THE SCHOOL FOR FIELD STUDIES

Human Dimensions of Conservation
SFS 3071

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This syllabus may develop or change over time based on local conditions, learning opportunities, and faculty expertise. Course content may vary from semester to semester.

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Course Overview

The concepts of human dimensions in conservation dates back to Aldo Leopold, one of the key pioneers of land ethics and conservation. Conservation is a complex undertaking and partly entails involving humans. It has therefore increasingly become important to address or relate human dimensions to conservation and management of natural resources. This course will examine the relationship between people, the environment and associated natural resources. In the process, it will explore how people's behavior, values and knowledge, influence and are affected by decisions on management of natural resources and conservation of wildlife. It will use social science knowledge and tools to effectively incorporate societal values into conservation planning and decision-making, and to build stronger and more diverse partnerships. Students will also learn human dimensions concepts, the tools and methods that can be used in conservation outreach and communication.

This course will focus on the human dimensions on conservation in the Amboseli Ecosystem in the South-eastern rangelands of Kenya. Students and Faculty will examine the cultural, economic, political and social context of the Maasai people and other ethnic groups in relationship to wildlife and natural resources utilization and conservation. To understand the current and future management and conservation of wildlife and other natural resources in the region, students will also examine the influence of traditional beliefs and attitudes in natural resource use and conservation practices. The influence of modern lifestyle, conservation and management practices, national policies and laws as well as land uses and socio-political and economic changes among the Maasai people will be evaluated. Specifically, human dimensions of conservation issues will focus on the Maasai Group Ranches, national parks, wildlife sanctuaries or conservancies especially those in the former Kimana Group Ranch, and the expansive private land parcels along the Kenya-Tanzania border. At the end of the semester, students will use and apply the human dimensions aspects learned in their directed research work which will be guided the Faculty in-charge of the course. The findings will be presented to diverse stakeholders comprising of community members, local leaders, national and Kajiado County government officials.

Learning Objectives

The Amboseli Ecosystem is one of the key landscapes in Kenya rich in free ranging wildlife populations. However, the future of the wildlife, the rangelands which they live in and other critical resources like water is uncertain due to rapid changes in human population, land use, land subdivision, Maasai culture, traditional beliefs and behaviors regarding use and conservation of natural resources. This course will see students and Faculty use strategies and methods in social sciences to understand the complex and dynamic relationship between people, the environment, wildlife and natural resources in the ecosystem. The ultimate goal will be to understand what factors influence people to use natural resources sustainably, why they conserve natural resources or not. The specific learning objectives will be:

1. Examine the traditional and historical Maasai people's relationship with the environment, wildlife and natural resources; their belief systems (cultural, traditional beliefs and practice)
2. Examine changes in Maasai lifestyle, culture, traditions and belief systems including causal factors, and their influence on their interaction/relationship with the environment, use and conservation of natural resources (land, pasture, water, wildlife and plants)
3. Understand changes in human-environment interactions in the ecosystem and their influence on utilization of natural resources and co-existence between humans and the environment

4. Examine how the Maasai people traditional livelihoods are threatened due to ever-changing natural conditions and continuous push for modernity
5. Understand constraints to sustainable use, conservation of wildlife and other natural resources among resource-poor rural communities
6. Examine how the socio-economic, cultural and political context of local communities can influence solutions to land, water and natural resources use problems and wildlife conservation
7. Impart skills in real-world environmental problem solving, inspire critical and independent evaluation and analysis in regards to environmental and natural resources conservation

Case Study

Overview

The Amboseli Ecosystem where this course will be undertaken was historically inhabited by the pastoral Maasai people, one of the few ethnic groups in Kenya who are considered to be natural ecologists and strict conservationists. It's mainly a dry rangeland with scanty and unreliable rainfall ranging from 300-800mm per year, which favors pastoralism and wildlife conservation. However, immigration into the region by agricultural communities in the 1970s and 1980s saw introduction of farming as a new land use along the wet and arable slopes of Mt. Kilimanjaro along the Kenya-Tanzania border. Thereafter, irrigated agriculture mostly for commercial purposes was introduced in the water systems of the Maasai Group Ranches where rain-fed farming is not possible. This lifestyle shift has seen pastoralism nearly replaced and dominated by agro-pastoralism among the Maasai.

The conservative nature of the Maasai in Amboseli has seen them retain some of their traditions, culture, belief systems and lifestyle but this is rapidly changing. Their lifestyle and belief systems which promoted wildlife and environmental conservation, sustainable use of natural resources like water, pasture and plant resources have changed significantly, to the detriment of their livelihoods and that of the environment. Further, there's too much pressure from their elites, local leaders, non-Maasai's and the national government for them to embrace modernity to enhance their socio-economic and geo-political standing in the society. Regrettably, this has precipitated a lot of negative impacts to the environmental, wildlife and other natural resource, which might undermine their livelihoods and socio-economic welfare. Resolving these shifts in resource use, and promoting sustainable natural resources use and environmental protection is urgent

The School for Field Studies considers the case study approach as an innovative method for studying such complex interrelated natural resources and human issues in the Amboseli Ecosystem. It presents students and Faculty with a good opportunity to examine human dimensions on conservation using a systematic, experiential and interactive approach. Therefore, this case study will enable students to understand how people's behavior, values and knowledge, influence and are affected by decisions on management of natural resources and conservation of wildlife. It will also allow them to use social science knowledge and tools to effectively incorporate societal values into conservation planning and decision-making. In particular, the knowledge and skills acquired in the process will assist to answer the following case study question:

How can changes in land use, natural resources utilization and availability in the Amboseli Ecosystem be managed to promote socio-economic well-being of local communities whilst safeguarding and promoting natural resources conservation?

Case Study Background

This case study will focus on the conservative Maasai people in the Amboseli Ecosystem, South eastern dry lands of Kenya. The community is currently at a cross-road between traditional lifestyle and modernity, which presents students and Faculty with an opportunity to examine how changes in human behavior, knowledge and values affect their interactions with the environment and natural resources; and how this has in turn negatively impacted their welfare and livelihoods. The ecosystem is predominantly a dry land which strabdles along the Kenya-Tanzania borderland. It comprises of communally owned group ranches inhabited by the Maasai people, privately owned land along the Kenya-Tanzania border mostly owned by non-Maasais, parks (Amboseli National Park) and numerous private wildlife conservancies. It also neighbors Tsavo West and Chyulu Hills N. Parks, which are part of the expansive Tsavo Conservation Area. In spite of rapid land use changes, land subdivision, increase in human population, and changes in Maasai lifestyle, culture and traditions, the region is still endowed with free ranging wildlife populations and other natural resources.

The biggest challenge in the ecosystem is how to harmonious co-existence between people and wildlife, and promote sustainable use of natural resources which are the nexus of local livelihoods. Wildlife, water, plant and range resources are some of the major resources found in the region, and which most people depend on for their livelihood needs. However, environmental degradation and misuse use water, land, pasture and plant resources are rampant in spite of numerous interventions by the government, community based organizations (CBOs) and conservation non-governmental organizations (NGOs). Over-abstraction of water and large scale water diversion, illegal bush meat and human-wildlife conflicts are widespread. This calls for behavioral and attitude changes among the local communities if they are to embrace sustainable and effective use of these resources.

The major issue in Tsavo West and Chyulu Hills is how to balance local community natural resource needs (among the Maasai and Kamba people), watershed services and conservation of wildlife. Tsavo West N. Park is an important elephant conservation area in the country, and it's endowed with many other wildlife species. Although it's one of the largest protected areas in the region and Kenya, human-wildlife conflicts and illegal bush meat are very prevalent. Livestock incursions mainly by the Maasai of the Amboseli region are also prevalent, and it's usually a source of conflict and bad relationship between locals and the park management. Communities living around the park incur a lot of economic losses and destruction of their property due to wildlife. Human deaths, injury and livestock depredation are also prevalent, and present a big challenge for sustainable wildlife conservation and co-existence between humans and wildlife. Generally, the deleterious human-wildlife interactions in the region have created a negative attitude towards the park, wildlife and its conservation.

Chyulu Hills were historically owned and used by the Kamba and Maasai people as a dry season grazing area, and for extraction of herbal medicine and contraction materials for their houses. However, this access and resource extraction is prohibited due to designation of the hills as a protected area, which has then created a lot of conflict between the park management and these communities. Illegal livestock grazing by the communities is rampant, and it's usually accompanied by burning the landscape to stimulate growth of rush and high nutritious forage for the livestock. Charcoal burning and illegal

logging by the Kamba people are also prevalent, and are very destructive to the native vegetation. Collectively, the inappropriate human activities in the hills are destructive to its environment and vegetation cover, thereby threatening the critical watershed services associated with the hills.

Assessment

No.	Assessment Item	Due Date	Value (%)
HDR 07	Maasai attitudes towards land, wildlife and other resources (Report based on questionnaire)	XX	15
HDR 09	Community water access and use in the Amboseli Ecosystem (Report based on interviews and surveys and literature review)	XX	20
HDR 14	Livestock markets and trade practices among the Maasai	XX	15
HDR 25	An assessment of tourism benefits by local communities (Report based on interviews and surveys and literature review)	XX	20
	Final exam	XX	30
	TOTAL		**100**

Grading Scheme

A	95.00 – 100.00%	B+	86.00 – 89.99%	C+	76.00 – 79.99%	D	60.00 - 69.00%
A-	90.00 – 94.99%	B	83.00 – 85.99%	C	73.00 – 75.99%	F	59.99 - 0.00%
		B-	80.00 – 82.99%	C-	70.00 – 72.99%		

General Reminders

Readings: Assigned readings and hand outs (exercises/assignments) will be available prior to the scheduled activities. Course readings must be read and clarification on issues sought where necessary since ideas and concepts contained in them will be expected to be used and cited appropriately in assigned course essays and research papers.

Plagiarism: Using the ideas or material of others without giving due credit – is cheating and will not be tolerated. A grade of zero will be assigned for anyone caught cheating or aiding another person to cheat either actively or passively (e.g. allowing someone to look at your exam).

Deadlines: Deadlines for written field exercises and other assignments are posted to promote equity among students and to allow faculty ample time to review and return assignments in good time. As such, deadlines are firm and extensions will only be considered under the most extreme circumstances.

Late assignments will incur a 10% penalty for each hour that they are late. This means an assignment that is five minutes late will have 10% removed an assignment that is one hour and five minutes late will have 20% of the grade deducted.

Participation: Since we offer a program that is likely more intensive than you might be used to at your home institution, missing even one lecture can have a proportionally greater effect on your final grade simply because there is little room to make up for lost time. Participation in all components of the program is mandatory because your actions can significantly affect the experience you and your classmates have while at CWWS. Therefore, it is important that you are prompt for all course activities.

Course Content

Instructor: Moses M. Okello, Ph. D.
Type- **L**: Classroom lecture, **FL:** Field lecture, **FE:** Field Exercise, **D:** Class discussion
*Readings in **Bold** are required

No	*Titles of Lectures & Field Exercises*	*Instructor(s)*	*Type*	*Time (hrs)*	*Readings*
HDR 01	**Introduction to human dimensions, ethnic composition and landscape use in the Amboseli Ecosystem:** This lecture will introduce students to the human aspects and ethnic composition of the ecosystem, their spatial distribution, lifestyles and use of the landscape. The environmental and natural resources characteristics of the region will be outlined by the Faculty in-charge of the Wildlife Ecology and Techniques in Resource Management Courses	MO	L	1.5	No readings
HDR 02	**Introduction to concepts and principles of human dimensions of natural resources conservation.** An in-depth definition and understanding of concepts of Human Dimensions in resource management and justification for understanding human nature and needs in resource conservation	MO	L	1.5	**Bennett et al. (2017).** **Sterling et al. (2017).**
HDR 03	**Introduction to Mbirikani- Kuku-Kimana area**: A drive through field lecture in the former Kimana Group Ranch, Kuku and Imbirikani Group Ranches during which Faculty will make strategic stops to demonstrate to the students the following; land uses, water resources availability, Maasai homesteads and their lifestyle and general state of the landscape environment. This lecture and HDR 01 will	MO	FL	3	No readings

	collectively ground the students in understanding the humans dimensions of the ecosystem and their influence on conservation				
HDR 04	**Participatory Learning and Action (PLA)**: The lecture will explore the genesis of PLA, pillars and application in research, principles and use of social science methods and tools in understanding human dimensions on conservation	MO	L	1.5	**Lelo Francis et al. (1995).** **Kumar (2002).**
HDR 05	**Social research survey techniques:** An overview of how to design and conduct social surveys (i.e. designing and administering questionnaires, how to conduct key informant interviews and focus group discussions). Sample requirements for household surveys, informant interviews and focus group discussions	MO	L	2	No Readings
HDR 06	**Maasai attitudes towards land, wildlife and other natural resources I:** This lecture will focus on how modern conservation and establishment of protected areas (parks and reserves) have affected the lifestyle, socio – economic welfare and livelihoods of the Maasai people. It will also examine how these changes have negatively changed the Maasai attitudes towards protected areas, wildlife and its conservation	MO	L	1.5	**Leela et al. (2017).** **Lyamuya et al. (2014).** **Rodriguez (2007).**
HDR 07	**Maasai attitudes towards land, wildlife and other resources II.** A field exercise on assessing the Maasai community attitudes towards wildlife and conservation, and key aspects shaping the dynamics in their attitudes, and implications for wildlife conservation. Faculty will guide students how to; design a closed and open ended questionnaire, administer the questionnaire in households, synthesis and analysis of the data information gathered. Each student will write a report using the results for grading	MO	FE	5	**Shannon et al. (n.d)** **Thompson, Michael & Katherine Homewood (2002).**
HDR 08	**Community water access and use in the Amboseli Ecosystem I.** A lecture on water scarcity in Kenya and the world, innovations and government policies that aim to improve clean water access to	MO	L	1.5	**Kiringe et al. (2009).**

	society and importance of water in settlement and livelihood patterns with emphasis on Amboseli Area, social methods of assessing resource need and access field procedures and tools will be undertake as an introduction to the field exercise (HDR 09)				
HDR 09	**Community water access and use in the Amboseli Ecosystem II:** In this FE, students will assess community perceptions in regards to water access, usage and constraints to accessing sufficient and clean water for their livelihood needs. Their views on the future of water resources in the region will also be determined. Faculty will guide students how to; design a closed and open ended questionnaire, administer the questionnaire in households, synthesis and analysis of the data information gathered. Each student will write a report using the results for grading	MO	FL	5	**Kiringe et al. (2009).**
HDR 10	**Land and natural resource tenure regimes in Kenya**: In Kenya land and resource tenure is still at its nascent stage. Considering its implication on natural resource conservation and management, this class charts out the current arrangement while at the same time highlighting its impact on wildlife and natural resources conservation, and the Maasai people livelihoods	MO	L	1.5	**Mwangi. (2009).** **Mwangi. (2007).** **Ogolla and Mugabe. (1996).**
HDR 11	**The impact of modern land tenure on the Maasai**: This lecture will build on HDR 10, but with more focus on the historical land tenure among the Maasai, evolution of Maasai communal group ranches, their management and impacts of land tenure changes on pastoralism, livelihoods, wildlife and natural resources conservation	MO	L	1.5	**Kimani and Pickard (1998).** **Galaty (1992).**
HDR 12	**Land use changes and their impact on natural resources conservation in the Amboseli Ecosystem:** The lecture will explore the reasons and trend of land use changes from pastoralism to agro – pastoralism and implications for natural resource conservation in Amboseli	MO	L	1.5	**Groom and Western (2013).** **Campbell et al. (2003).** **Ntiati (2002).**

HDR 13	**Human-wildlife conflicts in the Amboseli Ecosystem**: Students will assess the typology of HWCs among smaller scale farmers, their causes, patterns, impacts and mitigation. Faculty will guide students how to; design a closed and open ended questionnaire, administer the questionnaire in households, synthesis and analysis of the data information gathered	MO	FE	5	**Manoa, Owino David & Francis Mwaura (2016).** **Okello (2005).**
HDR 14	**Pastoral practices among the Maasai and its influence on conservation:** The lecture will explore the historical and current pastoral practices among the Maasai people, and how they influence conservation of pasture, rangeland integrity, water and wildlife resources	MO	L	1.5	**Hauck and Rubenstein (2017).** **Western and Nightingale (n.d)**
HDR 15	**Livestock markets and trade practices among the Maasai:** The FE will assess the marketing and sale of Maasai livestock, and its contribution their livelihoods and economy. It will also explore types of markets used by the Maasai and the constraints or challenges faced by the community in accessing markets for their animals. Faculty will guide students how to; design a closed and open ended questionnaire, administer the questionnaire in households, synthesis and analysis of the data information gathered. Each student will write a report using the results for grading	MO	FE	3	**Ngochembo (2011).** **Bailey et al. (1999).**
HDR 16	**Livestock predation consolation schemes in Maasai-land and their influence in wildlife conservation:** The lecture will focus on the genesis and purpose of predation consolation schemes in Maasailand, stakeholders involved, constraints faced and impacts on attitudes towards large predators and other wildlife species	MO/Guest	L	1.5	**Blackburn et al. (2016).** **Rodriguez (2007).**
HDR 17	**The role of Maasai indigenous knowledge in pasture and plant resource use:** Lecture will provide students with an overview on the historical Maasai indigenous knowledge in regards to use of plant and pasture resources, how the knowledge is passed on in the community and current threats to	MO	L	1.5	**Kiringe and Okello (2005).** **Kiringe (2005).**

	this knowledge				
HDR 18	**Changes in Maasai culture and social system, and its influence on conservation:** Students will learn key aspects of Maasai culture, traditions, beliefs and social system and their influence on natural resources conservation	MO/Guest	L	2	**Zahra et al. (2014).** **Kiringe, John (2005).** **Seno and Shaw (2002).**
HDR 19	**Communal ownership of natural resources or privatization in Amboseli?** Lecture will explore natural resources ownership, use and management among the Maasai and the effects of current trends towards land and resources privatization	MO	L	1.5	Kideghesho (2010). **Nelson and Agrawal (2008).** **Hackel (1998).**
HDR 20	**The role of the Chyulu Hills as a resource reservoir for the Amboseli Maasai: An e**xamination of the historical and current importance of the Chyulu Hills to the Maasai and their livestock. It will also evaluate key constraints to access and resource use in the hills	MO	FL	1.5	**Okello and Tome (2007).**
HDR 21	**Human-elephant conflicts and mitigation in the Tsavo conservation area:** Will examine typology of human-elephant conflicts in the TCA, their causes, mitigation and influence of elephants conservation	MO/Guest	L	2	**Kamau (2017).** **Makindi et al. (2014).** Smith and Kasiki (2000).
HDR 22	**The role of tourism in Kenya's vision 2030 and its contribution to wildlife conservation and the economy:** Tourism is a key pillar in Kenya's economic growth and it's envisioned to contribute significantly in transforming the country to a middle income nation. This topic will therefore examine if this sector has the capacity to do this, and whether it also contributes to enhanced conservation of the country's natural resources	MO	L	1.5	**Valle and Yobesia. (2009).** **Akama. (n.d)**
HDR 23	**Tourism products and diversification Kenya and East Africa:** The topic examines the typology of past and emerging tourism products in Kenya other East Africa		L	1.5	**Okello et al. (2001).** **Okello et al. (2005). Tourism potential…**

	countries, and contribution of the tourism sector to the national and local economies. It will also evaluate whether revenue generated through tourism contributes to enhance conservation of wildlife resources and ecosystems where they live-in, and whether it changes community attitudes towards conservation				
HDR 24	**Tourism and its potential in the Amboseli region**: This lecture will focus on the nature of tourism activities and potential in the Amboseli region. It will also assess the role of private and community wildlife conservancies in tourism and associated economic potential	MO	L	1.5	**Manyara and Eleri (2007).** **Okello et al. (2003).**
HDR 25	**Tourist's perspectives on Amboseli National Park and implications for economic role of the park**: In this FE, student will interview tourists visiting the park, and assess their perspectives, needs and expectations. Faculty will guide students on how to design the survey and administer questionnaires to tourists, including how to synthesis and interpret the data and information gathered. In the process, they will acquire social science and data analytical skills		FE	5	**Okello et al. (2008). The relative importance…** **Okello et al. (2008). Tourism attractions…** Okello (2005). A survey of tourist…
HDR 26	**An assessment of tourism benefits by local communities:** The lecture will examine the nature of benefits accrued from the tourism sector in the Amboseli region by locals especially the Maasai. It will also assess how locals participate in the tourism sector (e.g. through cultural *bomas*, curio shops and space leasing for tourism investors), and whether the benefits obtained have had a positive change in their attitudes towards conservation	MO	FL	4	No Readings
HDR 27	**Human dimension issues and their contribution to natural resources conservation in the Amboseli Ecosystem**: This is a student's discussion held at the end of the course, and moderated by the Faculty. The class will be divided into smaller groups, and the Faculty wil provide guidance on how to do the discussion, which will mainly focus on their views	MO	D	2	No readings

	regarding the learned and observed human dimensions in the ecosystems and how they influence conservation				
	Total Contact Hours			**60**	

Reading List

*Readings in **Bold** are required

Akama. (n.d). The efficacy of tourism as a tool for economic development in Kenya

Bailey et al. (1999). Livestock markets and risk management among East African pastoralists: a review and research agenda

Bennett et al. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. Biological Conservation, 205:93–108

Blackburn et al. (2016). Human–wildlife conflict, benefit sharing and the survival of lions in pastoralist community-based conservancies. Journal of Applied Ecology, 53, 1195–1205

Campbell et al. (2003). Root causes of land use change in the Loitokitok Area, Kajiado District, Kenya. Land Use Change Impacts and Dynamics (LUCID) Project Working Paper 19. International Livestock Research Institute, Nairobi, Kenya

Galaty (1992). The land is ours: social and economic factors in the privatization, sub – division and sale of Maasai ranches. Nomadic peoples, 30: 26-40

Groom and Western (2013). Impact of land subdivision and sedentarization on wildlife in Kenya's Southern Rangelands Rangeland Ecology & Management, 66(1):1-9

Hackel (1998). Community conservation and the future of Africa's wildlife. Conservation Biology, 13: 726 – 734

Hauck and Rubenstein (2017). Pastoralist societies in flux: a conceptual framework analysis of herding and land use among the Mukugodo Maasai of Kenya. Pastoralism: research, policy and practice, 7(18): 1-30

Kamau (2017).The political ecology of human-elephant relations: comparing local perceptions of elephants around Chyulu Hills and Mount Kasigau in southern Kenya. Journal of Political Ecology, 24: 800-820

Kideghesho. (2010). Wildlife Conservation in Tanzania: Whose Interest Matters? In: *Conservation of Natural Resources. Some African and Asian Examples*. Tapir Academic Press, Trondheim. pp 82 – 110

Kiringe, John and Okello (2005). Use and availability of tree and shrub resources on Maasai rangelands near Amboseli, Kenya. African Journal of Range and Forage Science, 22(1):37-45

Kiringe, John (2005). Ecological and anthropological threats to ethno-medicinal plant resources and their utilization in Maasai communal ranches in the Amboseli region of Kenya. Ethno-botany Research and Applications, 3: 231-241

Kimani and Pickard. (1998). Recent trends and implications of group ranch subdivision and fragmentation in Kajiado District, Kenya. The Geographical Journal, 164: 202-218

Kiringe, John et al. (2009). The water situation analysis in Kimana area: causes and consequences of water quality, quantity, and distribution dynamics. Final water situation analysis report: prepared for the project implementation committee (PIC). Kimana water resources conservation project

Kumar. (2002). Methods for community participation: a complete guide for practitioners. ITDG Publishing. London pp23 – 52

Leela et al. (2017). From attitudes to actions: predictors of lion killing by Maasai warriors. PLoS ONE 12(1): e0170796. page 1-13

Lelo Francis et al. (1995). PRA Field Handbook for PRA Practitioners: The PRA Programme Egerton University, Njoro-Kenya

Lyamuya et al. (2014). Attitudes of Maasai pastoralists towards the conservation of large carnivores in the Loliondo game controlled area of Northern Tanzania. International Journal of Biodiversity and Conservation, 6(11): 797-805

Makindi et al. (2014.) Human-wildlife conflicts: causes and mitigation measures in Tsavo Conservation Area, Kenya. International Journal of Science and Research (IJSR), 3(6): 1025-1031

Manoa, Owino David. & Francis Mwaura (2016). Mitigating human-predator conflict in Loitokitok Sub-County, Amboseli Region of Kenya. Natural Resources, 7: 28-39

Manyara and Eleri (2007). Best practice model for community capacity-building: a case study of community-based tourism enterprises in Kenya. Tourism; preliminary communication, 55(4): 403-415

Mwangi. (2009). Property rights and governance of African rangelands: a policy review. Natural Resource Forum, 33: 160-170

Mwangi. (2007). The puzzle of group ranch subdivision in Maasailand. Development and Change, 38(5): 889-910

Nelson and Agrawal (2008). Patronage or participation? Community based natural resource management reform in Sub-Saharan Africa. Development and Change, 39(4): 557-585

Ngochembo. (2011). Investigating the economic potential of pastoralism: the case of Maasai pastoral

beef chain in Kajiado District Kenya

Ntiati (2002). Group ranches subdivision study in Loitokitok Division of Kajiado District, Kenya. The Land Use Changes, Impacts and Dynamics (LUCID) Project Working Paper 7. International Livestock Research Institute, Nairobi, Kenya

Ogolla and Mugabe. (1996). Land tenure systems and natural resource management. In Land We Trust: Environment, Private Property and Constitutional Change. ACTS Environmental Policy Series No. 7. Nairobi. pp 85-116

Okello et al**.** (2001).Relative importance of conservation areas in Kenya based on diverse tourist attractions. The Journal of Tourism Studies, 12 (1): 39 – 49

Okello et al. (2003). Maasai community wildlife sanctuaries in Tsavo – Amboseli Ecosystem, Kenya: management partnerships and their conditions for success. *Parks* 13(1): 7 - 15

Okello (2005). Land use changes and human-wildlife conflicts in the Amboseli area, Kenya. Human Dimensions of Wildlife, 10(1): 19 –28

Okello (2005). A survey of tourist expectations and economic potential for a proposed wildlife sanctuary in a Maasai Group Ranch near Amboseli, Kenya. Journal of Sustainable Tourism, 13(6): 566 – 589

Okello et al. (2005). Tourism potential and achievement of protected areas in Kenya: criteria and prioritization. Tourism Analysis, 10 (2):151 – 164

Okello and Tome (2007). The Chyulu Hills: Raison d'Etre and consequences of contested proprietorship of an idyllic resource oasis. Chapter 8- Pgs 123 – 138 In: Culture and community: Tourism studies in Eastern and Southern Africa. Rozenberg Publishers, Amsterdam, Netherlands

Okello et al. (2008). The relative importance of large mammal species for tourism in Amboseli National Park, Kenya. Tourism Management, 29 (4): 751 - 760

Okello et al. (2008). Tourism attractions and satisfaction of Amboseli National Park, Kenya Tourism Analysis, 13: 373 - 386

Rodriguez. (2007). Perceptions and attitudes of a Maasai community in southern Kenya regarding predator-damage compensation, wildlife conservation and the predators that prey on their livestock. A Capstone Paper submitted in partial fulfillment of the requirements for a Master of Sustainable Development at the School for International Training in Brattleboro, VT, USA.

Seno and Shaw (2002). Land tenure policies, Maasai traditions, and wildlife conservation in Kenya. Society and Natural Resources, 15: 79-88

Shannon et al. (n.d). Maasai culture and ecological adaptations.

Smith and Kasiki (2000). A spatial analysis of human-elephant conflict in the Tsavo ecosystem, Kenya

Sterling et al. (2017). Assessing the evidence for stakeholder engagement in biodiversity conservation, Biological Conservation 209:159–171

Thompson, Michael & Katherine Homewood (2002). Entrepreneurs, elites and exclusion in Maasailand: trends in wildlife conservation and pastoralist development. *Human Ecology,*30 (1):107-138

Valle and Yobesia (2009). Economic contribution of tourism in Kenya

Western and Nightingale (n.d). Environmental change and the vulnerability of pastoralists to drought: a case study of the Maasai in Amboseli, Kenya

Zahra et al. (2014). The warrior's dilemma: can Maasai culture persist in a changing World? The Journal of Sustainable Development, (13): 300-311