

Title of grant: Get the ball rolling: Developing ecological awareness in local communities of Sri Lanka on indicators and ecosystem functioning, using dung beetles as the focal taxon

Nature is an integral part of Sri Lankan culture. Our ancestors, especially those engaged in agriculture learned from observing the nature, made the best use of the ecosystem services and lived in harmony with other organisms that share the niche. Today, this relationship has changed, where increasing population and consumer demands, agrochemicals and pests have sadly mutilated a system that was once sustainable.

The outreach program funded by BES and coordinated through TERN, engaged education programs and discussions on biodiversity and ecosystem functioning, with main focus on dung beetle, an organism known for its indicator potential and ecosystem functions it perform to inspire and enthuse people of different age groups about the science of ecology. We brought together individuals who were not previously interested as well as those who were knowledgeable either through standard education or traditional knowledge (without actually knowing the term ecology) to stimulate discussion about ecological impacts of habitat change, insect indicators (i.e. dung beetles), ecosystem services and benefits of facilitating healthy ecosystems. The ultimate goal was to increase public understanding and facilitate the conservation and use of ecosystem services to solve some of the day to day problems faced by the communities and implement practices to sustain ecosystem services overtime.

We engaged academic staff and also undergraduate students following a degree in natural resources management (NRM) and environmental science, as facilitators of the program this enabling their skills in communicating the science of ecology. These students once graduated and now possessing hands-on experience in dealing with local communities and addressing their problems will be better decision makers in their chose career in NRM. Follow up visits were made to three sites upto now and through the project we managed to build a network of individuals and communities, specially farmer communities and students with whom we will continue work in future and who will be monitored regularly.

Prior to conducting the actual programs, we made several site visits to network with farmer communities, make preliminary arrangements for school programs and enlist individuals/ organizations that could locally coordinate the programs. This networking benefited the project as well as the future work we are planning to implement.

The first four day program was held at Hambantota and Bundala (Dry / arid zones) in July 2013 with the participation of students, teachers and parents. The program included preliminary knowledge assessment, lectures, discussions and hands-on sessions. Butterfly host plants and books were donated to the chosen schools. The farmer training program was held at a farmer community center in the transition zone of the Bundala wildlife National park and MAB reserve. Members from a local farmer organization attended the program together with the regional agriculture development coordinator, university students, school teachers and some employees from the wildlife park. Discussions were held on the general importance of biodiversity and ecosystem functioning, introducing dung beetle friendly agricultural practices, adopting traditional agricultural methods to harvest benefits of ecosystem functioning. Coordinating assistance for the program was provided by a local organization through linking up the communities and obtaining permission from the local government

Another programme was held at the Sabaragamuwa University (Intermediate zone) for school children, undergraduates, teachers and local community. Instead of visiting several schools, students from all target schools were brought into one place. Lectures and discussions were held at the university "Green Park premises"; a wilderness area assigned for nature studies. Hands-on sessions included species identification, observation of the relationship between species and ecosystem services (for school children) and a nature walk through the forest. The session held at the Balangoda Anada Maithriya National School with the participation of students and teachers included lectures, discussions and evaluation and a tree planting campaign. The program was conducted in collaboration with the Sri Lanka Association for the Advancement of Science.

The program conducted in Jaffna), the northernmost area of Sri Lanka which has not received much educational assistance until recent due to the war. The area is also known for its healthy dung beetle populations and traditional farmers making use of the dung beetles to nourish their lands. The programs were held at the Thondamanaru field station and the field visits were conducted around the lagoon area.

The last program was conducted in two sessions, one at the Horton Plains National Park and the other at the Sinharaja forest reserve (Wet Zone) for undergraduate students with the participation of the wildlife and forest department staff. In addition to the regular program, these included field sampling and identification of dung beetles.

The outreach program collaborated with the Forest/Wildlife Departments, Officers of the Education and Agricultural Ministries, Local Government s, the Sri Lanka Association for the Advancement of Science and several universities, local organizations and framer associations. Scientists, researchers, officers and students from the above institutes participated as resource persons in addition to TERN staff. These links created through the outreach program have been immensely helpful.