

LOCAL COMMUNITY PARTICIPATION IN THE MANAGEMENT OF LANJAK ENTIMAU WILDLIFE SANCTUARY (LEWS)

Engkamat Lading

Sarawak Forestry Corporation, Kuching, Sarawak

Abstract

Lanjak Entimau Wildlife Sanctuary (LEWS) is located in the south-western part of Sarawak at the latitudes of 1°19' N to 1°51'N and longitudes of 111°53'E to 112°28'E. It straddles the administrative divisions of Sri Aman, Sarikei, Sibuan and Kapit and is drained by tributaries of Batang Lupar and Batang Rajang. The area includes patches of rugged terrains and hills, and Bukit Lanjak forms the highest peak which stands at the height of 1,285 m a.s.l. Due to large presence of orangutans and hornbills, the area, which formerly was constituted as a Protected Forest was reconstituted as a Wildlife Sanctuary in February 1983, covering 193,039 hectares of relatively undisturbed primary forest where the local communities were depending on for their livelihood. Thirty-five Iban longhouses, out of a total of 102 houses located along Sg. Engkari, Katibas, Ngemah, Kanowit and Mujok in the surrounding areas were granted rights to collect forest produce in three designated areas within the Sanctuary. Elsewhere within the Sanctuary are totally protected and are put aside as conservation areas. However regardless of its totally protected status illegal encroachments for livelihood into these areas, particularly by local communities, were still occurring. Unfortunately continuous enforcement of laws against these people did not seem to be the final solution to the problem thus more practical measures have to be put in place to reduce dependencies of local communities on the Sanctuary. For this very reason it was decided that local communities themselves have to take part in the management of the Sanctuary. This includes employing them to work at the Ranger stations of the Sanctuary and involving them in boundary clearing. With the collaboration of ITTO the Forest Department has successfully implemented a Community Development project in the buffer zone, actively involving local communities in various activities such as rearing of indigenous fish, cultivating of indigenous plants and training in some kinds of basic technical knowledge in agro-forestry, fish culture, park and wildlife management. The Forest Department has also appointed community leaders in the area as Honorary Wildlife Rangers and Special Wildlife Committee members. The Rangers and the committee members are to be involved in discussions, enforcement and decisions pertaining to the management of the Wildlife Sanctuary. With this kind of active participation of local people the management of the sanctuary seems to be more efficient and acceptable by the communities in the surrounding area.

1. INTRODUCTION

The Sanctuary is located in the south-western part of Sarawak at latitudes 1°19' N to 1°51'N and longitudes 111°53'E to 112°28'E. LEWS straddles the administrative divisions of Sri Aman, Sarikei, Sibuan and Kapit and is drained by the tributaries of Batang Lupar and Batang Rajang. The terrain is deeply dissected, rugged and hilly. The mountain ranges are marked by a series of sharp ridges with shallow soils. The highest peak of Bukit Lanjak is 1,285 m a.s.l.

Lanjak Entimau was first constituted as Protected Forest in October 1940 (southern part) and March 1941 (northern part) with a total area of 193,039 ha. Two excisions in 1948 and 1953 reduced the size to the present 168,758 ha. For the purpose of protecting all animals in particular the orangutan and hornbills living in the area, Lanjak Entimau Protected Forest was constituted as Wildlife Sanctuary with effect from 2nd. February 1983. Except for patches of abandoned secondary forest, the Sanctuary is a relatively undisturbed primary forest. Including the adjacent areas proposed for extension the size of LEWS will increase to 191,568 ha.

Many outstanding characteristics of Lanjak Entimau Wildlife Sanctuary make it an ideal site for *in situ* nature conservation and study on the sustainable utilization of the forest resources. Covering an area of 168,758 ha it is the largest totally protected area in Sarawak. A wide range of habitats and forest types support a rich diversity of flora and fauna. For generations the local communities have been dependent on the plants and animals in the surrounding areas of the Sanctuary to provide them with food such as meat, fish, vegetables and fruits, building materials, medicine, fuel and other non-timber products. The local communities are an important component of the Sanctuary's management. LEWS is contiguous with the Betung Kerihun National Park in the Kalimantan, Indonesia, forming the largest trans-boundary nature reserve in the wet tropics for inter-regional collaboration. It also shares a common boundary with Batang Ai National Park in the south. This national park is home to about 400 individuals of orangutan.

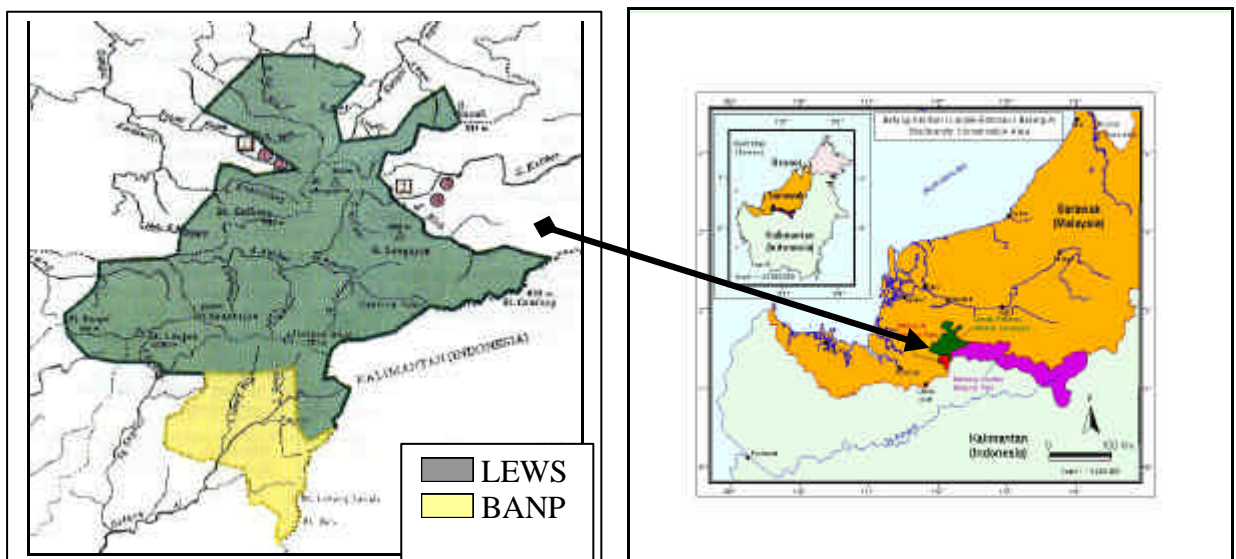


Fig. 1. Locality Map of Lanjak Entimau Wildlife Sanctuary (LEWS).

2. THE IBAN COMMUNITY IN THE BUFFER ZONE

The story of the Iban in Sarawak began with their ancestors' first migration over the low hill from the Kapuas river system in Kalimantan, Indonesia. The Kapuas migration probably represented an expansionist tendency in search for fresh agricultural land, a general over spill into the neighboring river system (Sidu, 1996). The first group of the migrants probably arrived at the Undup and Batang Ai, tributaries of Lupar (Fig.1) in the early or mid-sixteen century. Settlement extended along the other rivers in the area such as Sekrang, Saribas and Katibas making the region the home of the energetic and warlike Iban Dayaks. The community of Ulu Katibas claimed that their ancestors migrated to Katibas about 300 years ago.

There were a total of 102 Iban longhouses with an estimated population of 12,400 people living in the areas surrounding the Sanctuary (Sidu, 1996). These longhouses are found along Sungai Engkari, Sungai Katibas, Sungai Ngemah, Ulu Sungai Kanowit and Sungai Mujok. When the Sanctuary was established in 1983, 35 longhouses were granted rights to collect forest produce in three designated areas within the Sanctuary. The activities have caused negative impact to the Sanctuary thus strategies to reduce their dependencies on the forest have to be put in place. Among those strategies are like efforts to get local people involve in integrated agro-forestry projects, domestication and rearing of wild game species, fresh water fish rearing, cultivation of indigenous fruit species and cottage industries in the buffer zone. The local communities view the Project very positively. They value the Sanctuary, particularly its rich natural resources, clean water and fresh air. They appreciate the great potential benefits that can be derived through a joint effort with the Government to sustain-ably manage the natural resources. Hence to make this collaboration a success establishment of Honorary Wildlife Rangers and Special Wildlife Committee among local communities and other relevant stakeholders could possibly strengthen the management of the Sanctuary.

3. HONORARY WILD LIFE RANGERS

To help protect the Sanctuary, many of the local people, particularly among heads of communities, have been appointed Honorary Wildlife Rangers by the Government. A total of 4,500 community leaders throughout Sarawak, inclusive of those in areas surrounding LEWS, have been appointed as Honorary Rangers since 1996. This is one of the local communities' contributions in the management of the Sanctuary. Their main duties are to act as 'ears and eyes' of the government particularly on possible infringement of the Wildlife Protection Ordinance 1998 inside the Sanctuary. It is therefore their duties and responsibilities to report those illegal activities to the wildlife authorities or police so that appropriate action could be taken against the culprits. They are also responsible to educate their own communities on the Wildlife Protection Ordinance 1998 and other wildlife issues as requested by the Controller of Wildlife and other wildlife staff. Apart from the above they are also required to give assistance and advice to any wild life staff conducting field programs in their areas, particularly on local wildlife issues, problems and any other relevant background information needed.

Another management programs involving local community's participation is boundary cleaning and monitoring. Regular surveys of the Sanctuary's boundary are amongst some of the principal features of the Sanctuary's protection programs. The patrol team should involve a number of people from local community and to be headed by staff of the Sarawak Forestry. This is important to enhance local participation and instill a sense of joint responsibility.

Currently a total of 32 community leaders from various longhouses along Sungai Katibas have been appointed as the Honorary Wildlife Rangers for the area. The appointment and the reappointment of the Honorary Wildlife Ranger's program have been extended to other areas statewide.

4. SPECIAL WILDLIFE COMMITTEE

In addition to the Honorary Wild Life Rangers a Special Wild Life Committee, consisting of 12 members, has also been established for the Sanctuary. These members comprised of a Warden, Wildlife Rangers, Honorary Wildlife Rangers, ITTO consultants and relevant persons from the local community. At the moment it consists of 3 staff from the Forests Department, 2 Sarawak Administrative Officers from the nearby Districts, 1 from timber concession area adjacent to the Sanctuary and 6 were appointed from local communities living around the Sanctuary. Each appointment of the committee is valid for a period of 3 years. The main duty of this committee, apart from educating and reporting infringement of the Wildlife Protection Ordinance 1998, is to assist the Controller of Wild Life in the supervision, control and the management of the Sanctuary where they are to jointly involve with officials of the management authority in formulating and implementing management strategies for the Sanctuary. Implementation of community-based development project in the buffer zone like the construction of fish pond, introduction of fish culture in concrete tanks and planting of indigenous fruit trees are some of the examples where members of this committee are required, particularly in supervising the program. The committee is required to have a meeting once in every four to six month time.

5. COMMUNITY DEVELOPMENT RELATED ACTIVITIES

An important component of the Project is the integration of the use of resources and conservation in the buffer zone outside the Sanctuary. The local Iban communities are encouraged to develop various projects on plant and animal species of economic potential to supplement their income and at the same time reducing their dependencies on the resources of the sanctuary. Cultivation of indigenous crops and fish rearing were among the projects that have been implemented through direct local participation in the areas surrounding the Sanctuary. The detail of the projects are as described below:

5.1. Cultivation of Indigenous Crop

Farmers from four longhouses in Ulu Katibas and Ulu Mujok, which are nearest to the Sanctuary, were selected to participate in the cultivation of indigenous crops. These crops were selected based on their potential for domestication and commercialization and in consensus with the participants. The principal crops are 'dabai' (*Canarium odontophyllum* Miq.), 'isau' (*Dimocarpus longan* var. *malesianus* Lour), and 'petai' (*Parkia speciosa* Hassk). Two species of rattan were also planted: 'sega' (*Calamus caesius* Blume) and 'manau' (*Calamus manan* Miq.). In addition, the farmers were provided with commercial fruit species some of which are non-seasonal in an effort to have an integrated orchard to ensure fruit supply on a daily basis. With active participation in these activities local people seemed to spend less time in the forests of the Sanctuary to look for wild fruits and other jungle produce. They were also taught to monitor and record the growth performance of the plants and to submit it to representative of the Forests Department or ITTO.

5.2. Indigenous Fish Rearing

A pilot project on fish rearing was implemented for three longhouses in Ulu Katibas and Ulu Mujok. Two valley ponds and a concrete tank for fish rearing were constructed by the local communities on 'gotong-royong' basis with the building materials supplied by the Forests Department or by ITTO office. The participants were encouraged to rear the high-value indigenous fish such as 'empurau' (*Tor tambroides*), 'tengadak' (*Barbodes schwanenfeldii*) and 'semah' (*Tor tambra*) for own consumption and for sale to generate income. Apart from these two areas there were demands from local communities on other side of the Sanctuary such as Ngemah on the Kanowit side. The success of the ground implementation of the above two projects has been widely assisted by members of the Special Wildlife Committee from the areas.

5.3. Training

With the cooperation and coordination from the Honorary Wildlife Rangers and the Special Wildlife Committee members various training programs for local communities have been well implemented in the buffer zone of the Sanctuary, particularly in Ulu Mujok and Ulu Katibas. This include technical training in agro-forestry and fish culture where Education and Awareness program on wildlife conservation were sometimes slotted in. This was usually in form of talks by staff of the Education and Interpretation Unit of the Forests Department. The participants were also sponsored to attend study tour to various places within the State as well as in Kalimantan, Indonesia, with the objectives to:

- Introduce them to the concept and management of national parks and wildlife sanctuaries, ecotourism, fish rearing, cultivation of fruit trees and non-timber products, and agro-forestry projects run by the respective Governments.
- Increase their awareness that such activities can generate additional cash income, and
- Introduce them to the facilities available for training and human resource development.
- Increase their awareness on the importance of wildlife to the ecosystem.

6. CENTRE OF EXCELLENCE FOR PLANT RESEARCH

Under the 9th. Malaysia Plan the Sarawak Government has proposed to developed the existing Biological Centre at Nanga Bloh Ranger Station, Ulu Katibas as a Centre of Excellence for Plant Research for the State. With the availability of the facilities local and foreign scientists would be encouraged to conduct more field research in plants within the Sanctuary. This program would definitely involve more participation of local communities either as research assistants, porters or guides to the scientists. This is an employment opportunity for local people to work in the Sanctuary, in addition to the existing employment being provided by the Forests Department, ITTO and the Sarawak Forestry to local communities to work in the Ranger Station. It is expected that local communities would give closer cooperation and support to the management authority of the Sanctuary once they realized the importance of the conservation area to themselves and to their generations to come. The above mentioned activities are in line with the objectives of the Management Plan for the Sanctuary that strongly recommends the enhancement of research activities and protection of the area, conservation of biodiversity, active involvement/employment and support of local communities, regular consultative meetings between the management authority and the local communities through their representatives in the existing Special Wildlife Committee and Honorary Wildlife Rangers and development of profitable ventures in the buffer zone. To benefit from these programs local people need to move away from their traditional livelihood as shifting cultivators and forest gatherers to devote more time and effort to the new opportunities created for them.

7. PROBLEMS

One of the problems that may arise and need to be amicably addressed in the implementation of the programs is the fact that local communities might become suspicious over the government policies and practices in conserving the area traditionally used by them for their livelihood. One possible way to get rid of this suspicious attitude of the local people is by having regular consultation with local communities, particularly through the Special Wildlife Committee and the Honorary Wildlife Rangers, to seek their support and involvement.

Illegal encroachment and poaching inside the Sanctuary is serious problem that need special attention from the management agency and support from local communities are really needed to sort it out. During a recent workshop in September 2003, local community representatives unanimously expressed their desire to help protect the TPA from illegal encroachment and poaching. They even made a suggestion to form local co-management units to be headed by the Park/Wildlife Wardens and Rangers. To meet this expectation, greater management presence on the ground is desirable. With this it looks like that local communities have begun to understand and accept the concept of conservation management, and are showing increasing interest and enthusiasm in active participation. It is crucial that this newfound interest and enthusiasm are maintained. The proposed final phase (Phase IV) of the ITTO-Forests Department Project should help to strengthen this proposed co-management initiatives and guide the local communities towards adopting a new and more positive approach in Sustainable Forests Management (SFM).

Another problem that ones may encounter is in the field of research. The developments of local expertise are usually consistently lags behind, partly because of focus on projects proposed primarily by international researchers. Emphasis on direct local participation in research and educational programs should help to address parts of the problems, particularly if local students are given encouragement and incentives to work in the Sanctuary.

8. RECOMMENDATIONS.

Among some of the recommendation put forward to improve management of the LEWS are;

- (i) Continue to encourage and guide the local communities to enhance their technical and entrepreneurial skills in organized economic activities, e.g. rearing of high value fish of indigenous species.
- (ii) Where possible engage local graduates and school leavers in co-management of the Sanctuary. For this purpose more Ranger Stations around the Sanctuary have to be put in place as centers for these new 'recruits' to co-manage the area. Better management result will come with effective community leadership and interest and cooperation among the participants.
- (iii) Make full use of the Special Wildlife Committee to improve management presence on the ground to facilitate enforcement, planning, implementation and monitoring.

9.0. Conclusion

It is a wish of all of us to see that Lanjak Entimau Wildlife Sanctuary be properly managed, and to achieve this continuous cooperation from and participation of local communities in the surrounding area is badly required.

References:

- Abdullah S.I. (2004). Development of Lanjak Entimau Wildlife Sanctuary as a Totally Protected Area. Fish Resources Assessment Study of Lanjak Entimau Wildlife Sanctuary and Batang Ai National Park. ITTO Project PD 16/99 Rev. 2(F). Phase III. International Tropical Timber Organization and Forest Department, Sarawak, Malaysia. March 2004.
- Development of Lanjak Entimau Wildlife Sanctuary as a Totally Protected Area – Project Completion Report. ITTO Project PD 16/99 Rev. 2(F). Phase III. International Tropical Timber Organization and Forest Department, Sarawak, Malaysia. March 2004.
- Gurmaya, J.K. and Sundai S. (2002). Development of Lanjak Entimau Wildlife Sanctuary As a Totally Protected Area, Phase III. A Study of Habitat Conditions, Populations, and Distribution of Orangutan in Lanjak Entimau Wildlife Sanctuary and Batang Ai National Park, Sarawak, Malaysia. ITTO Project PD 16/99 Rev. 2(F). International Tropical Timber Organization and Forest Department, Sarawak, Malaysia.
- ITTO Project PD 106/90 Rev. 1 (F). Wildlife Sanctuary as a Totally Protected Area, Phase I: The Management Plan.
- Lanjak Entimau Wildlife Sanctuary, Sarawak, Malaysia. A conservation Project supported by International Tropical Timber Organisation (ITTO). Sarawak Forest Department and International Tropical Timber Organization (ITTO).
- Sidu, J. (1996). The Socio-economic conditions of communities living at the periphery of Lanjak Entimau Wildlife Sanctuary. Proceedings of the Seminar. The Development and Management of the Lanjak Entimau Biodiversity Conservation Area. Kuching, Sarawak.

Appendix:



Pic. 1a

Pic. 1b

Pic. 1c

Pic. 1a – c: Picture 1a & 1b show the release of endogenous fish fries by local communities into the cages in the valley ponds in areas surrounding Lanjak Entimau Wildlife Sanctuary. Picture 1c shows fish cages near Batang Ai National Park, in the south of the Sanctuary.



2a



2b

Pic. 2a – b: Some of the endogenous fish species being reared in the valley and concrete ponds of local communities in Ulu Katibas and Mujok.



3a

3b

3c

Pic. 3a-c: Pictures showing cultivation of indigenous plants by local communities in the buffer zone of the Sanctuary. Pic. 3a was taken from BANP.



4a

4b

Pic. 4 a – b: The picture shows one of the training courses and meetings done with local communities in the buffer zone, include that of Batang Ai National Park (BANP) in the south of the Sanctuary.



Pic. 5. One of the fields in research (fish inventory) where local communities of the area have been participating actively.



6a



6b



6c



6d

Pic. 6a. Honorary Wildlife Rangers for Julau, Daro and Matu Districts.

Pic. 6b. Honorary Wildlife Rangers for Kanowit District.

Pic. 6c. Honorary Wildlife Rangers for Song District.

Pic. 6d. Honorary Wildlife Rangers for Kapit District.



Pic. 7. The Minister, the Resident, the community leader deliver their speeches during the appointment of the Honorary Rangers while the picture at the extreme right shows officials from the Forests Department giving some briefings to the Honorable Minister.