MANAGING CARNIVORE – LIVESTOCK
CONFLICTS IN AMBOSELI NATIONAL PARK, KENYA

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Kenya Wildlife Service

ON 3th NOVEMBER, 2010.
INTRODUCTION

HUMAN-WILDLIFE CONFLICT

DEFINITION: “Any interaction between humans and wildlife that results in negative impacts on human social, economic or cultural life, on the conservation of wildlife populations, or on the environment.” (WWF, 2005)
**PROBLEM ANIMAL**: We need to be careful when defining this term.

- Potentially, all wildlife species will compete with humans for access to habitat, food and water.

- However, some individual animals may habitually select or target crops and livestock.
GENESIS OF HUMAN WILDLIFE CONFLICT:

Dates back to era after stone age, during agrarian revolution when man first domesticated crop - plants and animals as livestock.
INTRODUCTION

• Human-Wildlife Conflict is fast becoming a serious threat to the survival of many endangered species in the world.

• Poor understanding of the ecological and social underpinnings of this human–wildlife conflict in many parts of the world hampers effective conflict management and conservation programs.
INTRODUCTION

• In Kenya, severe livestock - carnivore conflict is largely observed in Arid and semi arid inhabited by pastoralists communities, in part Maasai stepped (Amboseli and Maasai mara), Samburu and Nothern.

• Escalation of Livestock predation & retaliatory persecution a major conservation concerns.
INTRODUCTION

• Amboseli ecosystem is classified as hotspot for human - wildlife conflict because of enormous livestock depredation by carnivore and subsequent killing.

• The situation is rather complex because large carnivores range inside and outside the park on communal group ranch dominated by livestock and people.
STUDY AREA

- Amboseli National Park
- Olgulului group ranch
- Kimana group ranch
MATERIAL AND METHODS

MONITORING LIVESTOCK PREDATION

• All incidences of human carnivore conflict occurrence was attended physically and verified.

• Details on: date of the occurrence, time, livestock owner, Place name/GPS coordinates, livestock types and age, predator species involved were recorded.
MATERIAL AND METHODS

MONITORING LIVESTOCK PREDATION

• For the purpose of compensation, reports on predation incidences was categorized into three major aspects.

Category 1: No fault/predation unavoidable

Category 2: Livestock lost/herd by children and

Category 3: Poorly fenced boma.

• 90 people from 6 villages were also interviewed
RESULTS: TREND AND INTENSITY OF CARNIVORE - LIVESTOCK CONFLICTS

Livestock predation by carnivores, July, 2009 - July, 2010

Number of livestock killed

Months


Cattle
Shoat
Donkey
TREND AND INTENSITY OF HUMAN - LION CONFLICTS AROUND ANP
RESULTS: TREND AND INTENSITY OF CARNIVORE - LIVESTOCK CONFLICTS

Frequency and number of livestock killed July 2009 - July 2010

<table>
<thead>
<tr>
<th></th>
<th>Cattle</th>
<th>Frequency</th>
<th>Number</th>
<th>Shoat</th>
<th>Frequency</th>
<th>Number</th>
<th>Donkey</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lion</td>
<td>89</td>
<td>65</td>
<td>100</td>
<td>71</td>
<td></td>
<td>46</td>
<td>41</td>
<td></td>
</tr>
<tr>
<td>Hyena</td>
<td>78</td>
<td>65</td>
<td>1478</td>
<td>589</td>
<td></td>
<td>101</td>
<td>89</td>
<td></td>
</tr>
<tr>
<td>Cheetah</td>
<td>9</td>
<td>9</td>
<td>241</td>
<td>181</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Leopard</td>
<td>8</td>
<td>8</td>
<td>17</td>
<td>14</td>
<td></td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Jakal</td>
<td>1</td>
<td>1</td>
<td>141</td>
<td>118</td>
<td></td>
<td>0</td>
<td>0</td>
<td></td>
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</tbody>
</table>
RESULTS: DISTRIBUTION OF CONFLICT AROUND THE PARK

Human carnivore conflict distribution around Amboseli NP
July 2009 - July 2010

Legend
- CHEETAH
- HYENA
- JACKAL
- LEOPARD
- LION
  - Amboseli NP roads
  - Artificial waterpoints
- major roads
- Swamp

Kajiado district - Area utilization
- Masai Ranch
- RANCHES
  - Olugulului_W
  - Olugulului_S
  - Olugulului_N
  - Olugulului_E
  - Kimana
  - Amboseli-NP
## Community Reaction: Lion Spearing & Poisoning

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of lions killed</th>
</tr>
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<tbody>
<tr>
<td>2001</td>
<td>20</td>
</tr>
<tr>
<td>2002</td>
<td>31</td>
</tr>
<tr>
<td>2003</td>
<td>12</td>
</tr>
<tr>
<td>2004</td>
<td>19</td>
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<tr>
<td>2005</td>
<td>17</td>
</tr>
<tr>
<td>2006</td>
<td>25</td>
</tr>
<tr>
<td>2007</td>
<td>9</td>
</tr>
<tr>
<td>2008</td>
<td>5</td>
</tr>
<tr>
<td>2009</td>
<td>1 – Killed by buffalo</td>
</tr>
<tr>
<td>2010</td>
<td>16 (6 natural)</td>
</tr>
</tbody>
</table>

*Killed by buffalo*
COMMUNITY REACTION: LION POISONING
LIONS SPEARING
ATTITUDE AND PERCEPTION OF LOCAL COMMUNITY TOWARDS CARNIVORES & PARK

Response from village with cultural boma

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 Eliminated the park?</td>
<td>5</td>
<td>11</td>
<td>1</td>
<td>15</td>
<td>16</td>
<td>0</td>
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<tr>
<td>Cultural boma Inchurrah</td>
<td>5</td>
<td>11</td>
<td>4</td>
<td>12</td>
<td>15</td>
<td>1</td>
</tr>
<tr>
<td>Cultural boma Olasiti</td>
<td>5</td>
<td>8</td>
<td>0</td>
<td>13</td>
<td>11</td>
<td>2</td>
</tr>
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</table>

Response from village with no cultural boma

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q3 Eliminated the park?</td>
<td>1</td>
<td>15</td>
<td>3</td>
<td>13</td>
<td>11</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural boma Endonyo</td>
<td>5</td>
<td>10</td>
<td>0</td>
<td>15</td>
<td>11</td>
<td>4</td>
<td></td>
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</tr>
<tr>
<td>Cultural boma Olmeny</td>
<td>11</td>
<td>5</td>
<td>2</td>
<td>14</td>
<td>12</td>
<td>4</td>
<td></td>
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</tr>
</tbody>
</table>
• Rural economy and dependence on livestock as source of wealth & livelihood

• Human population growth and land use transformation

• Close settlement and access of community to use resources from the park.

• Perception and cultural practices of killing lions as prove of been a real man.
CLIMATIC FACTOR & IMPACT OF DROUGHT - DECLINE IN WILDLIFE PREY BASE

AERIAL CENSUS RESULT 2007 - 2010
IMPACT OF DROUGHT ON ZEBRA AND WILDEBEEST.

Impact of drought on key prey species

- **Zebra**
- **Wildebeest**

- Year 2007
- Year 2010

Number of animals over time.
INTERVENTION MEASURES BY KWS AND STAKEHOLDERS

1. Boosting of prey population base
   • KWS translocated zebras and wildebeest

2. Rapid deployment of problem animal management unit (PAMU)

3. Education and awareness
4. PREDATOR PROOF BOMA.
5 COMPENSATION SCHEME

- Introduced in 2008, still on pilot base
- Livestock killed by five large carnivores are compensated at ½ market price.
- Programme has management committee and verification team
- Has certain criteria to assess livestock loss are genuine

- Cattle – 15,000 (EURO 150) - 20,000 (EURO 200)
- Shoat – 5,000 (EURO 50) - 9000 (EURO 90)
- Donkey 10,000 (EURO 100) – 15,000 (EURO 150)
6. RESEARCH & MONITORING.

[Image of two lions and a map of lion movements in Amboseli National Park, Kenya.]

[Image of a person holding a radio antenna on a car roof, likely monitoring wildlife.]
• Conservation of predators outside protected areas will depend largely on how communities tolerate and coexistence with them.

• To sustainably conserve large carnivores, there is a need to protect rural livelihoods, reduce their vulnerability, and counterbalance losses with benefits and foster community-based conservation.
ACKNOWLEDGEMENTS

**KWS**: Senior warden and staff ANP

**Leiden University-CML**: Hans De Iongh

**NUFFIC**

**LEO FOUNDATION**

**Ogulului predator compensation**: Moko, Manyara, Patrick.
Thank you