

Social dimensions of crane and wetland conservation in African rural landscapes: insights from Kenya, Uganda and Zimbabwe Mabhachi, O.

Citation

Mabhachi, O. (2021, July 15). Social dimensions of crane and wetland conservation in African rural landscapes: insights from Kenya, Uganda and Zimbabwe. Retrieved from https://hdl.handle.net/1887/3193882

Version: Publisher's Version

License: License agreement concerning inclusion of doctoral thesis in the

Institutional Repository of the University of Leiden

Downloaded from: https://hdl.handle.net/1887/3193882

Note: To cite this publication please use the final published version (if applicable).

Cover Page



Universiteit Leiden



The handle http://hdl.handle.net/1887/3193882 holds various files of this Leiden University dissertation.

Author: Mabhachi, O.

Title: Social dimensions of crane and wetland conservation in African rural landscapes:

insights from Kenya, Uganda and Zimbabwe

Issue date: 2021-07-15

Social dimensions of crane and wetland conservation in rural landscapes:

Insights from Kenya, Uganda and Zimbabwe

Colofon

Social dimensions of crane and wetland conservation in rural landscapes:

Insights from Kenya, Uganda and Zimbabwe

Lay-out and printing: GVO Drukkers & Vormgevers, Ede

ISBN: 978-94-6332-772-5

© Osiman Mabhachi

Front Cover Picture: Grey Crowned Crane on a nest located on a wetland near Lyantonde, Uganda. Photo taken October 2011, Osiman Mabhachi

Social dimensions of crane and wetland conservation in rural landscapes:

Insights from Kenya, Uganda and Zimbabwe

Proefschrift

ter verkrijging van de graad van doctor aan de Universiteit Leiden, op gezag van rector magnificus prof.dr.ir. H. Bijl, volgens het besluit van het college voor promoties te verdedigen op donderdag 15 juli 2021 klokke 15.00 uur door

Osiman Mabhachi

geboren te Bikita, Zimbabwe in 1974

Promotoren:

em.prof.dr.ir. W.T. de Groot (Radboud Universiteit Nijmegen) prof.dr. G.R. de Snoo

Promotiecommissie:

prof.dr. J.C. Biesmeijer (Naturalis Biodiversty Center)

prof.dr. P.M. van Bodegom

prof.dr.ir. H.H. de Iongh (Universiteit Antwerpen)

prof.dr. G.A. Persoon

prof.dr. H.A.C. Runhaar (Universiteit Utrecht)

dr. D.J.R.M. Snelder (Vrije Universiteit, Amsterdam)

Preface

The genesis of my PhD research and subsequent compilation of this thesis is intertwined with my professional career development.

I was introduced to the world of cranes when I was hired by BirdLife Zimbabwe to fill a newly created position of Crane Conservation Officer in April 2003. I had previously spent almost four years working as a Graduate Research Assistant at the University of Zimbabwe, attached to a research project aimed at evaluating the effectiveness of soil and water conservation techniques in agricultural fields in the semi-arid Chivi District, southern Zimbabwe. During that time, I spent time interacting with small-scale farmers, community leaders, agricultural extension officers and agribusiness dealers (input suppliers and product buyers). As we conducted our research activities, we acknowledged farmers as land users, capable of making decisions and act in ways that would protect soil and water resources. This was my first exposure to community-based approaches to environmental problem solving, an experience that helped me appreciate the importance of social skills in natural resource management. The community engagement experience I gained working with farmers and other stakeholders along the agricultural value chain became the professional strength that helped me to be hired by BirdLife Zimbabwe.

Joining BirdLife Zimbabwe came with new professional challenges, imperatives and expectations. Having been trained as an Agricultural Engineer at undergraduate level, I had to come to terms with the requirement that I would deal with issues outside the realm of my undergraduate training. I had to familiarise myself with the biology of cranes and the ecology of wetlands. During my induction, my manager jokingly informed me that mastering species biology, habitat ecology and conservation theories would not be the only major challenges. According to him, the challenge would be to effectively apply my social skills to entrench a new conservation ethic among newly resettled farming communities to ensure the coexistence of cranes and people in a landscape that was increasingly being transformed. He stressed that my first task was to read widely, covering topics such as conservation biology, landscape ecology, species surveys and habitat assessments.

The project that BirdLife Zimbabwe hired me to lead was to be implemented in the Driefontein Grasslands, a landscape that supports Zimbabwe's key populations of Grey Crowned and Wattled Cranes. Between 2000 and 2002, sweeping land ownership changes took place as "black"

subsistence farmers settled in the area following the exodus of "white" commercial farmers, under Zimbabwe's fast-track land reform programme. For decades, cranes had thrived on privately-owned livestock ranches, managed under rotational grazing systems, characterised by minimal human presence and virtually no wetland cultivation. Three years after being resettled in the area, farmers were using wetlands that contained crane breeding sites for vegetable gardening and communal livestock grazing. This was a cause for concern for BirdLife Zimbabwe as the introduction of crop farming in wetlands would inevitably affect crane breeding habitats. My role was to engage the relevant stakeholders (resettled farmers, village leaders, environmental and agricultural extension officers and local district officials), sensitising them on the need to protect cranes and curb wetland degradation. The main concerns then included agricultural encroachment into wetlands, uncontrolled fires during the dry season that posed a risk to crane nests and chicks and general human disturbance to breeding pairs. Unbeknown to me then, the need to understand human-crane interactions and the quest to develop effective community-based solutions to threats to cranes and wetlands would become my PhD research focal areas eight years later.

During my four-year stint (2003–2007) as a Crane Conservation Officer, I facilitated crane and wetland conservation awareness activities, promoted crop farming in uplands as an alternative to wetland cultivation, conducted surveys to determine crane population status and breeding success and assessed threats to cranes and wetlands annually. Linkages between the stakeholder engagement process and conservation impacts were not readily discernible initially. However, by 2007, internalisation of conservation messages by community members and support from local community leaders and district authorities were becoming evident. Crane conservation increasingly became a subject for discussion at village meetings, in schools and at district-level natural resource management forums. Through crane and wetland surveys, nesting and fledging success and maintenance of suitable breeding conditions attributable to actions by individuals, households and the communities were documented. Looking back, I acknowledge that in defining and celebrating project successes, many assumptions were made. Not much was done to gain deeper insight into social and ecological factors contributing to project successes. Constraints to effective reduction of threats to cranes and wetlands were not documented. These became some of the knowledge gaps that I would address through this PhD research.

I moved away from crane conservation for a year (October 2007 - September 2008) when I was pursuing MSc Environmental Management studies at the University of Wolverhampton, United Kingdom. I returned after I was offered a position to coordinate a regional crane conservation programme in November 2008. I joined the International Crane Foundation (ICF)/Endangered

6

Wildlife Trust (EWT) Partnership as a Community Projects Coordinator. My brief was to provide technical support to country teams in the design and implementation of crane and wetland conservation projects, ensuring that community-based conservation slant, focusing on Kenya, Uganda and Zimbabwe. By that time, I was already aware of my gradual transition from being an Agricultural Engineer to an Environmental Social Scientist. My appointment as a Community Projects Coordinator marked the beginning of my deeper academic interest in the social dimensions of species and habitat conservation, which culminated in this thesis.

In 2009, I visited project sites where crane conservation activities were already underway and traversed other wetlands that supported nationally significant populations of cranes in Kenya and Uganda. These visits opened my eyes to the myriad of challenges associated with promoting a crane and wetland conservation agenda in extensively transformed landscapes. I also observed the similarities and differences in landscape characteristics, social contexts and natural resource governance systems in the two East African countries. After reflecting on these observations in East Africa and my previous experiences in Zimbabwe, I began to formulate questions that needed to be addressed to address knowledge gaps. Broadly, I formulated three questions. First, did we know enough about the nature and drivers of human-crane interactions to be able to develop locally acceptable and implementable project strategies to address threats to cranes and wetlands effectively? Second, Project Officers in Kenya and Uganda were, as I had done in Zimbabwe, already engaging local communities in their conservation outreach, but were they using the right approaches? Lastly, were there any emerging lessons, from a community engagement perspective, that could be discerned from the past or ongoing projects in the three countries? These were the broad research questions that I included in the initial PhD research proposal I submitted to the Institute of Environmental Sciences, Leiden University, in June 2009. Building on the positive feedback from Professor Wouter de Groot, who would later become my PhD Supervisor, I applied for a Nuffic PhD Scholarship in May 2010. I received a positive response three months later. This paved way for the formulation of a detailed research budget, development of data collection schedules, planning of trips to the Netherlands for supervisory support, formulation of modalities on how to balance conservation work and PhD study. After registering as a PhD student in January 2011, I continued to fulfil my role as a Community Projects Coordinator.

As I was developing the research framework, I realised that I would need to adopt a neutral and objective stance since my research would involve critiquing the very projects and field conservation approaches, I was promoting as a Community Projects Coordinator. My research subjects (wetland user groups, local community leaders, government officials, partner organisations) were

people with whom I had developed personal friendships and professional networking linkages. The data collection and analysis processes were also not straightforward as it involved piecing together and making sense of facts, figures, experiences, narratives, perceptions and sentiments. Ultimately, the process of writing this thesis proved to be a long but intellectually stimulating journey, which helped me deepen my understanding of the social dimensions of conservation in human-dominated landscapes.

8

Contents

Introduction	1
Abstract	1
1.1. Species decline as a global environmental problem	13
1.2. Approaches for understanding and addressing species decline	2
1.3. Relevance of the study	2
1.4. Research questions addressed	2
1.5. Fieldwork periods	29
1.6. Thesis structure	3
References	3
Narratives of Grey Crowned Crane habitat loss in Kenya, Uganda and Zimbabwe	4
Abstract	4
2.1. Introduction	4
2.2. Methods	48
2.3. Results	60
2.4. Discussion	74
2.5. Conclusions and recommendations for conservation planning	80
References	8
Cranes, communities and conservation: Exploring the linkages in the Driefontein Grasslands, Zimbabwe	9
Abstract	9
3.1. Introduction	9
3.2. Methods	9
3.3. Results	10
3.4. Implications for human-crane coexistence	120
3.5. Conclusions	12
References	12
Twenty-five years of community-led crane and wetland conservation: Learning from social processes in western Kenya	13!
Abstract	13
4.1. Introduction	
4.2. Methods	
4.3. Results	
4.4. Lessons for integrating social dimensions into conservation project planning processes	
4.5. Conclusions	

References	. 169
Community-based crane and wetland conservation: Lessons for institutional development from a decade project experiences in south-western Uganda	
Abstract	
5.1. Introduction	
5.2. Methods	. 189
5.3. Results	. 201
5.4. Lessons for institutional development	. 214
5.5. Conclusions and general implications	. 222
References	. 225
Securing the future of cranes in human-dominated landscapes in Africa: A synthesis of what works	. 233
Abstract	. 233
6.1. Introduction	. 233
6.2. The five recommendations	. 241
6.3. Elaborating the model	. 254
6.4. Final remarks	. 259
References	. 261
Summary	. 267
Samenvatting	. 273
Acknowledgements	. 279
Curriculum Vitae	281