

Strategies for promoting community participation in wildlife conservation: Examples from the field

Hellen Ipara¹, Johnstone Kimanzi¹ and Paul Odwori²

School of Economics, University of Eldoret, P.O. Box 1125-30100, Eldoret, Kenya¹
Corresponding Email: hellenipara@yahoo.com

School of Natural Resource Management, Department of Wildlife Management, University of Eldoret, P.O. Box 1125-30100, Eldoret, Kenya²

Abstract

Since the mid 1980s efforts have been made by national governments and other stakeholders to promote local community participation in wildlife conservation. Despite this, realizing full and active community participation has since then remained a challenge to protected area managers, conservationists and other actors in the conservation sphere. Using results from a study conducted among local communities living adjacent to protected areas in Kenya, this paper discusses the strategies used to promote local community involvement in wildlife conservation. The study targeted local communities residing adjacent to Ruma, Amboseli and Saiwa Swamp National Parks and Kakamega Forest National Reserve all of which are managed by Kenya Wildlife Service (KWS), as well as KWS staff working in these parks. A sample of 315 respondents was interviewed among them 300 randomly selected local community members, and 15 purposively selected KWS staff. Structured questionnaires, key informant interviews and informal consultations and discussions were used to generate data. Data was analysed using descriptive statistics. Results showed that local community involvement in wildlife conservation takes various forms among them active (92%), passive (84%) and token (80%) participation. Further, diverse strategies are used to promote local community participation in wildlife conservation among them holding consultative community meetings (79%), education and outreach (78.4%), benefit sharing (74.3%), collaboration and networking (65.6%), enterprise development (62.2%), initiation of integrated conservation and development projects (62.1%), promotion of community based conservation (62.1%) and formation of partnerships (59%). In spite of their wide use, results showed that the success of these strategies in promoting community participation varied from one study area to another. Concerted efforts should be made by KWS and other stakeholders to motivate local communities to participate in protected area management and wildlife conservation in order to realise the objectives and benefits of wildlife conservation, and also secure the future and sustainability of the four protected areas and their wildlife.

Key Words: Wildlife conservation, Community Participation

Introduction

Wild and Mutebi (1996) and Neumann (1997) alluded that the international debate over conservation strategies has in recent years become an opposition between nature and people oriented conservation. Following this, calls to include the concept of local community participation in conservation and development have been supported with organizations like the World Bank and grassroots human rights organizations offering suggestions on approaches and strategies to be used to promote community participation in wildlife and natural resource conservation, and environmental management. Implicit in this is the belief that local communities living adjacent to protected areas (PAs) such as Ruma, Amboseli and Saiwa Swamp National Parks and Kakamega Forest National Reserve among others are in constant interaction with wildlife and to a large extent determine the future of these areas and their resources including wildlife. Hence the integration of local communities in protected area management and wildlife conservation not only minimises the costs of law enforcement and policing, and minimise negative impacts associated with the "fence and fine" approach as well as other protectionist measures, but also enhances community access to benefits accruing from conservation.

It has been argued that most colonial and post – colonial approaches to wildlife conservation operated on the premise that local peoples' stakes and rights in wildlife and other natural resources were subsidiary to those of the state (Borrini-Feyerabend and Buchan, 1997; UNEP, 2007). Further, communities and their resource management systems were perceived as poachers and threats respectively, and the former were often either ordered out of their territories or forcefully evicted and denied access to natural resources which were the basis of their livelihood without discussion or compensation (Leader-Williams *et al*, 1996; Borrini-Feyerabend, 1997). Hence, community participation in wildlife conservation, coupled with benefit sharing and other participatory strategies can help garner local support for conservation, and also promote the integrity and sustainability of protected areas and their wildlife resources (Seno, 1998; Ipara, 2013; Odwori *et al*, 2014; Ipara and Odwori, 2015).

Various strategies have been advanced to integrate local communities in wildlife conservation. Notable among these are collaborative management (AERDD, 1996), formation of partnerships (Goodwin, 1998; McNeely, 1995), benefit sharing (AERDD, 1996; Ipara, 2013), consultation and information sharing (Leader-Williams *et al*, 1996, de Boef and Thijssen, 2007), education and outreach (KWS, 1996; Ipara *et al*, 2014), and integrated conservation and development (Wells *et al*, 1996). In all these strategies it has been argued that participation serves various purposes among the promoting community empowerment through involvement in decision making processes, implementation of wildlife conservation programmes, benefit sharing, and monitoring and evaluation of wildlife projects, programmes and activities. Consequently, participation can be viewed as a tool and instrument of change, and a goal by which communities are empowered to acquire conservation knowledge and skills and take greater responsibility (ownership) of conservation processes and development agenda (de Boer and Thijssen, 2007).

In Africa the foregoing paradigm shift has been evident in the communal areas management programme for indigenous resources (CAMPFIRE) in Zimbabwe (Metcalf, 1994) and the administrative management design (ADMAD) (Leader-Williams *et al*, 1996), while in Kenya the integration of local communities is addressed through the community wildlife service and partnership approaches which were implemented in the late 1990s (KWS, 1994). Other strategies that have been used elsewhere include enterprise development co-management and conservation education, extension and outreach (AERDD, 1996).

Barrow (1996) documented about three approaches/strategies used to promote local community participation in wildlife conservation and natural resource management in sub-Saharan Africa namely community based conservation (CBC), community based natural resource management (CBNRM) and protected area outreach. Wells *et al*, (1992) advocated for the participatory approach which lays emphasis on active participation by local communities, and the beneficiary approach which pays emphasis on access to benefits accruing from wildlife conservation. Similar sentiments were echoed by Goodwin (1998) and Barrow *et al* (2000). Despite being adopted widely in many countries in sub-Saharan Africa, Latin America and India, their success and effectiveness in promoting local community involvement in wildlife conservation has been varied.

The advantages of integrating local communities are well documented (Wells *et al*, 1992; Borrini-Feyerabend, 1997; de Boer and Thijssen, 2007; Ipara and Odwori, 2015). In these studies it has been argued that community participation is a consequence of a vacuum of concern and therefore a strategy by which local people are motivated to fully participate in conservation. Further, through this strategy, local communities are empowered to become actors in conservation initiatives and processes. By involving local communities in wildlife conservation, devolution of roles and responsibilities is realised; power sharing between local communities, protected area management authorities and other stakeholders is enhanced; authority is delegated; local peoples' social concerns are integrated in conservation; and community policing is promoted thus lowering the costs of protected area management and wildlife conservation.

Against this background, this study assessed the strategies used to promote local community participation in wildlife conservation within and around four protected areas in Kenyan with the aim of proposing measures that can promote greater community involvement.

Materials and methods

Study Areas

The study was conducted within and around Ruma, Amboseli and Saiwa Swamp National Parks and Kakamega Forest National Reserve in Kenya. The four PAs are managed by Kenya Wildlife Service (KWS) on behalf of the government and people of Kenya. Ruma National Park is located in Homabay County in Nyanza region, and is bordered by residents who practice mainly fishing and agriculture. Amboseli National Park is in Kajiado County in South Rift, and is bordered by pastoralists and agro- pastoralists. Saiwa Swamp National Park is

situated in Trans-Nzoia County in North Rift, and is bordered by communities practising agriculture. Lastly, Kakamega National Reserve (KFNR) is located in Kakamega County in Western Kenya and is bordered by communities practising agriculture. The four protected areas are located in different environments and ecosystems ranging from arid and semi-arid lands (ASALs eg Amboseli) to tropical forests (eg KFNR), and provided a basis for good comparisons.

Methods

The main objective of the study was to assess the strategies being used to integrate local communities in wildlife conservation within and around the four protected areas. Specific study objectives included to determine the forms/types of participation that exist in the study areas sampled; to determine the strategies used in promoting community participation in the study areas; and to establish the challenges to promoting community participation in wildlife conservation in the study areas sampled.

A sample of 315 respondents composed of 300 randomly selected local community members and 15 staff purposefully drawn from Kenya Wildlife Service which manages the four PAs. The sample drawn from the local community was distributed as follows: Ruma (80), Amboseli (50), Saiwa (70) and KFNR (100). Data was collected using structured questionnaires, key informant interviews, and informal consultations and discussions. Data was analysed using descriptive statistics. Results are presented using qualitative descriptions and discussions and tables.

Results

Most of the local respondents interviewed were males (62%), had had access to education up to primary level and above (88%), were residents by birth (98%), lived close to the protected areas sampled (100%), and were engaged in different occupations among them fishing (56%), crop farming (74%), livestock keeping (100%), pastoralism (96%), agro-pastoralism (60%), salaried employment (52%), business (eg shop keepers, hawking, fish selling etc) (54%) and self employment (eg jua kali) (30%).

On average, majority of the local respondents (85%, n=300) reported being aware of various forms of participation practised in the study areas among them active participation (92%), passive participation (84%) and token participation (80%). Majority (80%) also stated that KWS and other conservations operating in the study areas engage communities using the three forms to promote their participation in wildlife conservation.

Various strategies are used to promote local community participation in wildlife conservation in the four study areas surveyed. This include holding consultative meetings with stakeholders (79%, n=300), education and extension/outreach (78.4%), benefit sharing (74.3%), collaboration (65.6%), enterprise development (62.2%) initiation of integrated conservation and development projects (62.1%), promotion of community based conservation (62.1%) and formation of partnerships (59%),. On average, 83% of the respondents alluded that these strategies together with protected area outreach programmes were used to ensure that initiatives

started under community based conservation (CBC), community based wildlife management (CBWM) and community based natural resource management (CBNRM) are sustained, and benefit local residents. All the respondents further contended that the strategies are implemented with the guidance of KWS personnel who manage the surveyed study areas under the Community Wildlife Service (CWS) program housed in the Community Wildlife Department within KWS. Further, results revealed that although CWS has been operational in the study areas surveyed for long only 195 (65%) and 216 (72%) of the respondents were aware of the existence of CWS and CBC respectively. Table 1 gives a summary of the results highlighted above.

Table 1: Respondents' views on strategies used to promote community participation in wildlife conservation

Strategy Used	Ruma		Amboseli		Saiwa		KFNR	
	Used	Not used	Used	Not used	Used	Not used	Used	Not used
Consultation	65 (81.3%)	15 (18.7%)	44 (88%)	6 (12%)	55 (78.6%)	15 (21.4%)	68 (68%)	32 (32%)
Benefit sharing	50 (62.5%)	30 (37.5%)	40 (80%)	10 (20%)	62 (88.6%)	8 (11.4%)	66 (66%)	34 (34%)
Collaboration	45 (56.3%)	35 (43.7%)	38 (76%)	12 (24%)	56 (80%)	14 (20%)	50 (50%)	50 (50%)
Education and outreach	62 (77.5%)	18 (22.5%)	42 (84%)	8 (16%)	63 (90%)	17 (10%)	62 (62%)	38 (38%)
Formation of partnerships	54 (67.5%)	26 (32.5%)	28 (56%)	22 (44%)	48 (68.6%)	32 (31.4%)	44 (44%)	56 (56%)
Establishment of conservation & Development Projects	48 (60%)	32 (40%)	26 (52%)	24 (48%)	45 (64.3%)	25 (35.7%)	72 (72%)	28 (28%)
Enterprise development	42 (52.5%)	38 (47.5%)	32 (64%)	18 (36%)	54 (77.1%)	16 (22.9%)	55 (55%)	45 (45%)
Implementation of community based conservation	42 (52.5%)	38 (47.5%)	32 (64%)	18 (36%)	54 (77.1%)	16 (22.9%)	55 (55%)	45 (45%)

Discussion

The concept of participation and its use in natural resource management and conservation dates back to the 1980s. This was after a growing realization by the World Bank and other development partners that sustainable natural resource management could not be realised unless communities own and exploit these resources, or bear the cost of conserving them are not

integrated in contemporary approaches used to manage and conserve them. As a result, various approaches and strategies were advanced by researchers, conservationists and scholars to promote community participation. Following this, early attempts aimed at integrating local communities in wildlife conservation in Kenya have been documented about Amboseli National Park by IIED (1994). Likewise, similar attempts were made around Tsavo National Park in the late 1980s under the “Partners as Neighbours” programme funded by the African Wildlife Foundation (AWF) (McNeely, 1995). Although these initiatives had varying degrees of success, none of them realised the goals of promoting active local community involvement in wildlife conservation. The success of these initiatives was constrained by lack of adequate consultation, poor implementation frameworks, low conservation awareness levels, conservatism, and unfulfilled promises and expectations among other factors (IIED, 1994).

In spite of the foregoing efforts, formal and institutionalized attempts to involve local communities in wildlife conservation date back to 1991 when KWS inaugurated the Community Wildlife Service (CWS) Department under which the community wildlife programme (CWP) and partnership approach operate (KWS, 1996). From the onset, the main objective of the CWS/CWP programme was to ensure proper utilization of wildlife outside protected areas for the benefit of local communities that tolerate the impacts of wildlife on their farms. Other subsidiary aims of CWP are documented by KWS (1990). To achieve its objectives, the CWS was mandated to initiate and establish modalities for enhancing partnership arrangements with local communities with a view to garnering their support and goodwill for wildlife conservation, and also minimizing and resolving human-wildlife conflicts. Following this, a number of precautionary measures such as fencing and use of other recommended physical barriers were adopted and implemented to protect people and their property from damage that might be caused by wildlife. Other strategies that have been adopted under the CWP are documented by KWS (1990). However, like with other past conservation approaches and strategies, issues pertaining to local community participation have to date not been fully realised.

Despite the fact that 85% of the respondents were aware of various forms of participation operational in the study areas, on average only 83% of the respondents were aware of the various strategies being used to integrate local communities in wildlife conservation under CWS, as well as their benefits. Respondents further reported various benefits accrued to the local communities bordering the four PAs sampled from the strategies used under the CWS approach to wildlife conservation (Table 2). Despite this, majority were stated that although CWS has been operational in the study areas surveyed for over ten years, KWS personnel rarely hold meetings with communities to discuss issues relating to how local residents can be actively be involved in wildlife conservation. Majority further stated that the CWS approach to wildlife conservation was not very effective in addressing various issues pertaining to community based conservation and local participation. These observations concurred with those of respondents who were informally consulted, as well those documented by Wells *et al.* (1992), Leader-Williams *et al* (1996) and Ipara (2004).

On the contrary, KWS personnel interviewed reported that since the implementation of the CWS programme in the four study areas, they hold regular meetings with local people to discuss issues pertaining to the importance of conserving wildlife, benefits of community participation in wildlife conservation, objectives and benefits of CBC, CBWM and CBNRM. They also contended that under the CWS programme and CBC initiatives, they organise consultative meetings with local communities in the study areas. They alluded that these meetings have led to a positive change in the attitudes and perceptions of most of the local residents living adjacent to the four protected areas and their wildlife. Further, KWS staff reported that under CWS, various benefits have accrued to the community through establishment of projects like bee-keeping and tree nurseries at KFNR, employment of local people in the four PAs surveyed, integration of indigenous knowledge in conservation at Saiwa Swamp National Park and KFNR, and local community access to water and grazing lands (pastures) at Amboseli National Park. Other benefits enumerated include awareness creation through education and extension/outreach, financial and material support to community projects like cattle dips, water, roads, bridges and schools. Despite this, they were of the opinion that the envisaged benefits of CWS and other strategies used by KWS have been jeopardised due lack of support from the beneficiaries, widespread ignorance, conservatism and changing attitudes and perceptions. Similar observations are documented by Ipara (2004) and Ipara *et al* (2015).

The consultative and beneficiary strategies/approaches were advanced by Wells *et al* (1992) and supported by Borrini-Feyerabend (1997). The consultative approach advocates for dialogue, consultation and information sharing and exchange with local communities using community meetings, round table discussions, seminars and workshops among other forums with the aim of getting the views of local people on wildlife conservation issues, involving them in the process of change and development, and enabling them to wisely manage their resources. In the four study areas surveyed, consultation is enhanced by KWS staff holding meetings with communities, and visiting schools and groups in the vicinity of the PAs and giving wildlife conservation talks on various issues like human-protected area management-wildlife interactions and inter-relationships, human-wildlife conflicts, benefits and challenges to conservation. The meetings are also used to disseminate wildlife conservation information; educate, enlighten and sensitise communities of benefits of conservation; and also caution them on impacts of their unsustainable resource exploitation activities on wildlife habitats and wildlife. These observations concur with those of AERRD (1996). But as Wells *et al* (1992) report, although efforts to promote social and economic development among communities adjacent to protected areas represent the central concern of protected area management authorities, involving local communities actively in wildlife conservation remains a challenge. This was the case in the study areas sampled and there is need to intensify efforts to promote greater community participation.

The benefit sharing strategy is used to enlighten communities on mechanisms of promoting access to benefits accruing from wildlife conservation, and how to make wildlife economically viable. This strategy seeks to promote local community participation using benefits accruing from wildlife conservation and related activities like tourism as incentives. This

approach coupled with the enterprise development strategy are also used by KWS to help communities start income generating projects like cultural centres, community museums and curio shops to help them diversify their income sources and cushion them against risks and uncertainties associated with traditional activities like farming, fishing and livestock keeping. Around Amboseli National Park the local community is allowed access to pasture, water and salt licks in the park, while in Saiwa Swamp National Park local residents are allowed to harvest papyrus, thatch grass and herbal medicines from the park. In Kakamega Forest National Reserve and Ruma National park local people harvest firewood from dead wood and thatch grass. Other benefits accruing to local residents include employment and support for projects initiated like curio shops by Maasai women at Amboseli National Park and a community museum at KFNR.

The integrated conservation and development projects (ICDP) strategy is used to mobilise communities to start wildlife-forest dependent projects like butterfly farming and bee keeping. Around Kakamega Forest National Reserve communities KWS, National Museum of Kenya and other conservation organisations operating have supported community, women and youth groups have been supported to start bee keeping projects. These projects are dependent on the forest and besides being a good avenue for income generation, communities are taught to appreciate the inter-dependence between forest conservation, local development using revenue generated from sale of honey and butterflies, and improved community welfare. Similar projects are planned for Ruma, Amboseli and Saiwa Swamp National Parks.

The foregoing KWS-community efforts are being enhanced through collaboration, partnerships, CBC and education and outreach strategies. These strategies promote bonding between communities and other stakeholders, co-management of resources and awareness creation. Hence, from the discussion, it is evident that although strategies used by KWS under the community wildlife service programme have brought positive changes and benefits to communities living adjacent to the four PAs, they have been faced with challenges among them inadequate grassroots support for projects and activities started under CWS and CBC (72%), changing/antagonistic attitudes and perceptions towards protected areas, KWS and its role in conservation and local community empowerment through the projects, wildlife and wildlife conservation initiatives (68.7%), conservatism among some community members some of whom were opposed to the CWS and CBC initiatives and projects (64%), inadequate funds to mobilise communities and their resources to support CBC and CWS initiatives (62.6%), and inadequate support/goodwill from the county and national governments. Despite this, KWS and local communities have adopted measures such as enhanced education and extension and implementation of outreach programmes and activities to promote awareness. KWS in collaboration with communities and other stakeholders particularly conservation organizations organize and support exchange visits for community groups to areas with similar projects. These views were supported by all the KWS staff interviewed.

Results revealed that despite KWS's positive role in enlisting local support for protected area management and wildlife conservation, emerging issues like climate change and its implications on wildlife and community livelihoods has undermined CWS, CBC, CBWM and

CBNRM initiatives. As documented by Leader -Williams *et al* (1996), CWS like other CBC programmes and initiatives in Africa and other parts of the developing world delays the transfer of benefits to local people and initiation of development projects. There is also laxity in capacity building and setting up participatory monitoring and evaluation systems that have a local focus. These constraints have continued to undermine the effectiveness of the CWS programme and initiatives under it, as well as strategies used to promote them. Lastly, most initiatives and projects established under CWS have not effectively devolved power and responsibilities as well as authority to local people in the study areas surveyed. Hence, the goal of empowering local communities to be masters of their own destiny and actors in conservation has not been fully achieved. These observations concur with those documented by IIED (1994), AERDD (1996) and Leader-Williams *et al* (1996).

Besides KWS, there are many other conservation organisations that use most of the strategies cited above to promote local community participation in wildlife conservation in the study areas. These include Eden Trust (Saiwa), Nature Kenya (KFNR) and William Sheldrick Trust (Amboseli).

Conclusions

Three forms/types of participation were identified in the study areas namely active, passive and token participation.

Various strategies under the CWS programme and conservation framework are used to promote community involvement in wildlife conservation. Notable among these are consultative meetings, education and outreach, benefit sharing, collaboration, enterprise development, community based conservation, integrated conservation and development projects, and formation of partnerships. The effectiveness of these strategies in promoting community participation was however, varied.

Various challenges among them inadequate grassroots support, changing/antagonistic attitudes and perceptions, conservatism among some community members, inadequate funds to mobilise communities and their resources to support CBC and CWS initiatives and inadequate government support/goodwill. These challenges are due to both internal (from within the communities) and external factors (from the government and its management institutions as well as conservation organizations).

Recommendations and way forward

There is need for increased community awareness through education and outreach programmes to enable the communities have access to information on wildlife conservation and viable projects. This will empower them and reduce pressure on protected area resources. .

More funding from the government through Kenya Wildlife Service should given to projects and activities initiated CWS and CBC to make them sustainable. This can be enhanced if more financial, material and technical support can be sought from conservation organizations and development partners, or local leaders and community members through representatives lobby the government and conservation organisations for more support.

Community members should be trained and equipped with financial and management skills, as well as skills in writing project funding proposals. Kenya wildlife Service should take this initiative in collaboration with others.

References

- Agricultural Extension and Rural Development Department (AERDD) and African Wildlife Foundation (AWF), 1996. People and conservation. *The Rural Extension Bulletin*. University of Reading, United Kingdom.
- Barrow, E. 1996. "Partnership and empowerment: Community conservation approaches and experiences from East Africa". In AERDD and AWF 1996. People and conservation. *The Rural Extension Bulletin*. Issue No. 10. AERDD and AWF, Reading, UK: 5-13.
- Barrow, E., Gichohi, H. and Infield, M. 2000. Summary and key lessons from a comparative review and analysis of community conservation in Eastern Africa. IUCN, Gland, Switzerland.
- Borrini-Feyerabend, G. and Buchan, D, 1997. Beyond fences: Seeking social sustainability in conservation. Vol 1: A Process Companion. International Union for Conservation of Nature (IUCN), United Kingdom.
- De Boer, W. and Thijssen, M. H. 2007. Participatory tools working with crops, varieties and seeds. Wageningen UR, The Netherlands.
- Goodwin, P. 1998. 'Hired Hands' or 'Local People': Understandings and experiences of local participation in conservation. *Trans Inst Br Geogr* 23:481-499.
- International Institute for Environment and Development (IIED), 1994. Whose Eden? An Overview of Community Approaches to Wildlife Management. Russel Press, Nottingham, UK.
- Ipara, H. 2013. Local community perspectives on community-based sustainable tourism development. In *Tourism, Nature and Environmental Education in Africa* by van der Duim, R., Klep, G. and Ahebwa,
- Ipara, H. and Odwori, P. 2015. Role of Indigenous Knowledge Systems in Promoting Sustainable Wetland Management. *Journal of Science and Applied Technology* (JSAT) Vol 2 No. 1 2015. PP 190 – 209.

- Ipara, H. I., 2004. Indigenous wildlife resource management systems of the Isukha community of Western Kenya. An unpublished PhD Thesis. Moi University, Kenya.
- Ipara, H., Odwori, P. and Mugalo, I. 2014. Promoting development through sustainable wetland management. *African Journal of Education, Science and Technology*, July, 2014 Vol 1, 127-134.
- Kenya Wildlife Service (KWS), 1990. A Policy Framework and Development Programme 1991-1996. KWS, Nairobi, Kenya.
- KWS, 1996. Land Use and Wildlife Conservation. A Policy Proposal for Land use Planning and Co-ordination, KWS, Nairobi, Kenya.
- Leader-Williams, N., Kayera, J. A. and Overton, G. L. (eds), 1996. Community-based Conservation in Tanzania. IUCN, Gland, Switzerland.
- M. W (Eds), 2013. Association for Tourism and Leisure Education (ATLAS), Arnhem: Netherlands. ISBN: 9789-90-75775-74-7, PP 48-57.
- McNeely, J. A. (ed), 1995. Expanding Partnerships in Conservation. Island Press, Washington DC, USA.
- Metacalfe, S. 1994 'The Zimbabwe CAMPFIRE'. In Western, D. and Wright, R. M. 1994. Natural Connections: Perspectives in Community-based Conservation, Island Press, Washington DC, USA. PP 161-192.
- Neumann, R. P. 1997. Primitive Ideas: Protected Area Buffer Zones and the Politics of Land in Africa. *Development and Change*, Vol 28: 559-582.
- Odwori, P.O. Ipara, I. and Obare, D. F., 2014. An analysis of land use options in Kitengela and its effect on conservation and management of Nairobi National Park. *African Journal of Education, Science and Technology*, July, 2014 Vol 1, No 4. PP 135-141.
- Seno, S. K. 1998. Strategies for Enhancing Local Support for Wildlife Conservation in Maasailand, Kenya. An unpublished Ph.D. Dissertation. The University of Arizona, USA.
- United Nations Environment Programme (UNEP), 2007. Synthesis report on Sudan post-conflict Environmental Assessment Nairobi, Kenya.
- Wells, M. Brandon, K. and Hannah, L. 1992. People and Parks: Linking Protected Area Management with Local Communities. World Bank, World Wide Fund and Us agency for International Development, Washington, D.C.
- Wild, R. G. and Mutebi, J. 1996. Conservation Through Community Use of Plant Resources: Establishing Collaborative Management at Bwindi Impenetrable and Mgahinga Gorilla National Parks, Uganda. UNESCO, Paris, France.