

Promotion of outdoor environmental education based on the monitoring of local environment in Sabah, Malaysia

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Background

Grass-root conservation project between Malaysia and Japan

The rainforest with unique biodiversity around the lower Kinabatangan River in Sabah, Malaysia, has been lost rapidly with deforestation and spread of oil palm plantations in recent years. At the middle of this river, in the village of Batu Puteh, a community-based ecotourism cooperative KOPEL Bhd. is operating eco-tourism in the remaining forest to offer attractions such as wildlife watching cruise and reforestation programs. This award-winning cooperative is now a model for many local communities in Malaysia seeking for the way to vitalize their economy.

Rakuno Gakuen University, Japan, started a grass-root project 'Biodiversity Conservation through Community-based Rural Development around the Lower Kinabatangan River' from August 2012, with funding from Japan International Cooperation Agency (JICA). This project aims to establish environmental monitoring scheme in the community, build environmental database to share with stakeholders, and produce environment-friendly attractions for their tourism, by 2016.

Activities in the first two years

So far, we have started monitoring surveys on wildlife, water quality and the growth of the planted trees. At least 11 species of mammals and various birds have been recorded in the photos and videos from automatic camera trap. Water samples are taken regularly from the river, ponds, runoff from households as well as sewage from palm oil mills; the parameters include dissolved oxygen, chemical oxygen demand, ammonium ion and clarity. Three forest plots have been set up for monitoring the height and diameter change on all the trees in each plot.

At the same time, environmental education (EE) programs have been implemented in Batu Puteh village several times, to familiarize local children with nature around them. A training course on EE design were provided to eight staff members of a major role in EE. In November 2013, three delegates from KOPEL Bhd. visited Japan for three weeks to be exposed to various forms of environmental education. We have also been trying composting kitchen waste, and making soap out of used cooking oil.

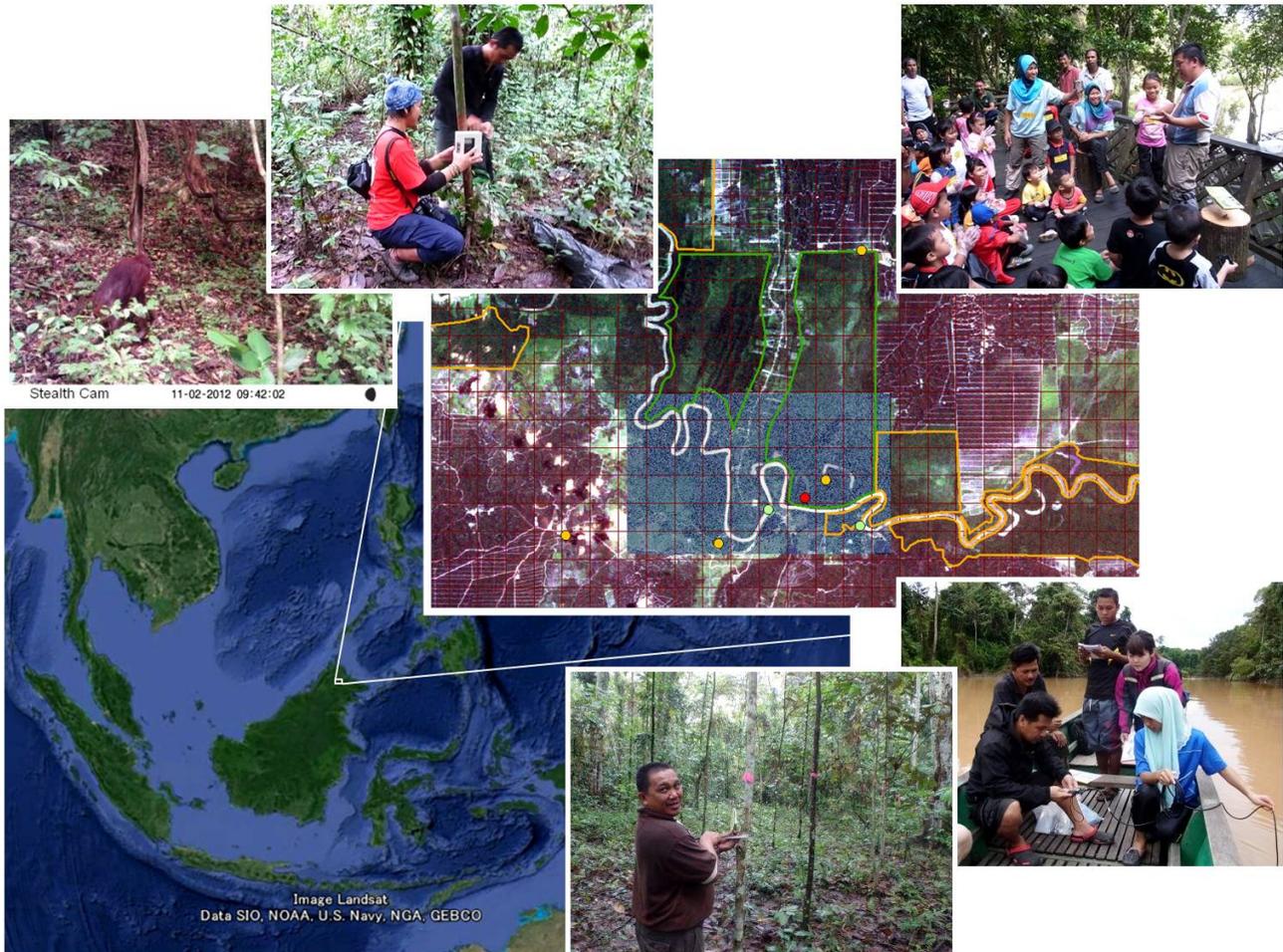


Fig.1 Monitoring and environmental education activities in Batu Puteh village, Sabah, Malaysia

Environmental education in Sabah, Malaysia

Initiative by the local government

The National Policy on the Environment (2002) emphasise the importance of education in protecting their natural resources and ensuring sustainable development of Malaysia. The Sabah Environmental Education Policy (2009) set out by the Ministry of Tourism, Culture and Environment Sabah, clearly states that the government agencies, NGOs and educational institutions should actively be involved in and/or implement environmental education. Collaboration among these organisations is encouraged through Sabah Environmental Education Network (SEEN).

The most popular place for environmental education in Sabah is Rainforest Discovery Centre (RDC) under the Sabah Forestry Department. They provide education programs for the local children and student groups from across Sabah, schoolteachers, as well as tourists from overseas. Their programs put special emphasis on tropical rainforest and bird watching. By providing training

courses for schoolteachers, they also aim to spread environmental education to schools and other educational institutions in Sabah.

Environmental education at schools

The schools and teachers, however, have little experience yet in practicing environmental education. It is difficult and time-consuming for the teachers to improvise classes about nature and environment, and effectively raise the students' awareness. In the yearly outdoor camping programs, which KOPEL Bhd. accepts occasionally, schools tend to give conventional programs such as athletics or cooking.

It would be easier and quicker if we could provide a ready-made environmental education package to schools. Rather than competing with RDC, we have started to lean on and collaborate with RDC. Eventually we will add diversity in environmental education offered in Sabah, by focusing on different aspect of the environment, such as wildlife and water quality. Schools will have more options to choose from, thus students should have chances to go through environmental education.

Another initiative for environmental education comes from our donor: JICA. Apart from being our donor agency, they have been operating the Project on Sustainable Development for Biodiversity and Ecosystems Conservation in Sabah (SDBEC) and its preceding project for more than 10 years. One of their activities, called River Environmental Education Programme (REEP), targets school children to educate them the importance of water catchment and its conservation. As JICA works closely with the state government of Sabah, we have channel to various sectors of the government. In 2014, we are planning to organize a training workshop on biodiversity conservation together with JICA, Natural Resource Office (NRO) and Sabah Wildlife Department.

Implications of our project

Impact on the community

Our next step is to create an effective visual aid. We are now making an online, map-oriented database on which KOPEL staff should display their monitoring outcomes. A visual map can help them share their findings, and understand the current situation in their own locality. It will also become a powerful tool for EE programs, as well as for planning conservation activities. By making it open to the public, the map itself can attract tourists. 'Map with stories' as such has a high potential in multiple aspects.

KOPEL Bhd. is now under transition from a pure tourism attraction to an education and information centre. If visitors to Batu Puteh village increase, the extra income would raise awareness in the community on the importance of the surrounding environment and its conservation. It can lead to the sense of pride and attachment to their own community. In turn, the people would be more motivated to conserve the nature; hence the positive loop appears.

Challenges and opportunities

The largest concern we are facing is the funding. At the moment, schools seem reluctant to allocate their budget to environmental education. We might appeal more to the government agencies and private sectors to invest for the better future of Sabah. Our mission is not only to sustain KOPEL Bhd.; it is to create a flow of money from the society to environmental education.

This project can be an example of transition from pure tourism to educational tourism. Wherever the place may be, the primary concern would be funding. We can try different patterns of collaboration with local agencies, and share the experience with similar initiatives in the world.

Reference

Malaysia. Ministry of Tourism, Culture and Environment Sabah. (2009) Sabah Environmental Education Policy. [online]. Malaysia: Ministry of Tourism, Culture and Environment Sabah. Available from <http://www.sabah.gov.my/seen/mainpages/JICA%20Sabah%20Environmental%20Education%20Policy.pdf>