



THE SCHOOL
FOR FIELD STUDIES

Environmental Policy and Socioeconomic Values SFS 3020

Syllabus

The School for Field Studies (SFS)
Center for Wildlife Management Studies (CWMS)
Karatu, Tanzania

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.



COURSE CONTENT SUBJECT TO CHANGE

Please note that this is a copy of a recent syllabus. A final syllabus will be provided to students on the first day of academic programming.

SFS programs are different from other travel or study abroad programs. Each iteration of a program is unique and often cannot be implemented exactly as planned for a variety of reasons. There are factors which, although monitored closely, are beyond our control. For example:

- Changes in access to or expiration or change in terms of permits to the highly regulated and sensitive environments in which we work;
- Changes in social/political conditions or tenuous weather situations/natural disasters may require changes to sites or plans, often with little notice;
- Some aspects of programs depend on the current faculty team as well as the goodwill and generosity of individuals, communities, and institutions which lend support.

Please be advised that these or other variables may require changes before or during the program. Part of the SFS experience is adapting to changing conditions and overcoming the obstacles that may be present. In other words, the elephants are not always where we want them to be, so be flexible!

Course Overview

This course explores the social, cultural, economic and political context of the relationship between people and wildlife. The theoretical underpinnings draw on principles from human ecology, ecological anthropology, micro-and macroeconomics, development theory, philosophy and law. To understand present and future wildlife management in Kenya and Tanzania, this course examines influences of traditional attitudes, national land tenure regimes and policy framework, international influences, economic conditions, natural resource potentials and constraints, and regulation on human-wildlife interactions. Wildlife conservation in Tanzania (specifically in the Tarangire/Manyara Ecosystem) is examined in context of other competing land use alternatives in which its potential economic contribution to enhancing rural livelihoods is weighed against its constraints (e.g., depressed livelihoods associated with human-wildlife conflicts).

Learning Objectives

1. Through interactive learning and experiential activities, such as lectures, field exercises, class discussions, field lectures, this course attempts to expose students to the following concepts and skills:
2. Obtain some understanding of environmental policies, regulatory systems and institutional arrangements in natural resource conservation: historical evolution of policies and land tenure regimes – hence create and encourage a deeper appreciation of the complexity of wildlife conservation issues in general, and specifically in Tanzania.
3. Understand the constraints to conservation of wildlife among resource-poor rural populations
4. Show how the economic, socio-political and cultural context of the local community influences possible solutions to land use problems and wildlife conservation.
5. Consider and examine models of participatory natural resource conservation e.g., Wildlife Management Areas (WMAs).
6. Impart skills in practical environmental problem solving (such as participatory resource assessment and social surveys), encourage independent and critical analysis, and evaluation of conservation issues necessary to carry out directed research.
7. Encourage interactive learning and experiential education through class discussions, debates, role-playing and exposure to a variety of learning situations and contexts in the field
8. Explore strategies and examine options that could mitigate natural resource degradation specifically and environmental deterioration in general.

CWMS Research Direction

In this program we prepare students to answer the following question:

How can changes in land use and resource availability in the Maasai steppe of Tanzania be managed in such a way as to foster the well-being of local communities whilst safeguarding and promoting biodiversity conservation?

Case Study Overview and Background

Title of Case Study

The influence of biophysical and socio-cultural factors on wildlife and other natural resources within the Tarangire-Manyara Ecosystem of northern Tanzania

Case Study Question

How can land use practices and resource potentials in TME be sustainably managed to enhance the economic livelihood of the local people and at the same time promote wildlife conservation?

Background

The Tarangire-Manyara Ecosystem (TME) is one of the key wildlife conservation areas in Tanzania, and part of the Northern tourist circuit that brings in the famous parks of Serengeti, Ngorongoro, Lake Manyara, Tarangire, Arusha and Mt. Kilimanjaro National Parks. TME is estimated to comprise about 35,000 km². Tarangire and Manyara National Parks are the core protected areas in the TME exclusively designated for photographic tourism. Other forms of protected areas in TME include Wildlife Management Areas, (WMA) managed by local communities for tourism investment, game control areas (GCAs) and game reserves (GRs) managed by the Wildlife Division in which consumptive utilization such as trophy hunting is allowed. Consumptive utilization is also allowed in open areas that fall under the village lands designated as hunting blocks. All protected areas in TME have porous boundaries, thus, wildlife migrate freely between protected areas and dispersal areas in community village land. This leads to high levels of human-wildlife interactions and the ensuing human-wildlife conflicts. For many decades, the primary inhabitants of TME have been pastoralist Maasai communities with low human population density. However, over the past three decades there has been a rapid increase in human population mainly due to immigration with consequent changes in land use leading to expansion of agriculture and human settlement. This has resulted into blockage of migratory wildlife routes (such as into Simanjiro plains and to Lake Manyara through Kwakuchinja Corridor), habitat fragmentation and created more opportunities for human-wildlife conflicts. This poses increasing threat to environmental and wildlife conservation in the TME.

Other challenges in the TME include tourism impacts, ecological changes, rampant poaching of wildlife due to inadequate law enforcement and the overall wildlife population declines. Unplanned settlements and increase in human population lead to insularization of Tarangire and Manyara National Parks. Unplanned development of tourist accommodation facilities (such as camp sites and lodges) around the Parks, although benefiting the local communities, exert a high demand on water, reducing quantity of water discharge into lake Manyara, reducing water quality due to potential pollution from sewerage and domestic effluents. Poorly regulated hunting of wildlife in dispersal and game control areas outside the Parks threaten populations of critical wildlife species. Expanding irrigation in nearby rice farms in Mto wa Mbu town, heavy siltation, pesticide application, pollution caused by erosion and depletion of vegetation due to farming in the highland catchment areas affect the ecology and biodiversity of Lake Manyara and the adjacent wetlands. This is compounded by an increase in the human population in the catchment areas. The ground water in Mto wa Mbu is close to the surface and therefore increasing population, unplanned settlement and pollution which arise from overflowing pit latrines further pollute lake Manyara. The fall 2019 semester will provide a series of lectures and carefully designed research projects implemented by the students to explore these conservation issues in the TME through a multidisciplinary approach. Student projects will focus on providing baseline assessments, critical analysis and investigation with the aim of providing information to contribute towards sustainable environment and natural resource management, promote wildlife conservation and livelihood improvement for local communities.

Assessment

Assessment Item	Value (%)
Analyzing protected area-adjacent community perspectives on wildlife (PLA II – field exercise, multiple methods) – group presentations, individual report.	15
Documenting Climate Change - Semester paper	15
Community-based natural resource conservation Assessment.	20
Examination	50
TOTAL	100

Grading Scheme

A	95.00 – 100.00%	B+	86.00 - 89.99%	C+	76.00 – 79.99%	D	60.00-69.99%
A-	90.00 – 94.99%	B	83.00 – 85.99%	C	73.00 – 75.99%	F	0.00 - 59.99%
		B-	80.00 – 82.99%	C-	70.00 – 72.99%		

General Reminders

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 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.

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 CWMS. Therefore, it is important that you are prompt for all course activities.

Course Content

Type- CD: Class Discussion, **FD:** Field Discussion, **L:** Class Lecture, **FEX:** Field Exercise, **FL:** Field Lecture, **GL:** Guest Lecture, **TL:** Traveling Lecture

<i>Type and Time</i>	<i>Titles of Lectures /Field Exercises</i>	<i>Reading</i>
EP 01 (L, 2.0 hr)	Case study introduction (Tanzania) The objective is to give students an overview of the prevailing socio-economic and policy forces as the drivers of Natural Resources status in the Tarangire-Manyara Ecosystem.	No reading required
EP 02 (L, 2.0 hr)	The political economy of Tanzania The objective of this class is to provide the context within which most the events occur. It achieves this by examining the economic and socio-political conditions of the Tanzania in relation to Natural Resources Management.	UNDP 2012. African Human Development Report 2012: Towards a Food Secure Future. Statistical Annex: 153 - 172 (Required) Kallonga, E., Rogers, A., Nelson, F., Ndoinyo, Y., and Nshala, R. 2003. Performing Environmental Governance in Tanzania: Natural Resources Management and the Rural Economy. Non-Commissioned Paper. Sub-theme 1: <i>Good Governance and the Rule of Law: Utopia or Reality?</i> Forum To Assess Development Policies of Tanzania. (Required)
EP 03 (L, 2.0 hr)	Elements of environmental policy: an overview of issues relevant to the Tarangire-Manyara Ecosystem Provide a historical perspective of the environmental problems and rise of environmentalism. Provides a framework and rationale behind the course structure and content. The course puts forth SFSs' pedagogical approach and highlights how EP relates with the ecology, natural resource management and socio-cultural classes.	No readings required

Type and Time	Titles of Lectures /Field Exercises	Reading
EP 04 (TL, 3.0 hr)	<p>Land use changes and human activities in the catchment area of lake Manyara and its consequence to wildlife and environmental conservation constraints.</p> <p>This field lecture will provide students with the opportunity to see and clearly understand the challenges facing Lake Manyara and Tarangire National Parks by observing human encroachment and effects through agriculture, urbanization and human settlements. The discussion will be based on the impacts of the country's history and developmental policies on land and resource tenure, values and utilizations principles learned in class, and how these translate into real world observations.</p> <p>Students will pin point the un-exploited potentials on land use in the catchment areas that will improve local livelihood and enhance environmental conservation and propose the mitigations/adaptations that will improve land use management in the catchment area.</p> <p>(Not Graded)</p>	No reading required
EP 05 (L, 2.0 hrs)	<p>Poverty-Environmental Policy Analysis: The Impact of Environment on poverty and Impacts of poverty on Environment will be explored. This course will analyze the linkage between poverty and environmental policy of Tanzania. Specifically on: linkage in policy itself, how it is operated and implementations. In addition students will explore the influence of climate changes impacts on poverty and environment.</p>	<p>Kulindwa K., Lokina R. and Hepelwa A 2010: Poverty-Environmental Policy Analysis: Interim Report, Ministry of Finance and Economic Affairs, Tanzania. Department of Economics, University of Dar es Salaam, February 2010. (Required)</p> <p>Yanda, P.Z, and Madulu, N.F., 2003: Natural Resources Use Patterns and Poverty Alleviation Strategies in the Highlands and Lowlands of Karatu and Monduli Districts. <i>A study on Linkages and Environmental Implications</i>. Research Report No. 03.3. REPOA 2003: Mkuki na Nyota Publishers, Dar es Salaam, Tanzania.</p> <p>(Suggested)</p>
EP 06 (L, 2.0)	<p>Social Research Techniques (theory and practice): There are several steps and much to consider when</p>	Mildread L. Pattern. 2001. Questionnaire Research: A

Type and Time	Titles of Lectures /Field Exercises	Reading
hrs)	<p>collecting data on Sociological research especially on aspects of human interrelation to land scape (and its natural resources). In order to expose students to social research techniques that they may apply during their Directed Research projects, students will learn on:</p> <ul style="list-style-type: none"> • Approaches to sociological researches. • Research methods, • Ethical aspects when conducting social research. 	<p><i>Practical Guide</i>. Second edition. Pycszak Publishing. ISBN 1-884585-32-9.</p>
EP 07 (L, 3.5 hr)	<p>Participatory Learning and Action (PLA) I: principles and survey methods Origin of PLA. Pillars and application in research. This course chronicles the factors which led to the adoption of participatory approaches and also provides its conceptual foundation. In addition it takes students through some of the most commonly used techniques.</p>	<p>Kumar, S. 2002. Methods for Community Participation: A complete Guide for Practitioners. ITDG Publishing. London pp23 – 52 (Required) Lelo Francis et al 1995: PRA Field Handbook for PRA Practitioners: The PRA Programme Egerton University, Njoro-Kenya (Required)</p>
EP 08 (FEX, 5.0 hr)	<p>Analyzing protected area-adjacent community perspectives on wildlife (PLA II – field exercise) This is a field exercise which imparts skills in practical environmental problem solving. Students are assigned different participatory tools which they use to collect information that is then synthesized in class. Students will learn the use of at least two PLA techniques commonly used - transect walks, resource mapping, matrix ranking, interview, etc. to identify key land and resources use. They will also use the techniques to probe landscape resources and/or community resource-interaction in the vicinity of Catchment area of lake Manyara. Groups of 4 students will work together to produce a terrain profile of land and resources use around Manyara Catchment area. Each group will present field experience to the rest of the class. Each student will write a concise critique report on the exercise (focusing on results, and discuss the strengths and weaknesses of the technique they used). (Graded out of 15%)</p>	<p>Same as for EP 05 above</p>

Type and Time	Titles of Lectures /Field Exercises	Reading
EP 09 (L, 2.0 hr)	<p>Evolution and principles of community conservation policies</p> <p>Provide an overview and rationale for community participation.</p> <p>This class examines why the involvement of local people/communities in wildlife conservation is essential and how this reintegration has been achieved in different parts of the world.</p>	<p>Hackel, D. J. 1998. Community conservation and the future of Africa's wildlife. <i>Conservation Biology</i> 13: 726 – 734 (Required). (Required)</p> <p>Nelson, Fed and Arun Agrawal. 2008. Patronage or Participation? Community Based Natural Resource Management Reform in Sub-Saharan Africa. <i>Development and Change</i>. 39(4) 557-585 (Required).</p> <p>Kideghesho, J.R. 2010. Wildlife Conservation in Tanzania: Whose Interest Matters? In: <i>Conservation of Natural Resources. Some African and Asian Examples</i>. (Edited by Gereta, E.J and Roskaft, E.), Tapir Academic Press, Trondheim. pp 82 – 110. (Required)</p>
EP 10 (L, 3.0 hrs)	<p>Climate Changes: An overview of Impacts and Adaptations.</p> <p>The class examines the history and causes of global warming that lead to weather and climate changes. Further the class will explore on the observed changes in weather and climate, what impacts on livelihood caused by these changes, how human responds to these impacts, how these responses impacts biodiversity and how the biodiversity particular wildlife adapt to climate changes.</p>	<p>Michael Case. Climate change impacts on East Africa: A review of the scientific literature. assets.panda.org/downloads/east_africa_climate_change_impacts_final_2[1].pdf 01/29/2016 (Suggested)</p> <p>Namwaka O. Mwaikinda 2011. Climate Change in Tanzania: The policy picture. Tanzania Natural Resources Forum. www.forumcc.org (Suggested)</p> <p>Shemshanga C., Omambia N.A., and Gu Y. 2010 The Cost of climate change in Tanzania: impacts and adaptations. <i>Journal of American Science</i>, 2010: 6(3) (Suggested)</p>
EP 11 (L & TL, 5.0 hr)	<p>An overview of Natural Resources Sectorial Policies in Northern Tanzania: Implementation, Achievements and Challenges.</p> <p>The class will understand natural resources</p>	<p>Kulindwa K., Lokina R. and Hepelwa A 2010: Poverty-Environmental Policy Analysis: Interim Report, Ministry of Finance and</p>

Type and Time	Titles of Lectures /Field Exercises	Reading
	<p>sector policies and their instruments in Tanzania, and how they are being domesticated and adapted in Northern Tanzania. The class will have an opportunity to visit different sites to observe on how these policies are being implemented at grassroot level by local communities.</p>	<p>Economic Affairs, Tanzania. Department of Economics, University of Dar es Salaam, February 2010. (Required)</p> <p>URT. 1997: National Environmental Policy. Vice President’s office, Dar es Salaam, Tanzania. (Required).</p> <p>URT. 2004: Environmental Management Act, 2004: Act No. 20 of 2004. (Suggested)</p> <p>URT. 2013: A Performance Audit on Management of Wildlife Hunting in Game Reserves and Game Controlled Areas. Ministry of Natural Resources and Tourism, Tanzania. A report of Controller and Audit General of United Republic of Tanzania, 2013. (Suggested)</p> <p>Wildlife Conservation Act, 2009 Tanzania.</p> <p>Forest Act 2002, Tanzania: Gazette of United Republic of Tanzania No. 23. Volume 83, 7th June, 2002. Government Printer, Dar es Salaam. (Suggested)</p>
<p>EP 12 & HDC 11 (FEX, 7.5 hr)</p>	<p>Assessing Human Wildlife Conflict Issues among agro-pastoralists in the Tarangire-Manyara Ecosystem (Tanzania) and Amboseli-Tsavo Ecosystem (Kenya) areas.</p> <p>This will involve visiting an agro-pastoralist community and investigating aspects of human-wildlife conflicts. From their interaction with the local community, students will identify the various forms of human wildlife conflicts, the wildlife species which cause the most damage, estimate the economic losses incurred, and assess the effectiveness of various wildlife control methods. At the same time they will be assessing the local peoples' attitudes towards wildlife in the area. This exercise explores policy response to human-wildlife conflict.</p> <p>The whole class will visit community areas and</p>	<p>Kissui, B.M. 2008. Livestock predation by lions, leopards, spotted hyenas, and their vulnerability to retaliatory killing in the Maasai steppe, Tanzania (Required)</p> <p>Kenya Wildlife Service. 1994. Human wildlife conflict in Kenya. (Required)</p> <p>Kurayin R: Linking local perception of elephant conservation (Suggested)</p> <p>Philip Muruthi (2005). Human Wildlife Conflict: Lessons Learned From. AWF’s African Heartlands. AWF Working papers, AWF, Nairobi, Kenya</p>

Type and Time	Titles of Lectures /Field Exercises	Reading
	investigate aspects of human-wildlife conflicts and probe resource use (especially water and pastures land) competition and talk to local community where possible. Information obtained in this field exercise will be presented for discussion by a class. (Not Graded)	Shemweta, D.T.K. and Kideghesho, J.R. 2000: Human-Wildlife Conflicts in Tanzania: What Research and Extension Could Offer to Conflict Resolution. Proceedings of the 1 st University Wide Conference, 5 th -7 th April, 2000; Vol.3. http://www.tzonline.org/pdf/humanwildlifeconflictsintanzania.pdf 30/01/2015.
EP 13 (L/TL, 5.0 hr)	<p>Pros and cons of community based conservation: The role of Wildlife Management Areas (WMAs) in achieving the objectives of conservation in Tanzania</p> <p>This course is divided into two parts; class and traveling lecture. The class lecture will build students' understanding on the WMA establishment processes and impacts on wildlife conservation in Tanzania.</p> <p>The traveling lecture will be conducted at Burunge WMA whereby students will have a field experience on socioeconomic impacts of WMAs and will discuss how to overcome hurdles facing the WMA program at the community level.</p>	<p>Nelson.F., and Blomley, T., 2007. Is Participatory Forest Management Working? Eating from the same plate: Integrating Community-based Wildlife and Forest management. The Arc Journal ISSN 0856 – 8715 pp 11 – 13. (Required)</p> <p>Paul Wilfred, 2010. Towards Sustainable Wildlife Management Areas in Tanzania. Mongabay.com Open Access Journal - Tropical Conservation Science Vol. 3 (1):103-116, 2010 (Required)</p> <p>URT. 2003. Reference Manual for Implementing Guidelines for the Designation and Management of Wildlife Management Areas (WMAs) in Tanzania, Ministry of Natural Resources and Tourism.(Required)</p>
EP 14 (V, 3.0 hr)	<p>Culture as a tool for tourism Development and Wildlife Conservation (Milking the Rhino – Video)</p> <p>This Video will show how wildlife and tourism can both benefit from culture of the local community. Also it shows how climate change has accelerated human-wild life conflicts, its consequences and adaptation measures. Further, it shows how benefits accrued from wildlife conservation can catalyze environmental degradation.</p>	Video show

Type and Time	Titles of Lectures /Field Exercises	Reading
EP 15 (TL/GL, 4.0 hr)	<p>Environmental conservation initiatives in Karatu District (case study)</p> <p>This lecture will provide field experiences of natural resource conservation issues in the Karatu district by highlighting conservation challenges and current initiatives.</p>	No reading required
EP 16 (FEX, 5.0 hr)	<p>Community based natural resource conservation Assessment. This field exercise will expose students on the effectiveness of the local community based effort to conserve forest and water resources.</p>	<p>Blomley, T., and Ramadhani, A. (2007). Participatory Forest Management in Tanzania. An overview of status, progress and challenges ahead. The Arc Journal, No. 21 September, 2007. ISSN 0856 – 8715 pp 3 – 5. (Suggested)</p> <p>Meshack, C., and Raben, K. (2007). Balancing Rights, Responsibilities, Costs and Benefits in the Management of Catchment Forests. The Arc Journal, No. 21. September, 2007 ISSN 0856 – 8715 pp 6 – 7. (Suggested)</p> <p>Pfliegner, K., and Moshi, E. (2007). Is Joint Forest Management viable in protection forest reserves? Experience from Morogoro Region. The Arc Journal, No. 21 September, 2007. ISSN 0856 – 8715 pp 17 – 20. (Suggested)</p>
EP 17 & HDC 04 (FL, 6 hr)	<p>Land and resource tenure regimes in Tanzania and Kenya -‘Ngorongoro Conservation Area and Amboseli Tsavo Ecosystem Case Study’</p> <p>This will involve assessment of the implications of land and resource tenure policies and laws in regards to natural resources conservation and management. This will enable students to identify:</p> <ul style="list-style-type: none"> • Categories of public lands, • Tenure systems on each category of land and other natural resources. • the gaps in the policy and laws that do not enhance resources conservation and management, also affecting the livelihood of local communities. 	<p>Kauzeni, A .S., Sechambo, F.C., and Juma, I., 1998. Private and Communal Property Ownership Regimes in Tanzania. (Required)</p> <p>Boone B. R et al. 2006. Cultivation and Conservation in Ngorongoro Conservation Area, Tanzania. Hum Ecol (2006) 34:809 – 828 (Suggested)</p> <p>Kameri-Mbote, P., 2005. Sustainable management of wildlife resources in East Africa. A critical Analysis of the Legal, Policy and Institutional frameworks. IELRC Working</p>

Type and Time	Titles of Lectures /Field Exercises	Reading
		Paper No. 5. (Suggested) http://www.ielrc.org/content/w0505.pdf
62.0	TOTAL CONTACT HOURS	

Reading List

*Readings in **Bold** are required. Readings are listed in the order in which they appear in the above table.

- UNDP** 2012. African Human Development Report 2012: Towards a Food Secure Future. Statistical Annex: 153 - 172
- Kallonga**, E., Rogers, A., Nelson, F., Ndoinyo, Y., and Nshala, R. 2003. Performing Environmental Governance in Tanzania: Natural Resources Management and the Rural Economy. Non-Commissioned Paper. Sub-theme 1: *Good Governance and the Rule of Law: Utopia or Reality?* Forum To Assess Development Policies of Tanzania.
- Kulindwa** K., Lokina R. and Hepelwa A 2010: Poverty-Environmental Policy Analysis: Interim Report, Ministry of Finance and Economic Affairs, Tanzania. Department of Economics, University of Dar es Salaam, February 2010.
- Yanda, P.Z, and Madulu, N.F., 2003: Natural Resources Use Patterns and Poverty Alleviation Strategies in the Highlands and Lowlands of Karatu and Monduli Districts. *A study on Linkages and Environmental Implications*. Research Report No. 03.3. REPOA 2003: Mkuki na Nyota Publishers, Dar es Salaam, Tanzania.
- Mildread L. Pattern. 2001. Questionnaire Research: *A Practical Guide*. Second edition. Pyrczak Publishing.
- Kumar**, S. 2002. Methods for Community Participation: A complete Guide for Practitioners. ITDG Publishing. London pp23 – 52
- Lelo** Francis et al 1995: PRA Field Handbook for PRA Practitioners: The PRA Programme Egerton University, Njoro-Kenya
- Hackel**, D. J. 1998. Community conservation and the future of Africa’s wildlife. *Conservation Biology* 13: 726 – 734
- Nelson**, Fed and Arun Agrawal. 2008. Patronage or Participation? Community Based Natural Resource Management Reform in Sub-Saharan Africa. *Development and Change*. 39(4) 557-585
- Kideghesho**, J.R. 2010. Wildlife Conservation in Tanzania: Whose Interest Matters? In: *Conservation of Natural Resources. Some African and Asian Examples*. (Edited by Gereta, E.J and Roskaft, E.), Tapir Academic Press, Trondheim. pp 82 – 110.
- Michael Case. (2016). Climate change impacts on East Africa: A review of the scientific literature. [assets.panda.org/downloads/east_africa_climate_change_impacts_final_2\[1\].pdf](https://assets.panda.org/downloads/east_africa_climate_change_impacts_final_2[1].pdf)
- Namwaka O. Mwaikinda 2011. Climate Change in Tanzania: The policy picture. Tanzania Natural Resources Forum. www.forumcc.org
- Shemshanga C., Omambia N.A., and Gu Y. 2010 The Cost of climate change in Tanzania: impacts and adaptations. *Journal of American Science*, 2010: 6(3)

- Kulindwa K.**, Lokina R. and Hepelwa A 2010: Poverty-Environmental Policy Analysis: Interim Report, Ministry of Finance and Economic Affairs, Tanzania. Department of Economics, University of Dar es Salaam, February 2010.
- URT.** 1997: National Environmental Policy. Vice President's office, Dar es Salaam, Tanzania.
- URT.** 2004: Environmental Management Act, 2004: Act No. 20 of 2004.
- URT.** 2013: A Performance Audit on Management of Wildlife Hunting in Game Reserves and Game Controlled Areas. Ministry of Natural Resources and Tourism, Tanzania. A report of Controller and Audit General of United Republic of Tanzania, 2013.
- Wildlife Conservation Act, 2009 Tanzania.
- Forest Act 2002, Tanzania: Gazette of United Republic of Tanzania No. 23. Volume 83, 7th June, 2002. Government Printer, Dar es Salaam.
- Kissui**, B.M. 2008. Livestock predation by lions, leopards, spotted hyenas, and their vulnerability to retaliatory killing in the Maasai steppe, Tanzania
- Kenya Wildlife Service.** 1994. Human wildlife conflict in Kenya.
- Kurayin R: Linking local perception of elephant conservation
- Philip Muruthi (2005). Human Wildlife Conflict: Lessons Learned From. AWF's African Heartlands. AWF Working papers, AWF, Nairobi, Kenya
- Shemweta, D.T.K. and Kideghesho, J.R. 2000: Human-Wildlife Conflicts in Tanzania: What Research and Extension Could Offer to Conflict Resolution. Proceedings of the 1st University Wide Conference, 5th -7th April, 2000; Vol.3. <http://www.tzonline.org/pdf/humanwildlifeconflictsintanzania.pdf>
- Nelson.F.**, and Blomley, T., 2007. Is Participatory Forest Management Working? Eating from the same plate: Integrating Community-based Wildlife and Forest management. The Arc Journal ISSN 0856 – 8715 pp 11 – 13.
- Paul Wilfred**, 2010. Towards Sustainable Wildlife Management Areas in Tanzania. Mongabay.com Open Access Journal - Tropical Conservation Science Vol. 3 (1):103-116, 2010
- URT.** 2003. Reference Manual for Implementing Guidelines for the Designation and Management of Wildlife Management Areas (WMAs) in Tanzania, Ministry of Natural Resources and Tourism.
- Luvanga,N.**, and Shitundu,J. 2003. The Role of Tourism in Poverty Alleviation in Tanzania. Research on Poverty Alleviation (REPOA), Research Paper No. 03.4
- Sosovele**, H. 2005 Tourism Development and Poverty Reduction Initiatives from Tanzania: Lesson for Practice. Institute for Resource Assessment, University of Dar es Salaam – Tanzania.
- Ashley, C., De Brine, p., Lehn, A., and Wilde, H., 2007. The role of Tourism Sector in Expanding Economic Opportunities. Fellows of Harvard College, Overseas Development Institute.
- Kenya Wildlife Services (2004): Eco-tourism Potential and Development within Lake Nakuru National Park and its Catchments
- Mbaiwa, J.E. (2002): The Socio-economic and environmental impacts of tourism development on the Okavango delta northern-western Botswana
- Sauraha (1995): Case study on effects of tourism on culture and environment in Nepal. UNESCO
- Sawkar et al. (1998): Tourism and Environment
- Blomley, T., and Ramadhani, A. (2007). Participatory Forest Management in Tanzania. An overview of status, progress and challenges ahead. The Arc Journal, No. 21 September, 2007. ISSN 0856 – 8715 pp 3 – 5.
- Meshack, C.,and Raben, K. (2007). Balancing Rights, Responsibilities, Costs and Benefits in the Management of Catchment Forests. The Arc Journal, No. 21. September, 2007 ISSN 0856 – 8715 pp 6 – 7.
- Pfliegner, K., and Moshi, E. (2007). Is Joint Forest Management viable in protection forest reserves? Experience from Morogoro Region. The Arc Journal, No. 21 September, 2007. ISSN 0856 – 8715 pp 17 – 20.

- Kauzeni**, A .S.,Sechambo, F.C., and Juma, I., 1998. Private and Communal Property Ownership Regimes in Tanzania.
- Boone B. R et al. 2006. Cultivation and Conservation in Ngorongoro Conservation Area, Tanzania. *Hum Ecol* (2006) 34:809 – 828
- Kameri-Mbote, P., 2005. Sustainable management of wildlife resources in East Africa. A critical Analysis of the Legal, Policy and Institutional frameworks. IELRC Working Paper No. 5.