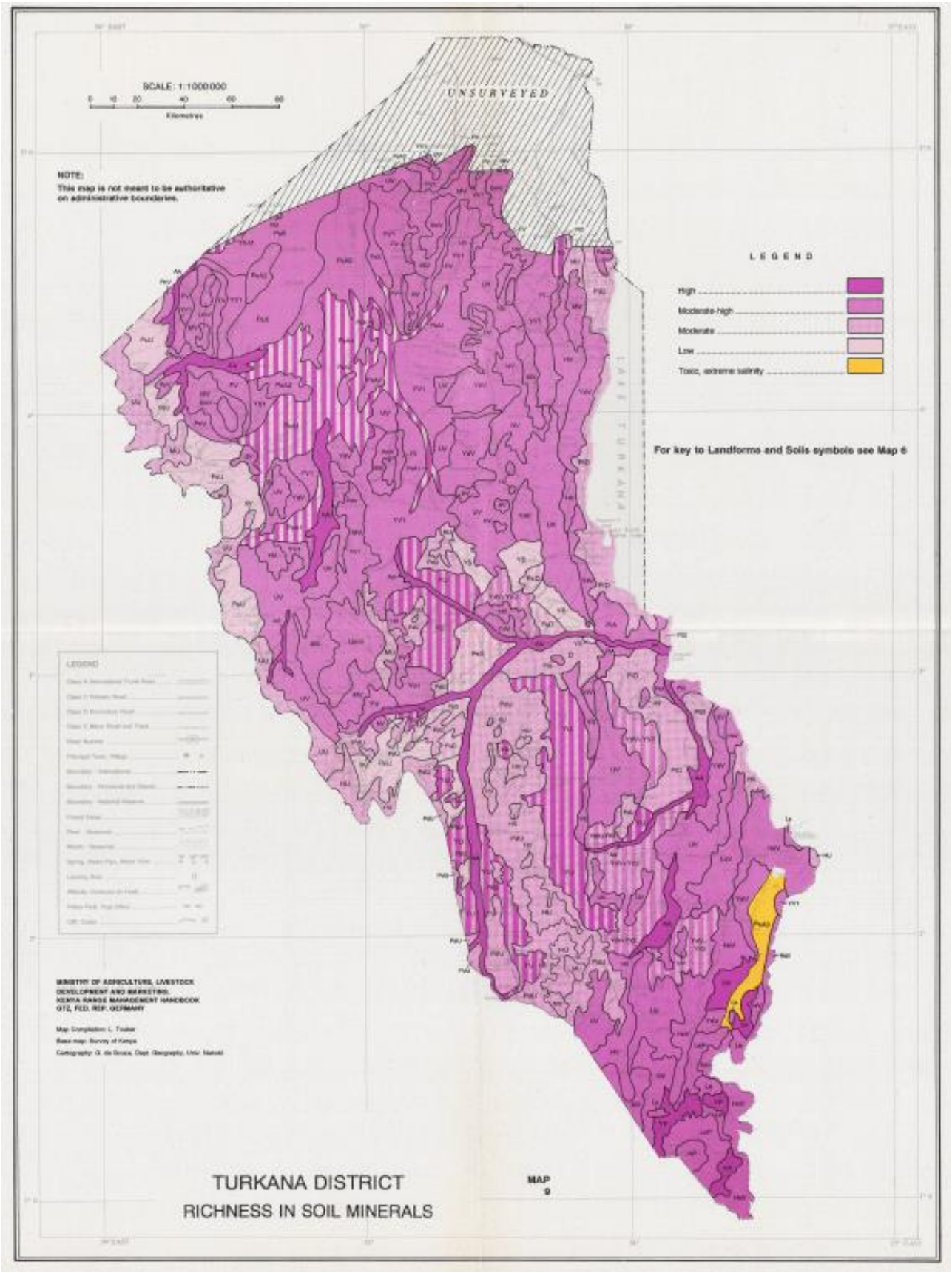
KARAKARAYO (pronounced *kharakharayo):* almost onomatopoeic, several small peaks making up a whole mountain range, not defined; when you walk on a stony ground you make that sound *karakarayo*. *Karakarayo* is a sound made by stones when one steps on them. This place is called so because it has many stone that make this "*kharakharayo*" noise when stepped on. This name is generated from the sound stones make.

KAKODU: So bushy that when you walk up there the thorns will just keep you from coming back. *Akodu* means to hold, you can imagine what thorns do to you when go through a thicket of thorns. *Kakodu* implies that particular hill or mountain with thorn bushes that hold people.

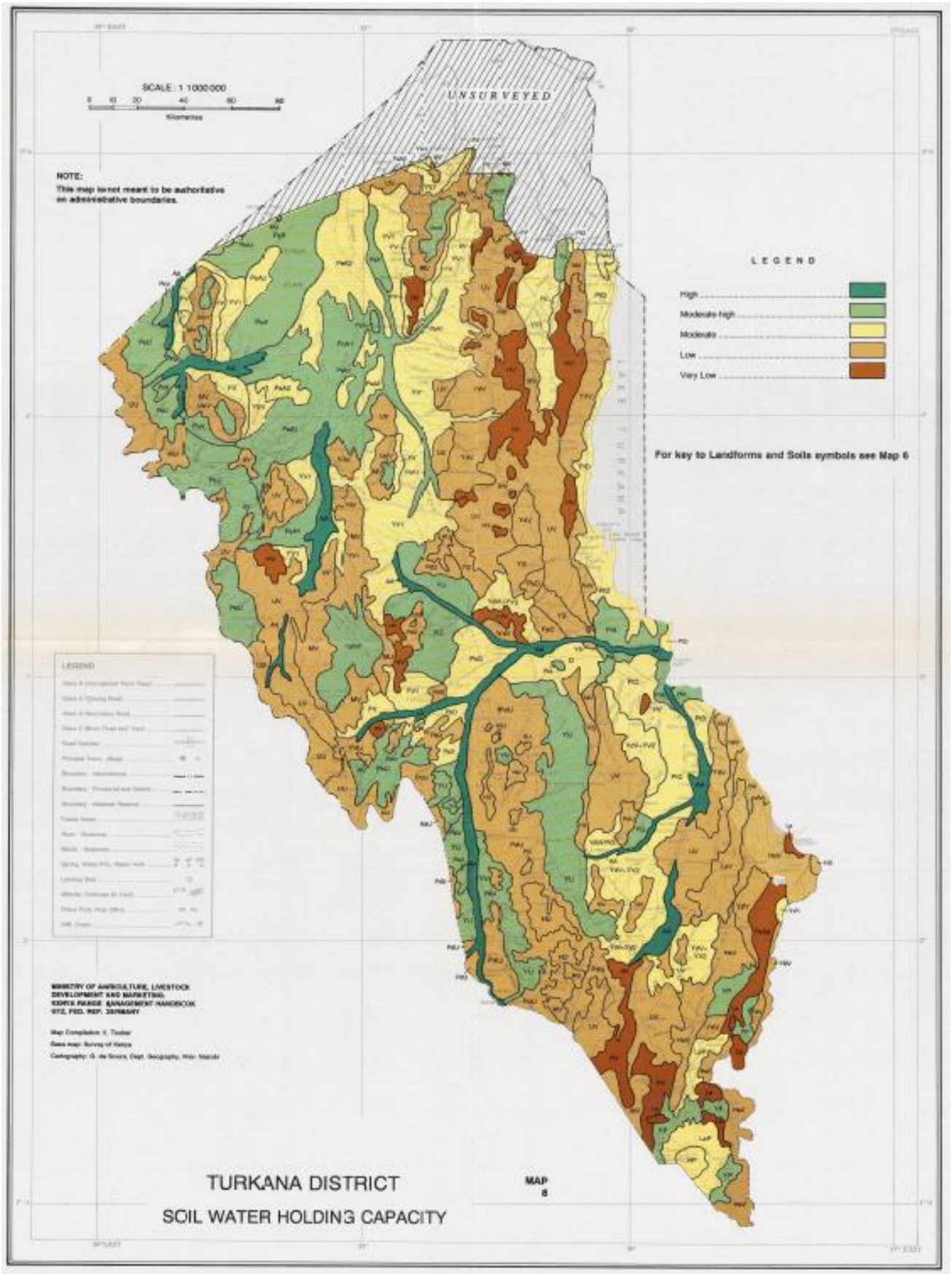
Annex 8: Soil toponymy

Topography and soil heterogeneity through language
Abwel/ekipror*: place that retains water for a short time after rains, found in river beds*
Akhanyapnyapudu*: very fine soil found mostly along river banks, not to confuse with clay soil*
Akope: *very steep part of the mountain with huge stones, impossible to climb, Turkana associate this place to evil presence*
Amakhat: *salt found mostly on mountains, used as a food additive, also used together with tobacco by those chewing tobacco*
Aroo: *flat area, but not very big, sort of a small* emuria
Atapar: *fits the description above but* ekipror *is found in dry-lands and retains a lot of water that can be used by locals to cultivate*
Aukot: *Small raised ground that resembles a hill, but smaller than a hill*
Ekipetot: *steep place found mostly along river*
Ekitela: *area mostly under the bases of mountains that can support growth of trees and grass for animals*
Ekokote/ekokonye*: rough soil*
Emunyen: *coloured soil, could be red, white, or yellow*
Emuria: *flat but wide area*
Nariemet: *place where river joins a large water body*
Ngakup: *black soil that looks like crushed charcoal found mostly on the shores of the lake, used by ladies for beauty*

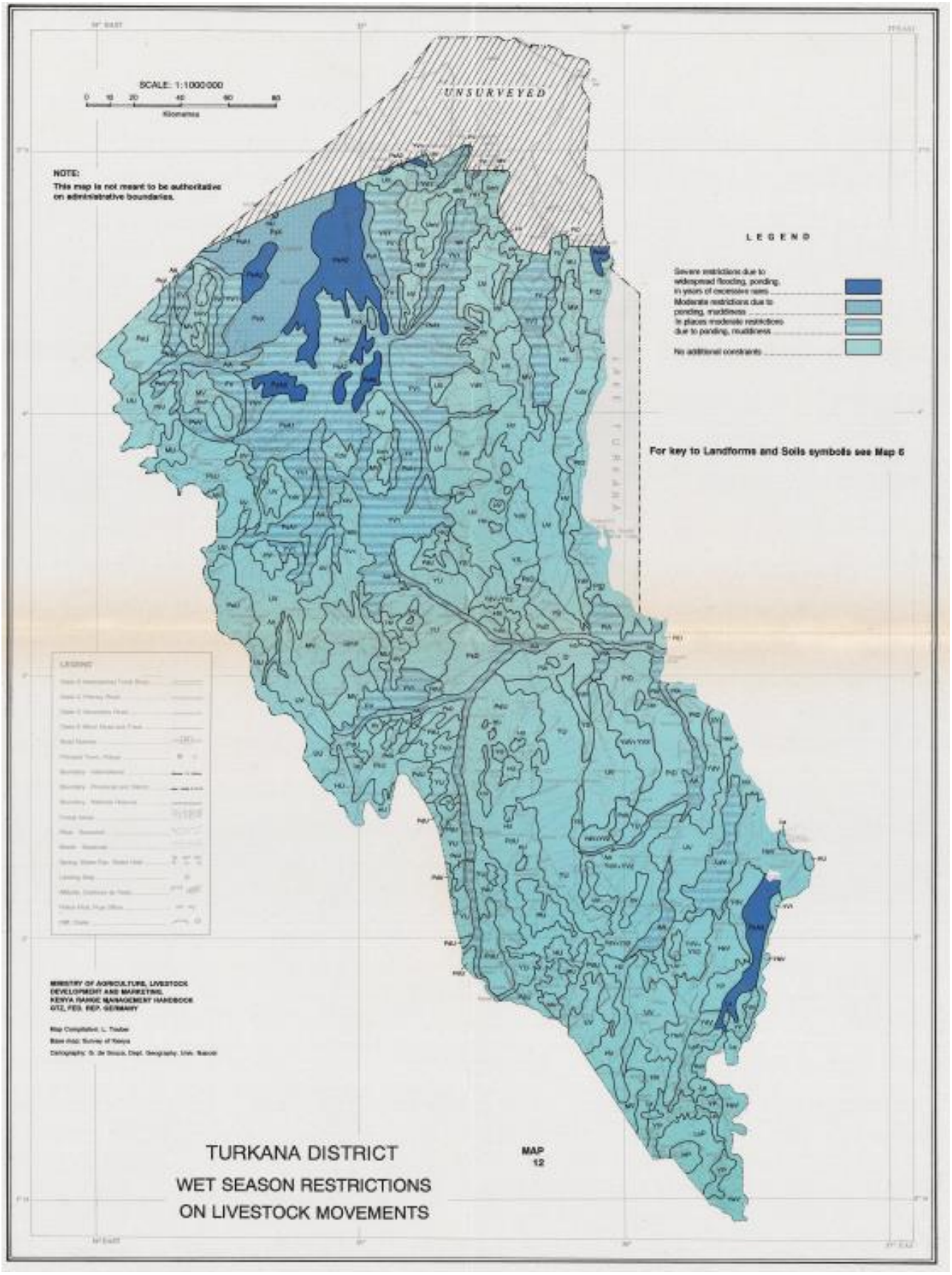
Annex 9: Soil minerals map



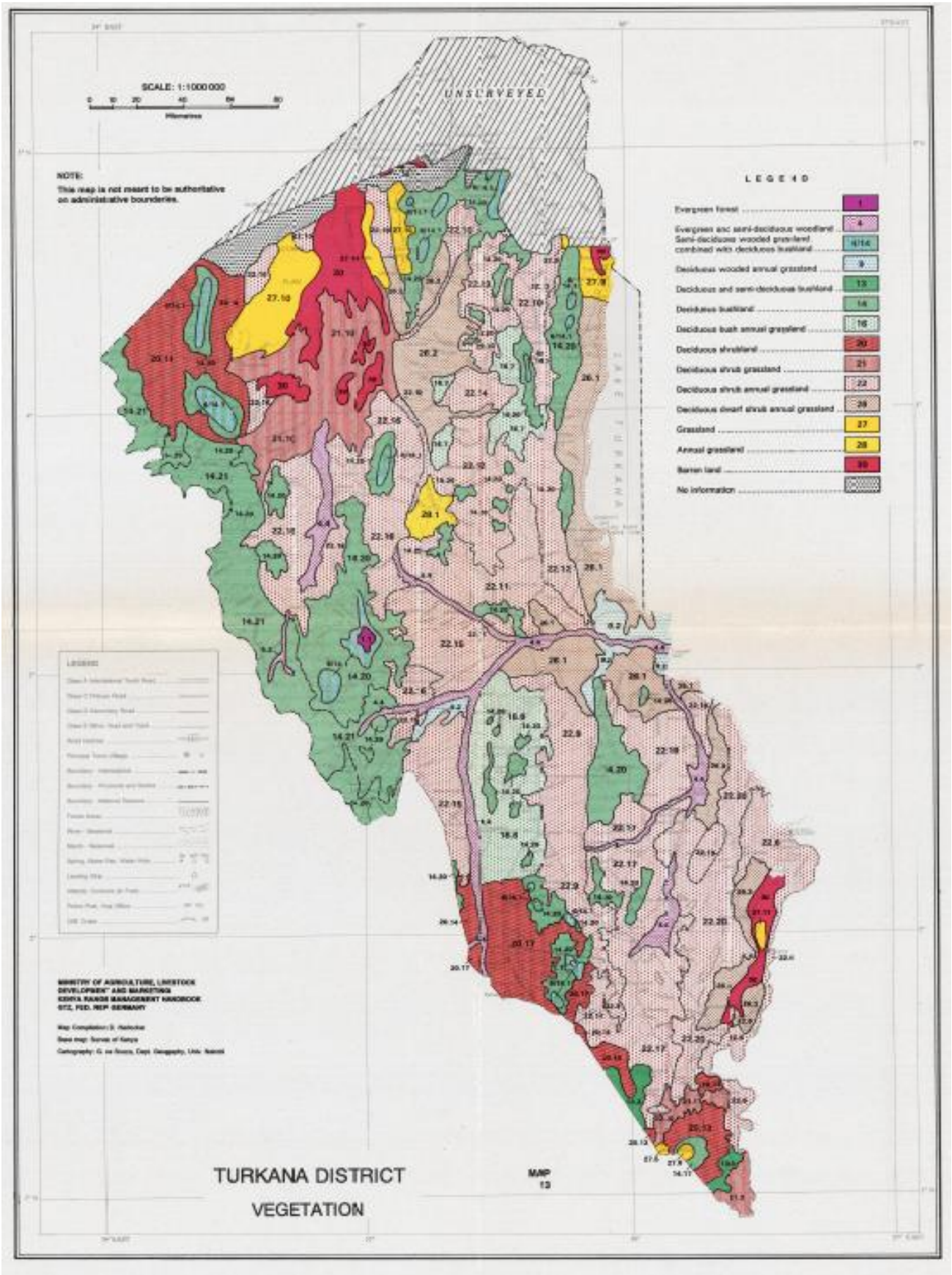
Annex 10: Soil water holding map



Annex 11: Wet season restriction on livestock movement



Annex 12: Vegetation map



Annex 13: Territorial sections

