

# Climate Change Threats to National Development and Policy Options for Kenya Essays



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Edited by

George Okoye Krhoda and Elias Ayiemba

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# TABLE OF CONTENTS

List of Figures.....	viii
List of Tables.....	xi
List of Boxes .....	xii
List of Appendix.....	xiii
Editors' Note .....	xiv
Acknowledgements .....	xv
Chapter 1 .....	1
Kenya's Second Nobel Laureate: An Interview with Prof. Richard Samson Odingo <i>Jeremiah Ogonda Asaka</i>	
Chapter 2 .....	22
Exploring How Climate Change Impacts Human Security in Kenya: Challenges and Opportunities for Policy Action <i>Prof. Elias H.O. Ayiemba</i>	
Chapter 3 .....	46
Human Security Nexus in the Context of Climate Change: The Kenyan Scenario within the East African Region <i>Dr. Parita Shah</i>	
Chapter 4 .....	71
Causal Assessment of Climate Change as a Determinant of Conflict in Kenya <i>Jemimah Awino</i>	
Chapter 5 .....	88
A Preliminary Analysis of the Photoperiods in Kenya and their Relationship to Growing Periods <i>Chris L. Coulson and David N. Mungai</i>	
Chapter 6 .....	104
Review of Climate Change Risk Assessment Methodologies/ Tools Used in Arid and Semi-Arid Lands <i>Dr. Wambua, Boniface Nzuve</i>	

Chapter 7 .....	138
Climate Change Adaptation Strategies in the Kenyan Urban Area	
<i>Dr. Frida Nyiva Mutui</i>	

## **Gender and Climate Change**

Chapter 8 .....	156
The Worsening African Climate Change Burden: What Are the Options for Sustainable Interventions?	
<i>Richard S. Odingo and Alice A. Oluoko-Odingo</i>	

Chapter 9 .....	176
Gender and Resilience: Policy Options for Climate Risk Reduction in Africa	
<i>Richard S. Odingo, Alice A. Oluoko-Odingo, and Jackline K.A. Nyerere</i>	

Chapter 10 .....	188
Women Confronting Climate Risks in the East African Agro- and Agro-pastoral Ecosystems: Is Sustainability Feasible?	
<i>Prof. Oluoko-Odingo, A.A.</i>	

## **Urbanisation, Infrastructure and Climate Change**

Chapter 11 .....	208
Climate Change Adaptation Strategies in Kenyan Urban Areas	
<i>Dr. Frida Nyiva Mutui</i>	

Chapter 12 .....	224
Decarbonising Transportation in Kenya: Pathways to Sustainable Mobility	
<i>Prof. Evaristus M. Irandu</i>	

## **Case Studies of Climate Science**

Chapter 13 .....	248
Changing Rainfall Onsets and its Implications on the Livelihoods and Ecosystem of Dry Lands in Kenya	
<i>Musingi J.B. Kioko and Mutemi Joseph</i>	

Chapter 14 .....	254
Evaluating the Effectiveness of Dykes for Flood Mitigation in the Lower Nzoia River Basin in Kenya	
<i>Opilo B. Nasambu*, Neyole E. Masinde and Kiluva V. Mwikali</i>	

Chapter 15 .....	267
The Influence of Weather Parameters on Reported Coronavirus Prevalence in Kenya	
<i>Oluoch M. Nyagondi, Dr. Bethwel Mutai and Dr. Christopher Oludhe</i>	

Chapter 16 .....	291
A Forage Monitoring and Prediction Model for an Early Warning Application over the East of Africa Region <i>Jully Odhiambo Oumaa, Dereje T. Wakjirab, Ahmed Amdihunc, Eva Nyagab, Franklin Opijaha, Viola Otienoc, Eugene Kayijamahec, Solomon Munywab and Guleid Artanc</i>	
Chapter 17 .....	308
Impact of Drought on Sorghum Production: A Global Review <i>Jackob Haywood Ondiko and Charles W. Recha</i>	
Chapter 18 .....	327
An experimental study of Energy Efficiency of Building Technologies in the Use of Soil, Water and Forest/Grass and Climate Change <i>Robert Sangori and George Krhoda</i>	
About the Authors .....	352

# LIST OF FIGURES

<b>Figure 2-1</b> Climate change and human security analytical framework indicators.....	31
<b>Figure 3-1</b> Climate change and human security.....	57
<b>Figure 3-2</b> Climate change extreme events and agricultural growth in Kenya.....	59
<b>Figure 4-1</b> Climate change and conflict.....	73
<b>Figure 4-2</b> Map of Kenya Showing the counties (source Google Maps). 74	
<b>Figure 4-3</b> Theory of change for Intervention activities for High-Risk Individuals concerning Climate Change and Conflict .....	85
<b>Figure 5-1</b> shows the variation in daylength from 4oN (Mandera) to 4oS (Ramisi) where the maximum daylength.....	93
<b>Figure 5-2</b> Some growing seasons at different latitudes in Kenya.....	95
<b>Figure 6.1</b> Conceptual framework for integrating climate impact assessments .....	108
<b>Figure 6-2</b> A Schematic Adaptation Process of Risk Management.....	111
<b>Figure 7-1</b> Urban heat island profile (Önder & Dursun, 2010, p. 38)....	143
<b>Figure 7-2</b> Annual minimum temperatures in Nairobi over time .....	143
<b>Figure 7-3</b> Annual rainfall in Nairobi over time .....	144
<b>Figure 8-1</b> Total Annual Anthropogenic Emissions by Groups of Gases 1970-2010.....	158
<b>Figure 8-2</b> Total Annual Precipitation .....	160
<b>Figure 8-3 (a)</b> Evidence of impacts of climate change in Mount. Kilimanjaro .....	161
<b>Figure 8-3 (b)</b> Impacts of Climate Change in Africa shown by the area covered by water in Lake Chad .....	161
<b>Figure 8-4</b> Disaster Frequencies within the GHA in 2009.....	162
<b>Figure 8-5</b> Disease burdens in some selected African Countries.....	164
<b>Figure 8-6</b> Poverty Burden for some selected African countries.....	166
<b>Figure 8-7</b> Climate change, Adaptation and Mitigation and Social-ecological resilience and Sustainability .....	167
<b>Figure 9-1</b> Female Population as a percentage of the total .....	178
<b>Figure 9-2</b> Population with at least Secondary Education (25 years and older) .....	179
<b>Figure 10-1</b> The Conceptual Framework Model showing factors influencing women's adaptation to climate risks and strategies .....	199

<b>Figure 10.2</b> The Conceptual Framework Model showing factors influencing women's adaptation to climate risks and strategies .....	200
<b>Figure 11-1</b> Urban heat island profile.....	212
<b>Figure 11-2</b> Annual minimum temperatures in Nairobi over time.....	213
<b>Figure 11- 3</b> Annual rainfall in Nairobi over time .....	213
<b>Figure 13-1</b> The study area.....	250
<b>Figure 13-2</b> Bimodal long term Rainfall average distribution in the study area .....	251
<b>Figure 13-3</b> Decadal daily rainfall average (1966-2015).....	252
<b>Figure 14-1</b> The Lower Nzoia River basin showing the administrative areas, rivers and elevation derived from the Digital Elevation Model (30m DEM) using ArcGIS 10.3.....	258
<b>Figure 14-2</b> Response on the designs, heights and widths of dykes used in the Lower Nzoia River Basin.....	259
<b>Figure 14-3</b> Response on materials used in designing the dykes used in the Lower Nzoia River Basin .....	260
<b>Figure 14-4</b> Response on the period of flood frequency occurrence in the Lower Nzoia River Basin.....	260
<b>Figure 14-5</b> Frequency of dyke repair by the local community in the Lower Nzoia River Basin.....	261
<b>Figure 14-6</b> Gender response on the effectiveness of dykes in the Lower Nzoia River Basin.....	262
<b>Figure 14-7</b> Causes of ineffectiveness of dyke performances in the Lower Nzoia River basin .....	263
<b>Figure 14-8</b> Age of respondents on flood Preparedness measures in the Lower Nzoia River Basin.....	264
<b>Figure 15-1</b> The relationship between monthly wind speed and coronavirus prevalence in Uasin Gishu.....	274
<b>Figure 15-2</b> Graph for a temporal variation between coronavirus prevalence and wind speed in Uasin Gishu.....	275
<b>Figure 15-3</b> Temporal analysis for wind speed and coronavirus prevalence in Uasin-Gishu .....	276
<b>Figure 15-4</b> Relationship between seasonal wind speed and COVID-19 prevalence in Uasin Gishu.....	276
<b>Figure 15-5</b> Relationship between monthly temperatures and Covid-19 prevalence in Uasin Gishu.....	277
<b>Figure 15-6</b> Relationship between seasonal temperature and COVID-19 prevalence in Uasin-Gishu County.....	278
<b>Figure 15-7</b> Relationship between monthly coronavirus and wind speed in Mombasa.....	279

<b>Figure 15-8</b> Relationship between seasonal wind speed and COVID-19 prevalence in Mombasa County.....	280
<b>Figure 15-9</b> Relationship between seasonal COVID-19 cases and temperature in Mombasa County.....	281
<b>Figure 15-10</b> Temporal analysis between COVID-19 prevalence and temperature in Mombasa.....	282
<b>Figure 15-11</b> Temporal analysis between coronavirus prevalence in Mombasa and temperature.....	283
<b>Figure 15-12</b> Relationship between monthly COVID-19 prevalence and wind speed in Nairobi .....	284
<b>Figure 15-13</b> Relationship between monthly COVID-19 prevalence and temperature in Nairobi .....	285
<b>Figure 15-14</b> Seasonal relationship between temperature and COVID-19 prevalence in Nairobi City .....	286
<b>Figure 15-15</b> Temporal analysis between temperature and COVID-19 prevalence in Nairobi.....	287
<b>Figure 15-16</b> Temporal analysis of COVID-19 and temperature in Nairobi .....	288
<b>Figure 16-1</b> Land cover types over the study area, .....	295
<b>Figure 16-2</b> Bias corrected predicted forage biomass compared with observed forage biomass for the March to May seasons from 2018 to 2019.....	300
<b>Figure 16-3</b> Bias corrected predicted forage biomass compared with observed forage biomass for the October to December seasons from 2018 to 2019.....	300
<b>Figure 16-4</b> Reliability diagram for observed relative frequency against predicted probability for October-December 2018 season ...	302
<b>Figure 18-1</b> Operations involved in manufacturing burnt clay bricks ...	340

## LIST OF TABLES

<b>Table 3-1</b> Types, threats and relationship of threats in the context of climate change .....	52
<b>Table 3-2</b> Vulnerability and readiness of East African states towards climate change .....	55
<b>Table 3-3</b> Temperature and precipitation change in Kenya and East Africa.....	59
<b>Table 5-1</b> Various daylength parameter values for the growing season at some sites in Kenya .....	96
<b>Table 5-2</b> Growing season mean daylength differences (min) between some sites in Kenya .....	98
<b>Table 6-1</b> Relevant good practices .....	109
<b>Table 6-2</b> Merits and demerits of most common climate risk screening tools .....	112
<b>Table 7-1</b> Content Analysis of Climate Adaptation Policies .....	148
<b>Table 11-1</b> Content Analysis of Climate Adaptation Policies .....	217
<b>Table 12-1</b> Motorisation rate in Kenya in the period 2015-2050.....	226
<b>Table 12-2</b> Fuel consumption and emissions by vehicle category and fuel .....	231
<b>Table 12-3</b> Average age of personal cars (PCs) imported to Kenya, 2018.....	232
<b>Table 15.1</b> Averaged Monthly from March 2020 to February 2021 .....	270
<b>Table 16.1</b> Seasonal multicollinearity diagnostic to determine the location of collinearity for rainfall, temperature and soil moisture....	298
<b>Table 18-1</b> Embodied energy in common materials .....	331

## LIST OF BOXES

<b>Box 3-1</b> Grassroots support for livestock herders in Kenya's Isiolo County.....	60
<b>Box 8-1</b> Climate change impacts .....	160
<b>Box 8-2</b> Policy Frameworks adopted by Africa .....	169
<b>Box 9-1</b> Extract from an interview with a Kenyan regarding gender, climate risk reduction and culture .....	184

## LIST OF APPENDICES

<b>Appendix 1</b> A Summary of Climate Risk Screening and Assessment Tools .....	128
<b>Appendix 2</b> Benefits of Risk Management Strategies .....	133

## EDITORS' NOTE

*Climate Change Threats to National Development and Policy Options for Kenya: Essays in honor of Professor Richard Samson Odingo* is a treatise on the impacts of climate change on the global natural environment, the human environment, and related human livelihood systems, as well as human security issues, to mention a few global concerns. The contributions reflect his long and illustrious career in climate science and geographical information in general. The late Professor Odingo taught and researched climatology, economic geography, agricultural geography, in which he did his doctoral thesis, geomorphology and remote sensing and the geographical information system. His role in the climate change debate spans more than three decades, most of them as vice chair of the Intergovernmental Panel on Climate Change (IPCC). Two of his contributions that remain unchallenged are the papers on **"The abnormal and unseasonal rains in East Africa"** published in 1961 and **"We can't solve poverty until we stop climate change"** in 2006.

Climate change has attracted international and national conferences, workshops, symposia, and protocols that are directed to generate new research tools and an emerging policy agenda for its mitigation and adaptation strategies that are locality-specific. In this context, universities and research institutions mandated to generate knowledge and disseminate such information that have become innovation hubs for climate change related issues will find the publication useful.

The audience of this book is broadly the primary and secondary markets and university teaching, with a research and innovation scope. The primary market includes university students and teaching staff who take and research the different aspects of climate change regimes, measurements, prediction and early warning techniques, adaptation strategies, etc. On the other hand, policy-makers and regional planners in government, and other personnel relating to security services, environmental conservation, rural settlements, and urbanization and its effects would find the book beneficial. International agencies, non-governmental organizations (NGOs), and community-based organizations, with an interest in determinants of the environment, community development, human security, and provision of basic services will find the book suitable for their work.

With regard to secondary markets, regional and international libraries will need the book for public readership. While universities in East Africa and the rest of the world should stock copies in their libraries and recommend it as a reference text for the various university teaching courses on climatology and meteorology syllabi for students. Finally, community-based organisations dealing with humanitarian aid in situations of frequent floods, droughts and extreme temperature effects, also need such information for their planning activities.

## ACKNOWLEDGEMENTS

The successful completion of this collection of essays would not have been possible without the invaluable contributions of numerous authors, each inspired by the mentorship of the late Professor Richard Samson Odingo. Their expertise and dedication have shaped this work, making it a meaningful tribute to Professor Odingo's legacy.

Special thanks go to Professor Alice A. Oluoko-Odingo, the wife of Professor Odingo and a colleagues to many of the authors. Her excellent academic contribution is noted in nthe number of papers she has authored and co-authored in the present collection showcasing her commitment to advancing gender and climate research. My co-editor Professor Elias E.H.O. Ayiemba who accepted my vision without knowing exactly the challenges of getting this work done. His unwavering encouragement and support were essential to seeing this project through to completion.

Lastly, I am deeply grateful to Research on Environment and Development Planning (REDPLAN) Consultants Ltd. for their financial support, which made this project possible. Their commitment to research and development is commendable and invaluable in furthering environmental scholarship.



## CHAPTER 1

# KENYA'S SECOND NOBEL LAUREATE: AN INTERVIEW WITH PROF. RICHARD SAMSON ODINGO

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SAM HOUSTON STATE UNIVERSITY AND AN ALUMNUS OF  
THE UNIVERSITY OF MASSACHUSETTS BOSTON'S GLOBAL  
GOVERNANCE AND HUMAN SECURITY PhD PROGRAM

### **Abstract**

In today's world, wicked problems such as global environmental challenges present a serious governance and human security challenge. Over the past three decades, climate change, loss of biodiversity, and desertification have emerged as arguably the three most prominent global environmental problems of the 21st century. Prof. Richard S. Odingo made a considerable contribution in the context of understanding and responding to these global environmental problems particularly climate change at the local and global levels. This chapter aims to highlight his numerous contributions and bring to the fore some of his last thoughts on such current topics as climate action, among others. The chapter is primarily based on a thematic analysis of interview data collected by the author during his PhD fieldwork in Kenya in 2016. The chapter documents the late professor's thoughts on a variety of salient topics including climate change adaptation/mitigation, community conservancies, pastoralism, the clean development mechanism, the science-policy interface, and sustainable development, among others. The chapter also documents rarely documented instances of real-time mentoring of graduate students by the departed academic giant.

**Keywords/phrases:** Global environmental problems, climate change, biodiversity, desertification, pastoralism, land use change, sustainable development, mentoring PhDs, Kenya

## Introduction

Nairobi, Kenya serves as the headquarters of the United Nations Environment Program (UNEP) – the world’s leading environment agency. In a country that plays host to the world’s leading environmental governance agency, it is not far-fetched to imagine having two citizens who are environment-themed Nobel Prize awardees. But there is no need to even imagine this because Kenya is home to two such laureates. The one that often readily comes to mind is the late Prof. Wangari Muta Maathai (Anbarasan, 2010). The other is the late Prof. Richard S. Odingo - a 2007 Nobel Peace Prize Laureate (shared)<sup>1</sup> -, who served as the vice chairman of the Intergovernmental Panel on Climate Change (IPCC) when the institution was awarded a Nobel Prize shared with the former U.S. Vice President Al Gore.<sup>2</sup>

This chapter is about Prof. Richard Samson Odingo, his scholarly contributions, and his thoughts on a variety of topics. The chapter aims to document some of his last thoughts on current and topical issues before his untimely demise (refer to IPCC, 2021 for his obituary). Through such documentation, the author hopes to add to the emerging body of literature focused on highlighting and understanding the scholarly contributions of the late professor. The chapter takes on a dialogue/conversational format to, among other things, preserve the authenticity of the late professor’s thoughts.

The conversation between the author and the late professor revolves around global environmental concerns including, but not limited to, climate change – one of the late professor’s pet subjects. The interview upon which the chapter is based was conducted and recorded by the author in 2016 at the University of Nairobi during his PhD fieldwork in Kenya.

The chapter is organized into four main sections namely, the introduction, methods, findings and discussion, and conclusion. In the next section, the chapter’s methodological aspects are described in detail.

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<sup>1</sup> The Nobel Peace Prize 2007 <https://www.nobelprize.org/prizes/peace/2007/summary/>.

<sup>2</sup> The Nobel Peace Prize 2007 <https://www.nobelprize.org/prizes/peace/2007/summary/>.

## Methods and Approach

This chapter is based on qualitative data collected in the summer of 2016 during the author's PhD fieldwork in Kenya. The chapter is specifically based on a key informant interview conducted by the author in Prof. Richard S. Odingo's University of Nairobi office. This is arguably one of the last, if not the very last, recorded academically oriented interview(s) the good old professor gave before his untimely demise.

The key informant interview was conducted, recorded, processed, analyzed and used in this chapter in accordance with the research ethics and compliance guidelines under Institutional Review Board (IRB) approval number 2016043 at the University of Massachusetts Boston and Kenya's National Commission for Science, Technology, and Innovation (NACOSTI) research permit number NACOSTI/P/16/62157/11713.

Interview data processing and analysis proceeded as follows. First, a transcript of the audio-recorded interview was generated by manually transcribing the entire interview aided by a combination of iTunes and an MS Word processor. Second, the Word file containing the interview transcript was then saved in the author's password-protected OneDrive where the audio file is safely kept as well. Third, the author created and saved an MS Word copy of the interview transcript that was then subjected to a first cycle of manual coding using emergent themes including public participation, climate change, the clean development mechanism, the Kyoto protocol, sustainable development, pastoralism, urbanization, land use change, colonialism, human-wildlife conflict, resource related conflict, mentoring, land degradation, the science-policy interface, proliferation of small arms, advice, and inspiration among others. Fourth, the emergent themes were then grouped into the following eight major categories employed in the second cycle of coding: (1) community-based natural resource management/governance, (2) challenges to pastoralism, (3) education and sustainability in the context of community wildlife conservancy, (4) exploitation of the nomadic people, (5) human-wildlife conflict and related resource-based conflict, (6) climate change action, (7) the science-policy interface, and (8) advice for PhD students and inspiration for current and future generations. The second cycle of coding was central in finding patterns and framing a coherent narrative around the key themes contained in the interview data (Saldaña, 2016). The next section of the chapter presents the findings and discussion, which is organized around these eight major thematic categories.

## Findings and Discussion

This section presents the chapter's findings and discussion. But before taking a deep dive into the substantive aspects of the section, it is important to note here that, at the time of this interview, the good old professor was battling a mild cough. Nevertheless, he insisted that I go ahead with the interview despite my request to push it back to a later date to allow him time to recover. He saw the interview as a way of paying forward and/or giving back to society despite his already several decades of excellent service locally and internationally.

The rest of this section presents the thoughts of the late professor on a variety of current and topical issues ranging from climate action to advice on how to finish a PhD. The section proceeds as follows. The first subsection presents his thoughts on community-based natural resource management/governance in the context of Kenya. The second subsection presents his thoughts on the challenges facing pastoralism in Kenya. The third subsection details his thoughts on education and sustainability in the context of community wildlife conservancy with reference to Kenya. The fourth subsection documents his thoughts on the exploitation of the nomadic people in the Kenyan context. The fifth subsection details his thoughts on human-wildlife conflict and related resource-based conflict. The sixth subsection highlights his thoughts on climate change action at the global and local levels with a particular focus on Kenya. The seventh subsection reveals his thoughts on the science-policy interface with a particular focus on the climate change issue area. Finally, the eighth subsection documents some of his advice for PhD students and offers inspiration for future generations.

Apart from the subsection headers, the rest of this section of the chapter is structured in an interview format with interviewer and interviewee portions denoted by italicization and non-italicization, respectively. In other words, italicized words/phrases denote the interviewer while non-italicized words/phrases denote the interviewee.

### **On community-based natural resource management/governance**

*What's your take on community-based natural resource management/governance particularly how it is practiced in Kenya?*

I think Kenya has moved ahead in the last 10 to 15 years. The government has come to a realization that you can't talk about development from the city. You must go to the rural areas... to the communities and get their view

about development. Even if you go with money, you need to convince them that the money is being used for their own good. Therefore, it is very important to get the trust of the community.

In this regard, there is work being done now by universities like this one, our university<sup>3</sup>. You see we're working on a project which is dealing with the Maasai... Maasai Mara. Maasai Mara is a very complicated ecosystem, which is surviving but completely threatened. Maasai land during the British colonial period was put as a reserve and non-Maasai people were prohibited from accessing the area unless they secured an entry permit from the colonial administration. This was the reality across the pastoral regions of Kenya including the Turkana area. You know, this was the colonial approach. That you do not disturb them [the pastoralists]. They keep their way of life. And you can only go there with permission. In fact, I was amazed that Dr. Leakey<sup>4</sup>, when we went to see him last week, was telling us that first you had to get permission from the government [to visit the Maasai Mara area during the colonial period].

So, things have changed. Under the new dispensation, (referring to the period following the promulgation of Kenya's 2010 Constitution to date) the pastoralists want to participate. And you know, today we have a devolved system of government which has given the counties like Kajiado, Narok... and of course when we talk about Laikipia, really, we are talking about the Maasai because they are the same people.

And even though they are not very well educated they are beginning to feel that they must not miss the bus. And so, successive administrations have been forced to pay attention to their needs. And of course, you do it by community. Like in this work that we are doing, you look at what we are saying about the Mararianda Community [refer to Ayiimba & Owuor, 2015 for more on this work]. [We are] encouraging pastoralist communities to become part of the movement towards sustainable development. But we agree that they are far behind. Because they still regard pastoralism as very important. And you see pastoralism requires a lot of land.

## **Challenges to pastoralism**

In the neighborhood of Nairobi, this idea of pastoralism is beginning to break down. For example, between here<sup>5</sup> and Namanga, there is a lot of encroachment by agriculturalists on the pastoral areas. They are buying up

---

<sup>3</sup> This refers to the University of Nairobi.

<sup>4</sup> This refers to the now late Dr. Richard Leakey.

<sup>5</sup> This refers to Nairobi.

land. Urbanization also plays a role. I don't know whether the same scenario is playing out in your area of study.

*Yes, I have encountered the same. Archer's Post – where I am based while conducting fieldwork in Samburu – is a small market center. But because of tourism and the presence of a British army camp<sup>6</sup>, etc., it is growing at a fast pace. And the Moyale road – the new road to the Kenya-Ethiopia border – goes through the place. All these contribute to its growth and expansion. The developments happening in Turkana, Marsabit... the wind power [plant construction] ... oil [drilling]. There are very many investors coming from outside to invest mainly in energy and stuff like that... solar... wind... so urbanization is creeping in.*

Yeah. In fact, I am so happy you have mentioned this. It is one factor that is going to change the lives of the nomadic people. And one thing I wanted to tell you is that there are people who sneak into these pastoralist areas... and they buy land. And sometimes they buy very large pieces of land, which is not controlled. It really should be controlled by the government. But the government is also... you know now they have gone to the County idea. So, they say that each County should manage their own affairs. And I don't know the area where you are working, where is the County headquarters?

*Maralal*

Maralal. If you're going to Maralal do you follow Thomsons Falls?

*There are at least two ways that one can use to get to Maralal. From Nairobi you can follow Nyahururu. Then Rumuruti. And then you go up to Maralal. Alternatively, you can go through Nanyuki. Then Isiolo. And then you go to Archer's Post where I am [based].<sup>7</sup> Then Wamba. And then from Wamba you go all the way up to Maralal. So, there are two main routes that you can use to get to Maralal. But the roads in Samburu County are in a very bad state/condition.*

No. You know the problem that we have is, like the British when they were here, they did not consider the need for roads in Maasai land... Other than dirt roads for people going to shoot wild animals. But now things have changed and the pastoralists, they are being dragged into the national affairs.

---

<sup>6</sup> British Army Training in Kenya (BATUK).

<sup>7</sup> I lived in Archer's Post during my fieldwork.

Of course, they're yelling. They are not in full sync with the rest of the country. But some politicians are taking advantage of the new Counties, literally to put the pastoralists in their pocket. This one you should be careful of when you use it.

*Ok.*

Yeah, but that is happening. So...

*Are the politicians attempting to radicalize the pastoralists?*

Yeah. So, that's really what's happening. And in the case of Nairobi... Kajiado, I wanted to tell you that the land is being bought in very large quantities by the agriculturalists and urban developers. For example, between here<sup>8</sup> and Kajiado, there are some parts which have been completely overtaken.

Initially, overtaken... I mean sold or taken by agricultural interests. But the people who are buying the land they are not really interested in agriculture. They are interested in urbanization.

*So, agriculture is just an entry point?*

Yes, they use agriculture as an entry point. So, this one is really impacting the communities in a bad way. I wouldn't say it is in a good way. In other words, the communities are actually being swindled. I don't know what is happening in Laikipia, but I believe it is the same.

*It is probably getting worse in Samburu too. Because in Samburu... Samburu is in three parts. There's the north, central and east. So, the east and north are predominantly group ranches. The central is a mix of group ranches and private land, which are owned by the big shots.*

The big shots like Kaparo.<sup>9</sup>

*Yes.*

I know Kaparo is one of the biggest ranchers there. The former speaker of the National Assembly.

---

<sup>8</sup> This refers to Nairobi.

<sup>9</sup> Ole Kaparo is a Kenyan lawyer and former speaker of the Kenyan parliament (today known as the National Assembly).

*Yes, and I think the Lesirmas of this world and some white guys too are up there. And some former military officers. The central area has an area that's very fertile. Green and lush. You'd think you're in Kericho. Like during my recent trip to Samburu, I found that the east is dry but central is very green. Yes, so people are buying land. In the east I was made aware of a big land scandal. The land adjudication officers are down in the east where I am based. Somebody bought land from a group ranch and sold it for about Ksh. 70 million. I don't know how big the land is. And then he used the money to build a house in Maralal. So, he has a big plaza in Maralal. So, now he is no longer owning that land because he sold it to some other person.*

*The land was bought in the east. Sold in the east. And proceeds of the sale invested in the central. In Maralal town. So, privatizing of the group ranches is becoming a big issue and the urbanization you were saying, I am realizing that people are beginning to fence their properties. You build a nice house and fence it.*

This is exactly the same as what we are noticing in the southern rangelands. You find it here. About fencing. Most of the fencing is done by agriculturalists. Because they come into a pastoral area [and] they may not have live-stock themselves. So, they are keeping away the pastoralists [and their live-stock] by fencing.

### **On education and sustainability in the context of community wildlife conservancy**

*Two things are apparent. One thing that is clear now, at least to me, is the correlation between poverty, a low level of education, and wildlife conservation. What I mean is that much of Kenya's wildlife conservation happens in regions with high poverty rates and low literacy levels as far as formal education goes. The other thing that is apparent based on my preliminary research findings is that, as literacy levels and economic outlook improve in these regions, private property ownership is gradually but surely taking root. In other words, educated and economically well-off pastoralists are ditching communal land ownership in favor of private land ownership, driving the noted rise in the breaking up of group ranches into individual parcels of land. What does this portend for the future of conservation models such as community wildlife conservancy, which depend very much on communal land ownership? To give a bit more context, a trend I am observing in my research in Kenya's northern rangelands is that education affords Samburu pastoralists – the population that my dissertation work focuses on*

*– better economic prospects in life and those who are economically successful tend to embrace private property ownership including private land. The community wildlife conservancy model is premised on the idea that land should be communally owned/managed. But once pastoralists are educated and they start owning private property, how sustainable is this model? So, if education leads to private land ownership, what does it mean for the sustainability of the community conservancy model? It seems, at least to me, that the community wildlife conservancy model practiced in Kenya's northern rangelands only thrives because of the current poverty or impoverishment of pastoral communities in the region including Samburu, Rendile, and Turkana among others. I would appreciate your thought(s) on this.*

It is a problem. We cannot deal with it now. But somebody will have to deal with it. Because, you see, according to the Constitution of Kenya, education is now a right, particularly primary education. And plans are underway to make secondary education a right as well in the next five years or so. And you know, once again they are exploited. When I was talking to this lady<sup>10</sup>, I mentioned to her the fact that between here<sup>11</sup> and Namanga there are exploiters who are neither agriculturalists nor pastoralists but just want to own land. So, they are purchasing large parcels of land for very little money.

### **Exploitation of the nomadic people**

So, there are swindlers. And these are some of the people who are encouraging the breakup of group ranches. I know in Samburu it is still not so bad.

*It is still not so bad. There is a group of Samburu elites who are pro-group ranches. Because they see that their people are not financially literate. So, when you give them money, the money doesn't make sense to them, and they end up misusing it. This makes them a prime target for swindlers. But there is a group of elites who are pro-subdivision. So, like you say, it is a big challenge. But Samburu is still... I don't think it has gotten to the levels you describe with regards to Kajiado or Narok.*

You know there was one time, I went to the Magadi area to see the Maasai land. And we found the hotel which they have there and about eight Maasai

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<sup>10</sup> This refers to one of the good old professor's graduate students who walked into the office when I was conducting the interview.

<sup>11</sup> This refers to Nairobi.

landowners who used to be part of the group ranches. These eight landowners had sold their land and now the only thing they are doing is drinking. They are perpetually drunk. And you know when you are drunk you can get away with anything, but also lose everything. So, they have lost their land. Some of them don't have any more land. Alcoholism is now destroying them. It is very sad. It is exploitation of the nomadic people.

*But these people who are buying the land, are they predominantly Kenyans? Or is it a mix of Kenyans and foreigners? Do you have an idea of the people buying land?*

Foreigners are restricted. Kenyans can buy land anywhere. Although in theory they are supposed to buy land within their county, but there is a phrase which is being used to enable people to buy land anywhere. And one of the areas which they have targeted is pastoralists' land. So, they are really breaking up the community through land purchase. What they have done... I think there has been an effort to survey the land. Look at the group ranches. Those that want to break up, once the land has been surveyed, they get titles.

*Individual titles?*

Yes. Individual titles. And when they have got the individual title, this is what they dispose of very quickly. And then they are stuck. So, there is exploitation of the nomadic people. And you find that the nomadic people are still keeping their culture in terms of marriage and things like that. Morans roaming around. During the moran season, you know, the circumcision, the morans just stay in the bush. And of course, they need a lot of money because they are eating meat all the time. They slaughter the animals and so on. So, after each round of moran creation, you find that there are communities which are really in a mess. And this is what is leading to the breakup of the group ranches. As a matter of fact, I was here<sup>12</sup> as Professor in this office in the 1970s when they had made proposals for the group ranches. And now I have seen what has happened. It is terrible.

*Yeah, it is a very sad thing. I was seeing something in my field site. On a group ranch, there are two kinds of people. There are the elites. And then the non-elite mwananchi.*

Normal pastoralists, yeah.

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<sup>12</sup> This refers to the University of Nairobi.

*So, you look at them and you just see a difference.*

There is a difference.

*There is a big difference. I doubt whether the group ranches are going to last even in Samburu either.*

No. The group ranches are more or less broken down. I don't know if you can look up this gentleman. We did a paper together. He is called Wayumba. Professor Wayumba. He has written quite a lot on group ranches.

*Thank you for the recommendation. I'll look up his work.*

So, you see, one of the things we were looking at is how we can assist these communities to educate them, actually. Including [educating them on] the value of land, and livestock. And when you come to livestock, we have a new development, which is very exploitative. It looks so good on the surface. Conservancy. It looks very nice, but it is destroying the environment. Because conservancies are really working with foreigners. You could say the landowners are the Maasai or Samburu. But these foreigners come and say, give me your land for three or four or five years and we will work as a conservancy. Because they need the cleared areas, so that they cut down the vegetation. They leave the place completely wild. And these wild areas are where [there is] grazing by the... first of all, their own livestock and then the wildlife.

Now what they do is they encourage the pastoralists to sell their livestock. So, it is a real system of exploitation. They give them some nominal money every month. And it is not enough.

*In Samburu, some told me they get Ksh. 1000 every year when they have their annual general meeting. Ksh. 1000 in one year.*

That's nothing. So, there is... we are going through a very difficult period because of this kind of exploitation. We had a talk with Dr. Leakey, he is not in favor of the conservancies. It is very problematic. And it is leading to the destruction of the environment. Because there is a conflict between the pastoralists and the conservancy owners. You see, the conservancy owners are interested in tourism. They bring the tourists to look at the elephants and, you know, the wildebeest and what have you. But they leave the land desolate.

Then the women in these areas return to charcoal burning because they think they have found a ready-made way of getting cash. So, one of the things that shocked us when we were in the field last year was to find that the women are very much involved in clearing the land.

*Is this Narok area?*

Yeah. Narok area. And then bringing charcoal to Nairobi. And the same is happening in Kajiado. Some years ago, we were doing research in Kajiado, and in fact it is the same. So, they make charcoal, and they bring it to Nairobi.

*And they have the beading enterprise. Do you think this is helping or would you consider it swindling as well?*

I think it is a way to stop the migrations [mobility associated with pastoralism]. Really, the people are slaves. Seriously speaking, they're slaves. So, they try to settle them and make them feel that if they make beads, they will sell some to the tourists. But the aim of the conservancy is really to use the land. Really, it is exploitation of the land.

I don't know who designed this conservancy idea. It was not Dr. Leakey because when Dr. Leakey was in charge of KWS<sup>13</sup> he was trying to use the areas for different kinds of development. Anyway, as you say now there are new considerations like windmills and what have you on the energy side. But if you are doing an estimation of energy produced – modern energy, wind energy and so on, and then the use of charcoal, for the people... not just the people who live in the community but Nairobi – you find that these people are really running at a loss. And the environment is being degraded at the same time.

It looks wonderful on the surface. You know they have bought Land Rovers. They go around with tourists, and they really cut down the vegetation. So, in that way they really are degrading the land.

### **Human-wildlife conflict and related resource-based conflict**

*So, maybe we can now talk about human-wildlife conflict? What is your take on it especially having been in the field for a long time? The problem of*

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<sup>13</sup> This refers to the Kenya Wildlife Service.

*human-wildlife conflict in Kenya and particularly in the rangelands. What are some of the drivers? And how can it be addressed?*

You see, the issue was partly solved, at least in theory, by the system of compensation. That if wildlife destroys your farm, for example, that is agriculturalists, then you would be compensated. But the compensation is nothing.

*And it is not forthcoming, at least, based on what I am being told on the ground.*

Yeah. It is not forthcoming. You're right. So, we have put more emphasis on wildlife and less on grazing, pastoralism. Grazing under the old order, made a lot of sense. Because the Maasai and Samburu [among others] owned all this land including Nairobi and so on. And during the dry season they would move to areas where there was good grazing [pastureland]. And when the rains came back then they would return. So, they had this pastoralism with a purpose using the natural forces. But this has now been completely broken down by the introduction of conservancies.

And then at one stage... you see the government policy has been shifting. There was this time they introduced... Excuse me let me just get some water.

*It's ok. I think after this one we can stop and then take a break.*

No. No. You can bring one or two more...

*Ok. You were saying there was a policy shift at some point.*

Yes, there has been a shift in government policy from the days of keeping pastoralist areas – arid and semi-arid – as closed districts. Actually, they were called closed districts. The northeastern province of Kenya was a closed district.

Then the next stage was the provision of watering places for the nomadic people. And this brought the pastoralists together. But the problem which came with it is there was overgrazing. Very severe overgrazing around the water points. But during the colonial period and the first 30 years after independence, the idea was to develop the ranches all over including the Somalia border. So, this was the idea and the government put a lot of investment in watering points for livestock.

Then came the stage of group ranches. Because the rest of the country was busy doing the subdivision of the land and land consolidation. And

when land consolidation was being done in the high potential areas, in the pastoralist areas they were encouraging the development of group ranches. In other words, they were now promising to take care of the pastoralists. The group ranches were registered under various groups. But it was very difficult to administrate.

So that was another stage.

Now, of course, there's the stage where there's the breakup of the group ranches. In fact, the group ranches which are remaining are very few now. So, like what we are seeing here in the Maasai Mara ecosystem, nomadic pastoralism remains a dominant form of livelihood where pastoralists align their livelihoods with changing climatic conditions and so on and so forth. So, this is our observation. And then, you see, there is the encouragement of the communities – pastoralist communities – to keep practicing pastoralism. And you know, one of the things they do is after a very bad drought, the pastoralists raid each other. They have cattle raiding. And there are a lot of rifles in that area... in the pastoral areas such as Laikipia and others. So, they raid their neighbors and the neighbors also stage counterraid. They have AK47s. And sometimes, as in the last two years, they fight with the police. They kill the policemen.

*I remember the Baragoi incident.<sup>14</sup> Up north in Samburu.*

Yes. They kill the policemen. Because traditionally, when they return from their wandering, they want to restock because the livestock die in very large numbers. When the wet season comes back, the pastoralists want to restock.

### **On climate change action: “there’s a lack of seriousness in making a big difference”**

*Finally, we can talk about climate change – arguably one of your favorite pet subjects. Perhaps we can begin with the Kenyan context and scale it up from there. What’s your take on what Kenya has done, is doing, or plans to do with regard to engagement in climate change talks as well as a response to climate change?*

Kenya is a little bit more moderate when it comes to a response to climate change. And because of the existence of the UNEP in Kenya, the developed countries like to show that they are doing something in Kenya. So, there is

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<sup>14</sup> <https://theworld.org/stories/2012-11-16/after-massacre-police-army-moves-Northern-Kenya>.