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Introduction

- Human livestock populations are ever increasing and expanding into wildlife areas. This has led to increased Human Wildlife Livestock Conflict (HWLC) at interfaces of shared resources. Some conflicts like human livestock injuries and fatalities, property destruction and livestock depredation in many of the low income countries.
- In Kenya, The Kenya Wildlife Service (KWS) and Department of Veterinary Services (DVS) have been tasked to manage these conflicts. However, the availability of officials, experts, and researchers to be sent on surveillance is constrained by availability of resources.
- Hence, local citizens are encouraged to report HWLC for further action and compensation.
- HWLC reporting by local citizens is influenced by their capability and motivation to report. We investigate what are the different sources of capability and motivation that influence their decision to report HWLC

Materials and methods

Case Study Area: Ol Pejeta Conservancy Communities, Laikipia County in central Kenya (Figure 1)

Types of reports voluntarily made by citizens: HWC: (1) Deaths, injuries, predation, crop and property damage, (2) insecurity, (3) livestock diseases (mainly zoonotic);

Household Data Collection: 279 Household surveys was done in October 2018 with help of local enumerators. They collected data using the smart phones loaded with Open Data Kit (ODK) forms.

Analyses: Logistic Regression was carried out in R-Statistical Package to determine sources of variation that influence local citizen reporting HWLC.

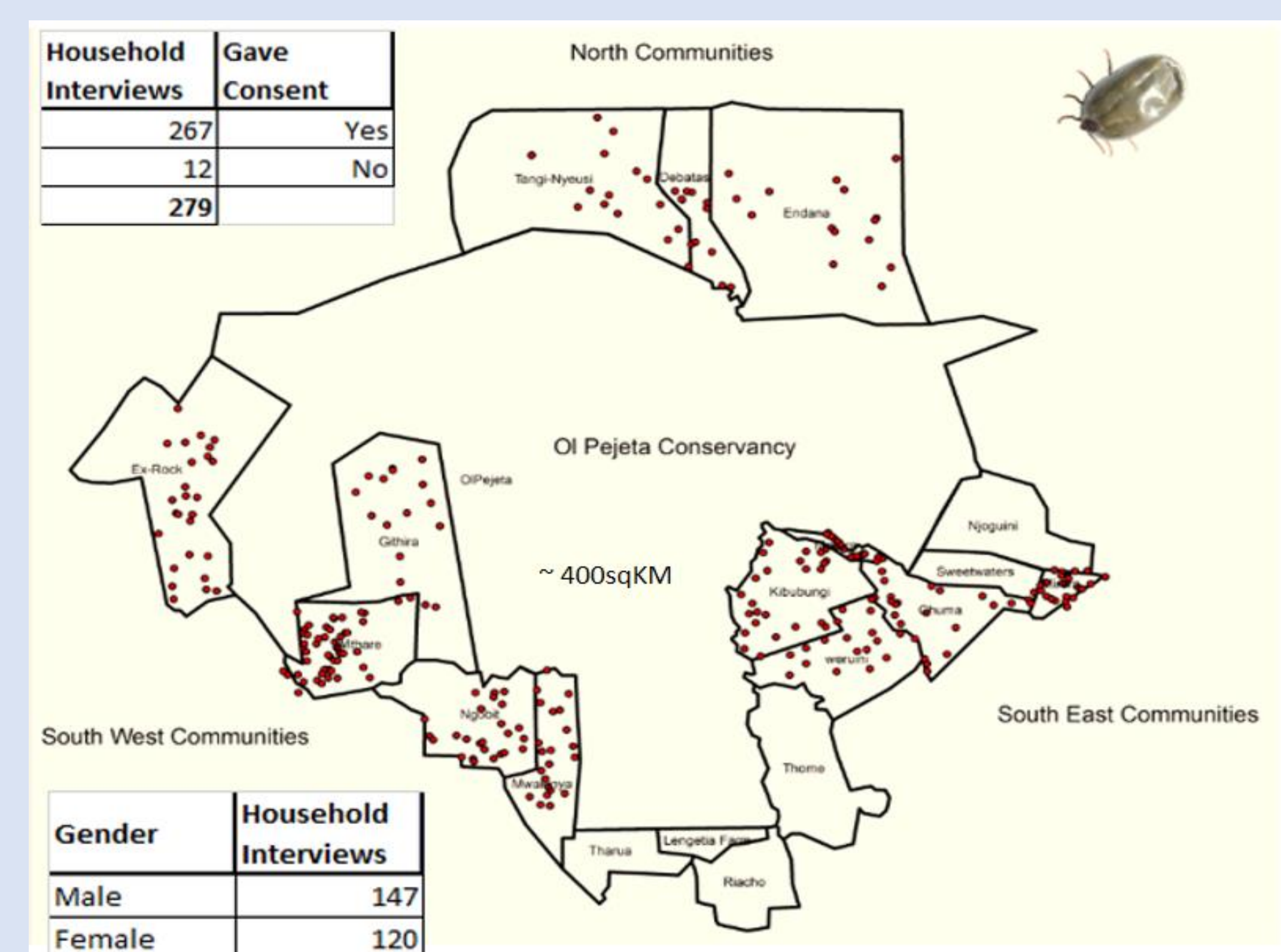


Figure 1. Map Showing Ol Pejeta Conservancy Communities, Laikipia County in central Kenya

Achievements

- Some of the outputs are in Figure 2: (i) the left Figure, shows proportion HWLC reports that local citizens report; (ii) the right Figure, shows summary results of sources that influence capability and motivation of local citizens to report HWLC.
- These preliminary results show determining the sources of variation in local citizen reported data would help in interpreting HWLC and eventual risk maps of tick distribution

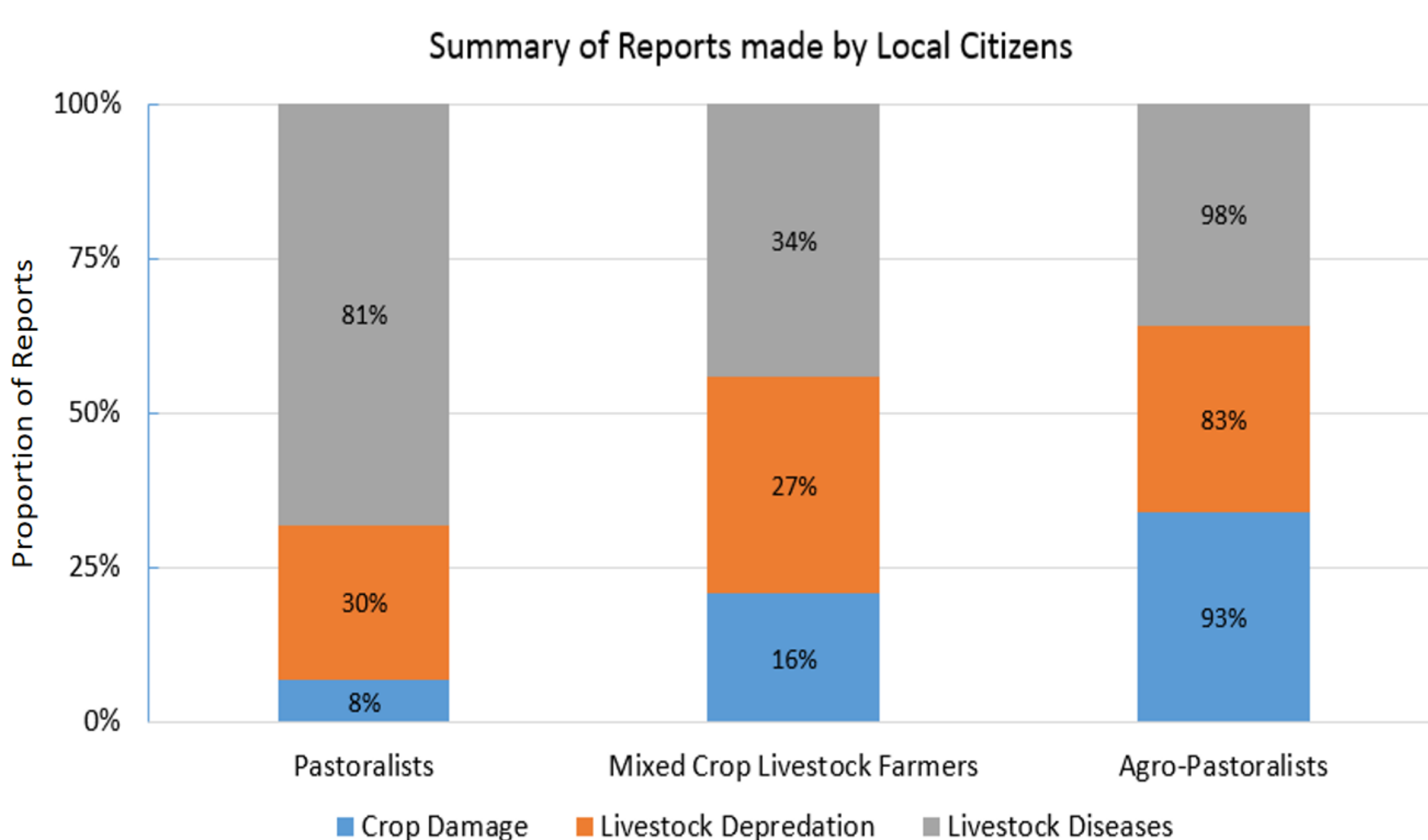


Figure 2. (i) Local citizen proportion of HWLC reports; (ii) Summary of sources influencing local citizen reporting HWLC

| HWL Conflict Description | Capability and Motivation Sources that influence the Decision(s) for Local Citizen(s) to Report HWL Conflicts | | | | | | | | | | | | | | | | |
|---------------------------|---|-----|-----------|-----------------------------|------------------------|-----------------------------|--------------------|-------------------|--------------------------|----------------------------------|-----------------------------|-------------------------|------------------------------|---------------------------|----------------------|------------------------|---------------|
| | Capability | | | Internal Motivation | | | | | | External Motivation | | | | | | | |
| | Does Sex of person reporting matter | Age | Education | Does Sex of Official matter | Experience of Official | Importance of Trust/Privacy | Receiver has Phone | Official is Aware | Availability of official | Frequency of meeting an Official | Availability of Electricity | Availability of Network | Availability of Compensation | Availability of Incentive | Increase in Distance | High Cost of Reporting | Reaction Time |
| Crop Damage | Yes | + | + | Yes | + | + | + | + | + | + | + | + | + | + | - | - | + |
| HWL Injuries & Fatalities | Yes | + | + | Yes | + | + | + | + | + | + | + | + | + | + | - | - | + |
| Property Damage | Yes | + | + | Yes | + | + | + | + | + | + | + | + | + | + | - | - | + |
| Livestock Diseases | Yes | + | + | Yes | + | + | + | + | + | + | + | + | + | + | - | - | + |
| Insecurity | ns | + | ns | ns | + | + | + | + | + | ns | + | + | ns | ns | ns | ns | + |

Note:
+ : positively influences reporting of HWL conflict
- : negatively influences reporting of HWL conflict
ns: non-significant

Acknowledgements

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