



Living in Harmony with Elephants 2016 Report

By Nancy Odweyo



Background

Living in Harmony with Elephants (LIHWE) is a four-part manual developed by Save the Elephants in collaboration with Disney's Animal Kingdom that teaches students conservation education with the aims to future wildlife ambassadors. Since its inception in 2012, LIHWE has reached out to over 500 students within the Samburu Isiolo Conservation Area (SICA). LIHWE is one of Save The Elephants (STE) Education Program's approaches that introduce young minds into the world of elephants, delighting them in the species' intelligence and diversity, and we remain indebted to Disney's Animal Kingdom educators for all the help they provided to develop this manual.

The first lesson equips students with knowledge on elephant ecology, exploring the species physiology, social interaction and its role in modifying the savannah. Next, learners are introduced to the importance of and threats to elephant habitats. The third lesson teaches learners how to protect themselves, their livestock, *manyattas* from elephants and while at it, securing a future for elephants and other wildlife.

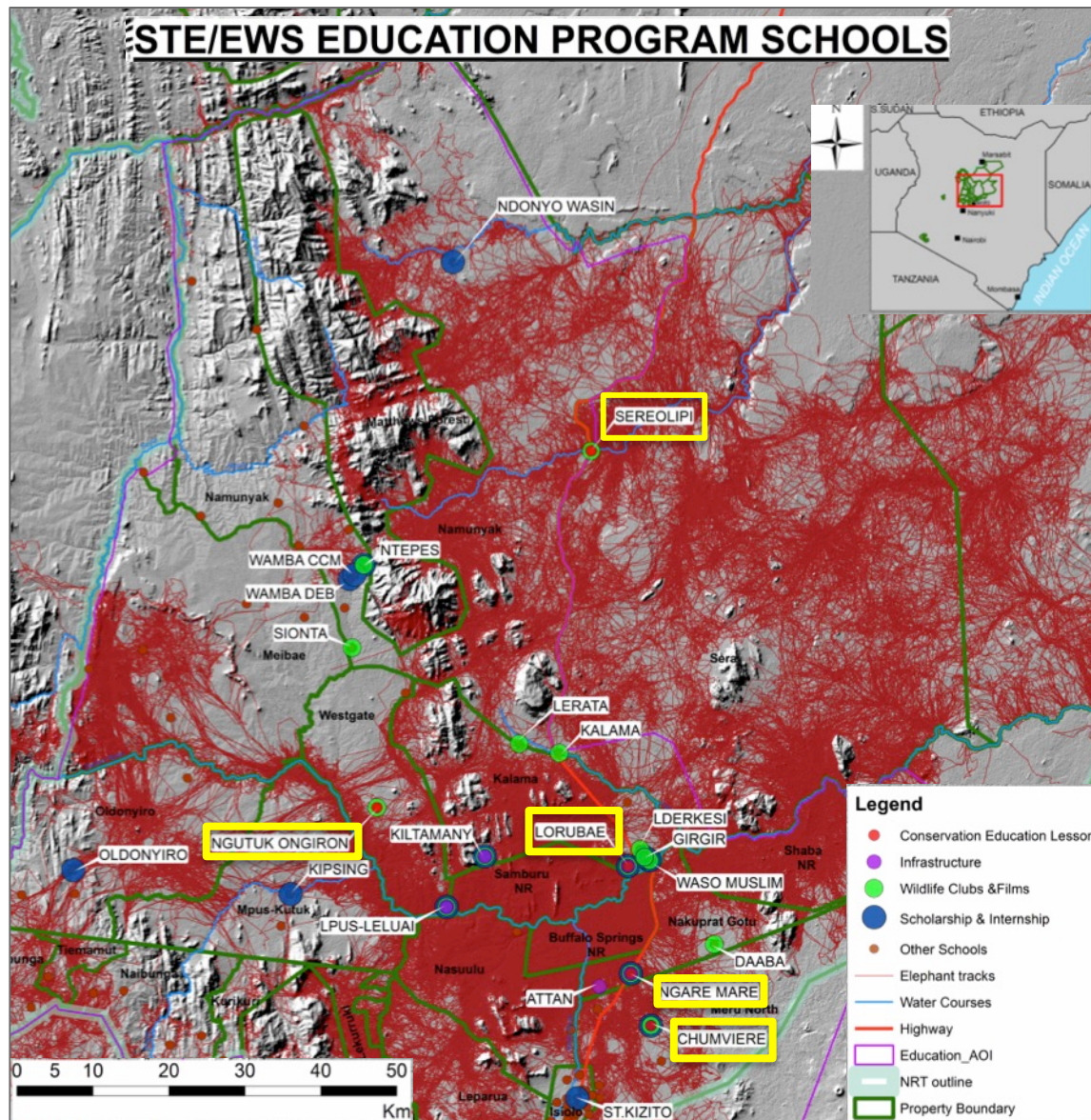


Photo 1 Daud (in Red), Field Education Officer talking to students when he hosted students in camp

The last and perhaps the most exciting lesson in the program is a trip to Samburu National Reserve. While on tour, learners observe elephants and other wildlife in the savannah. They are also taken on a tour of STEs research camp where they interact with elephant ecologists and engage in rudimentary mammal count and data analysis.

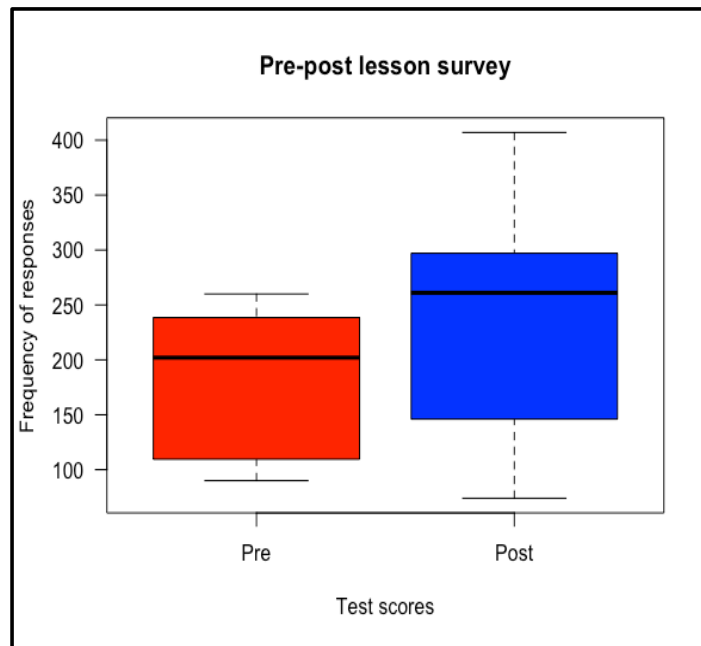
Methods and results

In 2016, the education team completed all four of LIHWE lessons across five schools in Samburu and Isiolo Counties. These schools are **Chumviere, Lorubae, Ngutuk Ongiron, Sereolipi and Ngare Mara** (Map appended below). Prior to conducting the lesson, a pre-evaluation survey was conducted among students aged 12-15 years to establish their knowledge of, attitude and behavior towards elephants (n=167). After the lessons, a post-evaluation test was administered to assess change in attitude, behavior and knowledge of elephants among students.



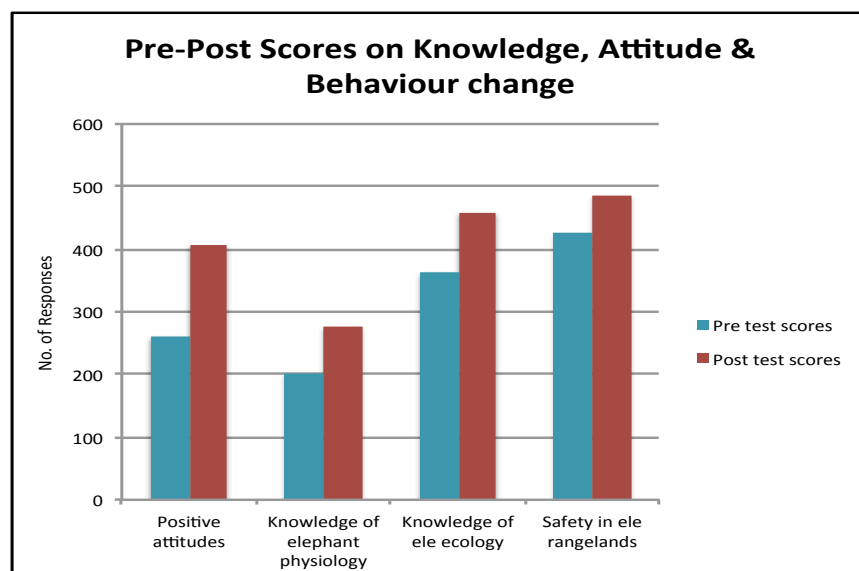
Map Showing the Reach of the STE/EWS Education Program across the North, overlaid with the tracking data gathered between 1998-2016. The school names marked in yellow (with location represented by a red dot) are our target schools for the LIHWE Lessons

Overall trends: Upon completion of LIHWE 2016 lessons, analysis of students' responses was determined. Results showed that there was significant difference in pre- and post-test scores across all five schools ($p=0.03$).



Boxplot 1 showing change in students' responses before (pre) taking LIHWE lessons and after (post) going through all four lessons conducted by Save the Elephants education team in the past year.

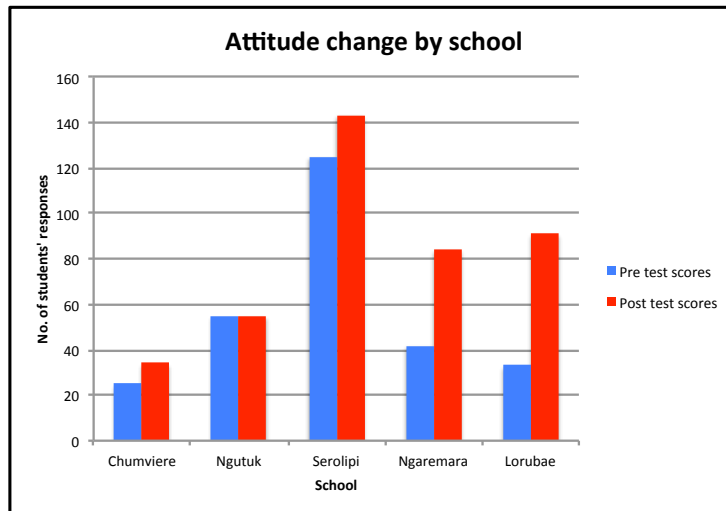
At the end of the program, students' knowledge of elephant ecology and behavioral safety measures increased as their attitude shifted for the positive.



Bar graph 1 showing students' knowledge of elephants, shift in attitude towards elephants and behavioral safety within elephant ranglands before and after LIHWE lessons.



Students' attitude towards elephants



Bar graph 2 shows notable improvement (positive change) in pre-post test scores across all but one school i.e. Ngutuk school whose scores before and after remained the same.

Pre-post percentage scores in knowledge, attitude & behavior

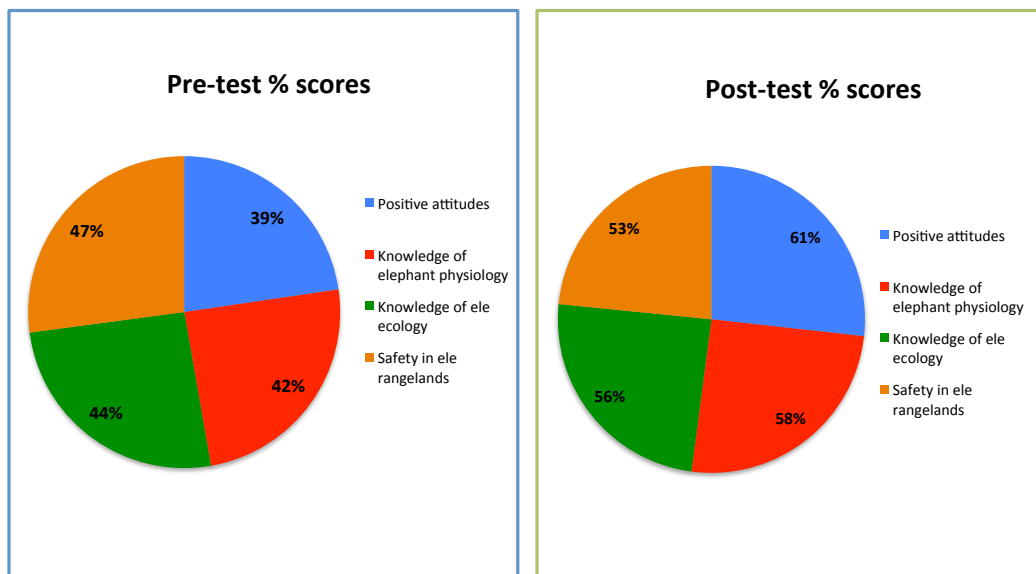
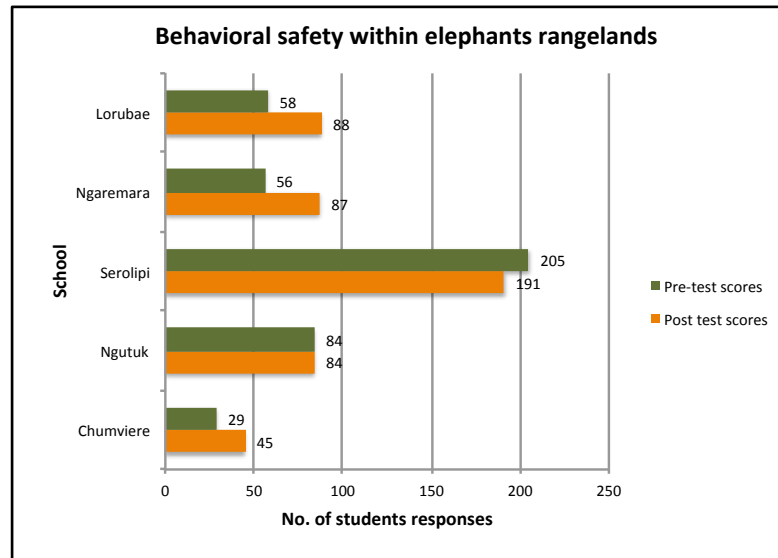


Chart 1 is a comparison between students' knowledge, attitude and behavior before learning about elephants and after. Post-test scores (right) indicate significant improvements in scores among students after taking our lessons.

Student knowledge on behavioral safety in elephant rangelands



Bar graph 3 is a representation of students' knowledge about safety in elephant rangelands by school. There is significant improvement in desirable responses in 3 out of 5 schools. However Ngutuk school is showing no difference at all while Serolipi school is showing a negative change in pre-post scores.

Discussions

Living in Harmony with Elephants mobile lessons aim to: 1) Create empathy for elephants; 2) Increase knowledge of elephant ecology and physiology among learners and to; 3) share and encourage actions that will keep learners, their families, and property safe. Promoting peaceful coexistence between man and elephants forms the core of STEs Education Program.

Knowledge of elephants and elephant habitats

Teaching about elephant ecology and social interaction amongst the species presents students with an opportunity to appreciate the unique world of elephants, threats to their lives and how man and elephant can co-exist in harmony.

At the start of the lesson, educators asked students in five participating schools what they knew about elephants. In certain instances, students mentioned elephant ivory as a core benefit. Only 44% of students recognized elephants as keystone species. Most learners tied tourism (an economic activity) as one benefit derived from elephants and other wildlife

in the area. However, at the end of the LIHWE program last year, 56% of students were able to appreciate the role of elephants in maintaining ecosystem health (**Chart 1**). Overall, students' knowledge of elephants increased across most schools.



Photo 2: Smiles of intrigued students going through one of the LIHWE lessons

Attitude shift

Before and after the lessons, students were asked Likert-scale questions that gauged their empathy and/or attitude towards elephants. The number of students 'strongly liking', 'respecting' and 'liking' elephants went from 39% to 61% when pre and post-test scores were compared (**Chart 1, Bar graph 1**). A liking and respect for elephants grew across four in five school. However, there was no change in attitude recorded in Ngutuk Ongiron primary school (**Bar graph 2**). Ngutuk Ongiron is one of few places in Samburu with semi-permanent water point. Even in the driest months, the water body has served as an oasis for both pastoralists and elephants. This often leads to human-elephant conflict and could explain students attitude (fear) towards elephants. It must also be noted that this was one school where the enthusiasm of the teacher to show how competent his school was at answering questions could have influenced their ability to answer honestly each time.



Photo 3: Two students read wildlife books donated by STE during one of STE school visits

Safety measures and behaviour in elephant rangelands

Teaching students about human-wildlife coexistence goes a long way towards equipping them with practical solutions aimed at reducing human-wildlife conflict. Compared to their pre-test scores, students across four schools showed significant increase in knowledge of behavioral safety in the post-test scores.

Conclusion

The education team continues to seek avenues to improve how it delivers its conservation message in the North and beyond. Encouraging results as discussed above help the program evaluate areas of success and improvement. From 2017, while we have adapted aspects of the curriculum we developed with Disney, we roll out a more integrated curriculum, highlighting newer and tougher challenges facing wildlife and the role of students in addressing them.