



We conserve only what we love: Importance of conservation communication in rural Sri Lanka

Key words: *Asian elephant, Human-elephant conflict, Protected areas, Conservation communication*

Science communication and conservation awareness

Communicating science to different audiences is a complex task requiring multiple skills. Its effectiveness varies with the complexity of the content, mode of communication, clarity of the message, the intellectual level of the audience, and the degree to which the content agrees with the receivers' knowledge, experience, values, and belief systems. Thus, the communicator must refine the message in order to communicate it to a relevant audience in the most convincing way. Transparency in communication, the use of facts, and evidence-based sciences should be given priority. The audience should be encouraged to ask questions in order to promote clarity and enhance open dialogue. Successful communication will result in a better understanding and appreciation of science, desired behavioral changes of audiences, organic spread of the message, and even subsequent influence on policy decisions.

Conservation dialogue with the general public is challenging. Because nature conservation can be a contentious topic, only a more informed public can make better decisions and consider environmentally responsible behavioral changes. A Senegalese forestry engineer, Baba Dioum, said in 1968, *'In the end, we will conserve only what we love, we will love only what we understand, and we will understand only what we are taught.'* We present a case study from Sri Lanka that illustrates Dioum's words.

Environmental degradation in Sri Lanka

The island nation of Sri Lanka has a land area of 65,610 km² and is considered a biodiversity hotspot. In the 1950's, forests covered about 44% of the country. In 2019, forests covered only around 17% of the country. Global Forest Watch, an open-source web application designed to monitor the world's forest cover, shows a 5.5% reduction in Sri Lanka's total tree cover during the period between 2001 and 2020. Despite the array of ecological services provided by forests, they continue to be cleared mainly for settlements, cultivations, and development purposes. Politically-backed, illegal land grabbing has also increased over the last decade. Deforestation puts humans and wildlife into close contact in an ever-shrinking space. The outcome is human-wildlife conflict.

Asian elephants and people

The charismatic Asian elephant, a keystone species, is at risk due to deforestation. Elephants predominantly roam the dry zone of Sri Lanka, which covers two-thirds of the country and has 76% of the island's total forest cover. A recent 5x5 km grid-based survey found elephants occupy 60% of the island, almost entirely in the dry zone. More importantly, the survey shows 70% of elephant home range is overlapped with human settlements. Considering the loss of elephant habitat and the current human and elephant distribution in the dry zone, it is not surprising the country records the highest amount of conflict incidents on the globe. According to the Sri Lankan Department of Wildlife Conservation, in 2019 alone, 400 elephants and 121 people were killed due to human-elephant conflict.

The conflict runs beyond deaths. Crop raiding elephants can cause an economic loss of up to 30% of a farmer's annual income. The loss is exacerbated by concurrent property damage. Farmers' expenses on conflict mitigation increase even more if electric fences must be installed to protect their cultivations and home gardens. Chronic conflict induced by deforestation worsens rural poverty; however, deforestation continues. Therefore, we believe creating an elephant-based conservation dialogue among the rural communities of Sri Lanka is pivotal.

Elemotion Foundation and conservation awareness school programs

As a small, non-profit conservation organization working towards helping Asian elephants and the people connected to them, Elemotion Foundation strongly believes that conserving elephants is impossible without conserving their habitat. Over the last five years, the Foundation has been applying a holistic, ecosystem-based approach to create a conservation dialogue with rural communities affected by human-elephant conflict.

Elemotion Foundation conducts tailor-made conservation awareness programs for selected school groups. These groups live in conflict affected communities located around Protected Areas, such as national parks and forest reserves. Conservation communication is achieved through lectures, workshops, discussions, competitions, art and films, hands-on practical sessions, and field trips to Protected Areas. Art and creativity are the skeletons on which each program is developed. Different local taxonomic groups including elephants and ecosystem functions are discussed in these programs while working with various experts and art professionals. Student engagement is maximized with creative indoor and outdoor activities. For some children, visiting their local Protected Area and observing different species is the first step in appreciating wildlife in their neighborhood.

Some of the students who take part in these programs participate in a government backed initiative called the Young Environmental Pioneers Program, run by the Sri Lankan Central Environmental Authority and the Ministry of Education. These Environmental Scouts of different ages can complete activities as described by the government's program while also participating in the Elemotion Foundation's conservation programs.

The Foundation's holistic approach means engaging the community with the school conservation awareness programs. The local Department of Wildlife Conservation rangers are often involved in the school programs. They may be guides on field trips, instructors on conservation topics, or work alongside the children to pick up trash in a National park. The Foundation's conservation art contests are a hugely popular program. Experts from the art field participate as instructors and

judges. Parents and villagers come to view displays of the children's art. School officials present awards to the contest participants. Exposing the broader community to the children's conservation work not only educates that community but also instills enthusiastic support for the children's conservation knowledge and efforts. In turn, the children become conservation ambassadors in their local communities.

Along with conservation awareness programs for the school children, the Foundation also supports the rural schools themselves by investing in supplies, school activities, and infrastructure development. Examples include donated English books and art supplies, a field trip to a planetarium, uniforms for teacher, a library building, desks, and chairs. The Foundation believes investing in the success of schools is also investing in the success of students. Better education brings better livelihood opportunities for the youth. Such livelihood opportunities could allow the students to rise out of rural poverty and the land clearing and farming lifestyle of their parents.

Project outcomes

During the 5-year period, about 30 school education programs have been conducted in three districts of the country addressing children ages 6-18 years. Children are allowed to express their ideas in intriguing and interconnected ways so they can eventually link together the various components of the ecosystem functions, which ultimately supports elephants. The Foundation finds such conservation education programs are more effective with children who are already interested in science and conservation, such as the Environmental Scouts for example.

The effectiveness of such conservation education programs can be seen in three ways. 1. The local schools see the positive impacts of the educational activities on the children and make repeated requests for Elemotion Foundation to conduct more programs. 2. The schools invite us to cover topics of their concern, poaching and littering, for example. This means the programs are effectively tailored for the children to target specific conservation topics. 3. The local wildlife ranger offices recognize the importance of our programs and request to partner with the Foundation

in school programs. The teamwork of the local schools, the rangers, and Elemotion Foundation strengthens the community dialogue of species and habitat conservation.

Way forward

Effective conservation communication leads to behavioral changes in the audience. One of the Foundation's schools, Rathambalagama Junior School in Moeragala District, has the best participation in the Environmental Scout program. The headmaster, together with the staff and students, have managed to create an orchard of a few acres in the school yard. He mentioned that the scouts' proactiveness suggest their parents think twice before clearing more habitat for shifting cultivations and encourage the families towards tree planting in their home gardens. *Students are delighted to see and study the wilderness in their neighbourhood.* ', says the headmaster. *'We want to take the greening exercise beyond the school premises. A community forest is suggested in the village if a suitable plot can be identified. Roadside tree planting and diversifying the catchment of the local reservoir is also planned. Elephant habitats are being cleared at an accelerated rate in the area. Seeing that destruction urges us to take necessary steps towards forest conservation, no matter how small those steps are.'*, he further added.

Effective conservation communication can positively impact the public discourse and cause desired behavioral changes. Science/conservation communicators need to creatively find their niche and tailor their message to their audiences in order to be impactful. Choosing audiences with real-life contexts, such as local conservation issues, is an effective approach. A holistic approach can help spread the message beyond the originally intended audience and may trigger positive ripple effects.

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