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Exploring Socioeconomic Drivers of Human–elephant Conflict through Community Workshops

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2021 EMA Small Grant Recipient

Project manager and PhD candidate Lynn Von Hagen and her mentors Drs. Chris Lepczyk and Bruce Schulte received an EMA small grant in 2021 to conduct community workshops in South-eastern Kenya. The Kasigau Wildlife Corridor (KWC) of Kenya experiences high instances of negative human–elephant interactions due to transitory wildlife moving between the country’s largest national parks, Tsavo East and Tsavo West. Local villages surrounding one of the community-owned ranches in the KWC, Rukinga Ranch Wildlife Sanctuary (an area of refugia for wildlife), experi-

ence crop-raiding by African elephants and other wildlife conflicts due to their proximity to the ranch. Much of the local population has only rudimentary resources, lacking access to indoor plumbing or electricity. Local farmers struggle to maintain food security in light of events such as crop-foraging by wildlife, drought, and varying environmental conditions exacerbated by climate change. Therefore, this lack of adaptive capacity contributes towards tensions between people and wildlife and can fuel retaliatory harm or killing of wildlife including endangered elephants. To help mitigate the impacts of crop-raiding,

understand the complexity of these issues in a socioecological system (SES), and build community resilience, a workshop program with six local villages was proposed. The workshops will hopefully be followed up by a longitudinal study that evaluates the curriculum presented at the workshops and explores any socioeconomic barriers to implementation. The goal of the workshops and the subsequent study is to provide more information on ways to improve the livelihoods of local people while preserving elephants, leading to human–elephant coexistence.

Project Progress

Travel restrictions were relaxed from the pandemic allowing travel back to Kenya in April 2021. At that time, a local research assistant from the community was retained to assist with conducting six workshops in the villages of Buguta, Bungule, Itinyi, Makwasinyi, Miasenyi, and Kisimenyi. With strict pandemic protocols to protect participants, outdoor or open-air venues were secured and local experts retained for establishing a curriculum for the workshops. A manual was produced that focused on five different strategies that helped mitigate crop-raiding and provide vital information for farmers: building deterrent methods, implementing sustainable agricultural techniques, alternative livelihoods, educational materials on how to live safely with elephants, and the importance of environmental preservation. Local experts gave talks and demonstrations on these strategies with the workshop and materials all produced in Swahili. All six workshops were successful and attended by almost 200 farmers from the six villages who were provided with a meal, trainings, and

the manual. The manual is available in Swahili and English and the information within is now available to any community in need of strategies to promote human–elephant coexistence. Local villagers were attentive during the sessions and appreciative of the opportunity to learn about ways to improve the situation surrounding human wildlife interactions in their communities.

Next Steps

A key component of this project is to evaluate the effectiveness of the workshops and understand social or financial barriers to uptake of the techniques by the local farmers. The same participants in the workshop were also part of a participatory study conducted in 2019. Thus, evaluation through surveys as part of a longitudinal study can not only measure changes in attitudes and behavior since that time, but also evaluate the effectiveness of the workshops. This effort is tentatively planned for June 2022, dependent on scheduling and pandemic restrictions. The survey can also highlight whether villagers felt the workshops were helpful and profile any difficulties with being able to implement the training. An understanding of the types of information needed to be passed from authorities and scientists to rural villagers and any barriers to implementation of said information is a key part of mitigating human elephant coexistence. This type of information can also contribute towards the scientific literature on the subject, inform future workshop initiatives, and is a key part of holistic plans to address elephant conservation and support community livelihoods.



LEFT: Villagers look on as local agricultural extension agent for Taita Taveta county, Mr. Gibran Mwanganda, talks about how to prepare soil for zai pits, an agricultural technique originating from Burkina Faso which help retain rainwater to increase crop yields. **RIGHT:** Participants in the community workshop from the village of Bungule pause with their manuals for a photo under the shadow of Mt. Kasigau. Photos by R. Lynn Von Hagen.