

# POLICY BRIEF

September 2019

## BILLIONS LOST TO HUMAN WILDLIFE CONFLICTS!



### KEY HIGHLIGHTS

- Between 2005 and 2016, 21,727 cases of crop raiding, 6,768 cases of livestock depredation and 1,152 cases of property damage were reported
- Between 2010 and 2015, 1422 elephants and 10 lions were killed due to conflicts
- The unpaid compensations for death and injury cases between 2014-2016 are worth KES 2.2 Billion
- Human Wildlife Conflicts (HWCs) are wide

spread in all the 47 counties with 10 of them now being conflict hotspots.

- HWCs challenge Agriculture and Tourism sectors which account for 35 and 12 % of the Kenya's Gross Domestic Product, respectively.
- Mechanisms to address HWCs are inadequate, and needs urgent attention

## Introduction

Human Wildlife Conflicts (HWC) are interaction between wildlife and people and the resultant negative impacts on people and/or their resources, or wild animals and/or their habitat. The conflicts affect Kenya's economy, wildlife conservation and threaten human safety and livelihoods. A number of factors have continuously influenced the spread and magnitude of HWC (Fig.1).

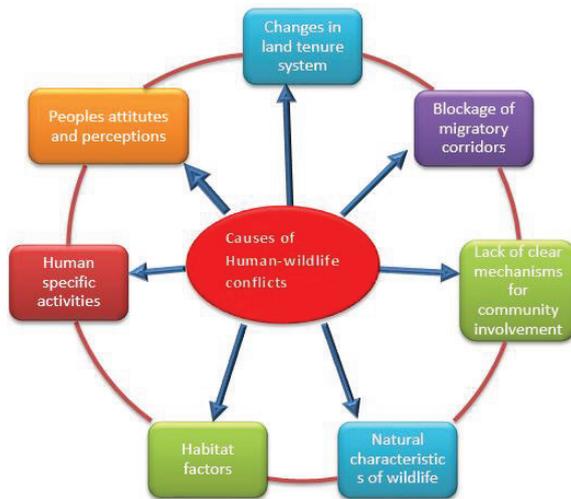


Figure 1: Causes of Human-wildlife conflicts

HWCs have been high: between 2005 and 2016, a total of 21,727 cases of crop raiding, 6,768 cases of livestock depredation and 1,152 cases of property damage were reported to Kenya Wildlife Services. The most common types of conflicts are shown in Fig. 2 (Kenya Wildlife Service; Office of Auditor General, 2018). These trends are stressful to local communities who bear the greatest brunt of the conflicts.

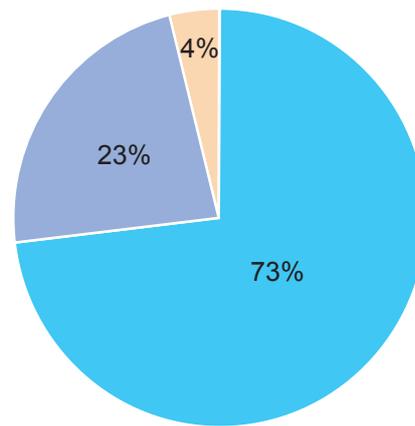


Figure 2: Most frequent types of Human-wildlife conflicts



- Losses from: crop raiding, livestock attacks, injury and death of wildlife and people
- Negatively affects Tourism and agriculture sectors



- Decline in biodiversity and extinction of some species
- Negatively influences community attitudes and perceptions towards wildlife and its conservation

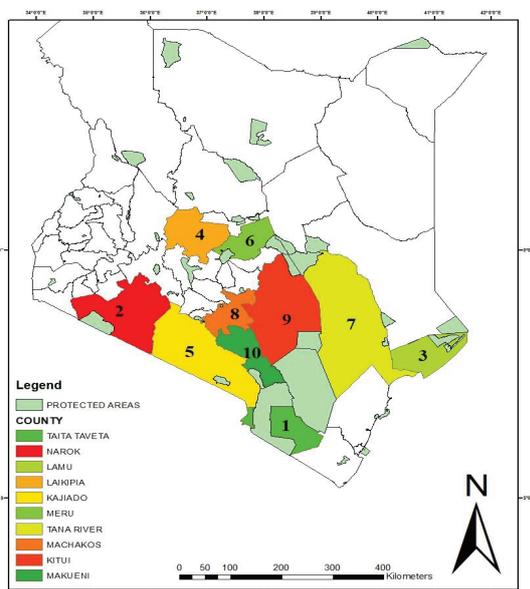


- Interferes with school going children
- Alters socialization of people especially in hotspot areas

## HWCs Continue Robbing Kenya!

HWCs have a number of negative impacts (Fig. 3) and are currently widespread in all the 47 counties. Ten of these are now conflict hotspots: Taita Taveta, Narok, Lamu, Laikipia, Kajiado, Meru, Tana River, Machakos, Makeni and Kitui (Fig. 4).

Figure 3: Negative impacts of human-wildlife conflicts



At 35 % agriculture is the largest contributor to Kenya's GDP. Most of the farming is done by small scale farmers who share their land with > 70 % of the wildlife, hence, crop raiding is the main form of HWC affecting mainly maize (54%), tomatoes, beans and bananas in order of magnitude. Maize is the staple food of Kenya and these conflicts thus serve to increase desperation of already impoverished farmers and exacerbate Kenya's food insecurity. Wildlife species which are key for tourist attraction are also a leading cause of conflicts. Some of these have been killed by people in retaliation to conflicts caused (Table 1).

Figure 4: Human-wildlife conflicts hotspot counties in Kenya

HWCs have negatively influenced local community livelihoods and their attitudes towards wildlife conservation. This is partly attributed to losses incurred and the lack of compensation for most of them. For instance, human injury and death causes the family and community a lot of pain and agony, while compensation claims running into billions of money have not been implemented (Table 2.). This is in addition to costs associated with crop and livestock losses.

## Managing Conflicts In Kenya

Many methods have been used in the past. However, stakeholder involvement especially the local community has ineffectively been employed. The Wildlife Conservation Act, 2013, sets out important principles for HWC management that include effective public participation in the management of wildlife resources, thereby setting a basis for strengthening community based natural resources management. Effective public participation will however depends on the operationalization of the Wildlife Conservation Act of 2013, which among other things calls for the establishment of platforms for stakeholder participation at the various levels of governance and developing innovative approaches. There is an incomplete operationalization of the County Wildlife Conservation and Compensation Committees (CWCCC). The Kenya Wildlife Service only set up 35 committees instead of 47 by November, 2015, which are yet to be operationalized hence stakeholder participation continues to be a challenge (Office of the Auditor General, 2018). Key stakeholders and more so the local communities who are disadvantaged in many ways are thus not represented in setting up strategies for HWC management. Nobody has been compensated for either loss of life or property damage since 2013 even though compensation claims have been presented for consideration. The community has also not benefitted from the benefit sharing scheme envisioned by the Act. Therefore, the communities are yet to realize the benefits envisioned in the Act as far as compensation is concerned, which has not helped in changing their view of wildlife as KWS-owned. This is likely to lead to more HWCs. The KWS, as the custodian of Kenya's wildlife needs to sensitize the local communities on its functions in an effort to create a good rapport with them.

## Technology Can Help: Using Participatory GIS for Holistic Management of HWCs

The foreseeable long-term approach to managing HWC is seen to be an effective multi-stakeholder participation coupled with land use planning. As proposed by Hoare (2011), Mbau (2013) and UNEP (2019) a bottom-up

**Table 1:** Number of elephant and Lion deaths resulting from HWCs between 2010 and 2015

Animals	2010	2011	2012	2013	2014	2015	Total
Elephants	187	289	384	302	164	96	1,422
Lions	0	3	3	1	0	3	10
Total	187	292	387	303	164	99	1432

Source: Office of the Auditor-General (2018)

**Table 2:** Unpaid compensation cases between the years 2014-2016

Type of conflict	Number of Cases	Cost of Compensation in KES
Human Injury	2,029	990,188,000
Human Death	274	1,245,200,000
Total	2,303	2,235,388,000

Source: Office of the Auditor-General (2018)

approach which engages all the stakeholders and bridges the various knowledge gaps between levels of management and governance of resources is necessary. However, this calls for level playing ground by all stakeholders **in understanding the root causes of conflict in order to find solutions together, propose strategies and own the process.** This way the proposed strategies will be easily acceptable by local communities who are in most cases the implementers. The need for technologies that can bridge-in the technological and knowledge gaps between stakeholders is thus inevitable in understanding the root causes of conflicts. The local communities are disadvantaged by modern technologies for analysis of their problems and confronted by the various cultural norms and different levels of education. Therefore, proposals made using modern technologies and by natural resource managers without involvement of local communities are in most cases met with resistance and low uptake. The move is seen by local community in-terms of management strategies being imposed on them. PGIS technology effectively bridges this gap. Earlier testing in Taita-Taveta County (Kenya's number one HWC hotspot) showed that once applied in problem analysis, local community not only easily understood the causes but also **owned their contribution to the conflicts, and became very willing to cooperate in their management.** Through PGIS local communities were able to articulate the root causes of conflicts (Fig 6) and propose realistic strategies for their management (Mbau 2013). In addition, local communities visualized HWC differently from before i.e. conflicts are not about the wildlife but are entangled by processes and resource changes driven by people.

Overall, a multi-participant process is a meaningful approach in resolving HWCs with a view of lobbying for social acceptability, enhancing environmental sustainability of wildlife resources and making wildlife an economically viable land use option in the eyes of local communities.

## PGIS the Way to Go:

1. Will lead to win-win situation for managers, planners and local communities in evaluating the opportunity costs for different approaches in managing resources
2. Allows local communities and other stakeholders to participate in HWC management through communication and direct involvement.
3. Campaigns for sustainable use of land resources and convinces local communities to participate and uptake strategies implemented.
4. Offers communities the opportunity to contribute to policy development and or review and own problems irrespective of their age and level of education.
5. Helps in equipping the managers "tool box" through improved understanding and integrating stakeholders in the development of applicable and sustainable HWC management strategies.
6. Has the potential to enhance transparency, empowerment, dialogue and negotiation from existing positions.
7. Stimulates innovation and social change for better resource conservation.



**Figure 6:** Communicating the root causes of HWCs through mental mapping of land use changes

## What needs to be done:

KWS as the lead government agency in dealing with HWCs should:

- o Strive to address the conflicts using appropriate technologies such as PGIS to promote bottom up approach and stakeholder participation
- o Mobilize communities to map wildlife corridors starting with the conflicts hotspots
- o Encourage land use planning with priority being the hotspot counties
- o Improve wildlife habitats in Protected areas
- o Work with all relevant stakeholders to help local communities enhance protection and sustainability of their resources and property
- o Operationalize County Wildlife Conservation and Compensation Committees (CWCCCs)
- o Pay due compensations owed to people
- o Improve on benefit sharing with local communities

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