

ECOTOURISM IN SABAH: A CASE STUDY OF BATU PUNGGUL RESORT

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INTRODUCTION

Ecotourism has been gaining prominence in recent years. Although this type of tourism is not new and has, in fact, been around since the nineteenth century, it has received substantial impetus from, among others, the increasing awareness of environmental issues, in particular the dramatic loss of biodiversity and its related belief that ecotourism will build support for conservation (Marsh, 1995; Ceballos-Lascuráin, 1996). Consequently, the promotion of ecotourism is intimately linked to the conservation of biodiversity.

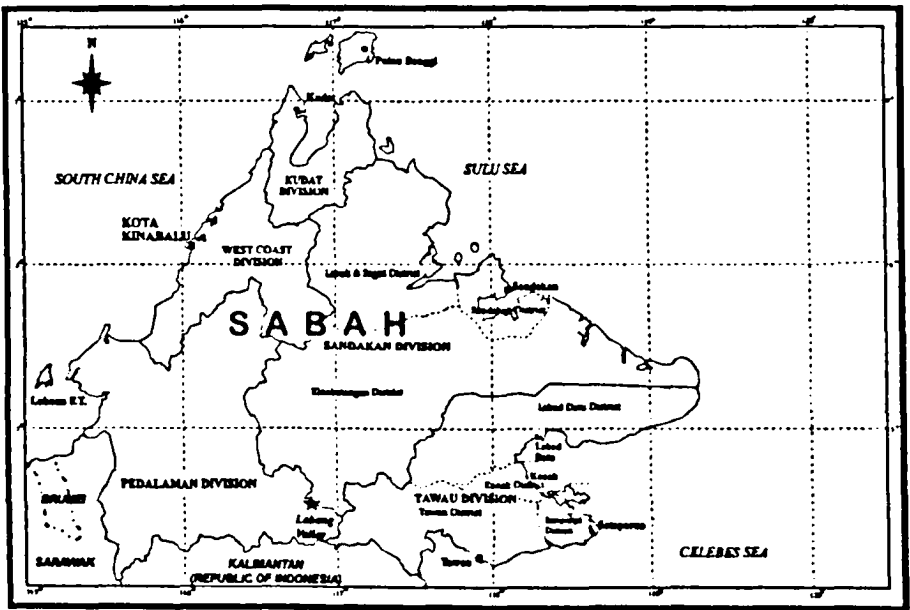
However, areas identified for biodiversity conservation are usually inhabited by rural communities, and respectively utilised by them for subsistence needs. Conservation has, therefore, direct consequences on the welfare of the communities relying on forest land and forest products in these areas. The claims of these people on land and forest products are an integral part of their respective household economies. Therefore, the viability of protected areas is threatened by them.

The current discussion on how to take into account the resident population is based on the recognition of the costs for the affected population resulting from the establishment of nature reserves, and of preventing thereby access (or at least 'legal'

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access) to resources, and of the lack of benefits accruing to the rural communities. Therefore, a fairer approach towards the distribution of costs and benefits is suggested.¹ In particular, the sharing of benefits from tourism with the local communities is seen as a possible solution.² This approach has been taken in the case of Batu Punggul, a tourist destination in the Labang Valley, Nabawan district, Sabah (see Map 1).

Map 1: Location of Labang Valley



the Rural Development Corporation (Koperasi Pembangunan Desa or KPD). The Batu Punggul Resort is located along the Sapulut River in the Labang Valley. In the vicinity of the resort are two villages, Kampung (Kg.) Tataluan and Kg. Sandukon, populated by the Muruts, one of the major ethnic groups in Sabah. The participation of villagers from the two and other villages along the river is promoted by the KPD as a means for village communities to benefit directly from tourism. It is also hoped by the KPD that the benefits from local tourism will lead to an active interest among villagers to protect the conservation area and ensure its sustainability as a basis for nature-based local tourism. As such the conceptual approach taken by KPD is in line with the notion of ecotourism. This article looks into the development and current operation of Batu Punggul Resort and its impact on the local communities as well as on biodiversity conservation.³

TOURISM IN BATU PUNGGUL

Development of Batu Punggul Resort

The development of Batu Punggul as a tourist destination is closely related to the initiative of Mr. Lamtir, the current warden of Batu Punggul Resort. Starting in the early 1970s, Mr. Lamtir took tourists to Batu Punggul and the nearby villages, in particular to Kg. Tataluan. In the early 1980s, he had his first simple hut built on the current location of Batu Punggul Resort for the accommodation of tourists. At the same time a company started logging in the area of Labang valley. To protect the extremely scenic area around Batu Punggul from being logged and thereby secure a future sustainable tourist industry based on natural attractions he started promoting Batu Punggul as a protected area for tourism. In 1985, an area of 1,500 hectares was gazetted as a protected area (*Hutan Simpan Kelas I*).

The tourism industry under the auspices of Mr. Lamtir expanded in Batu Punggul but villagers in the area became increasingly

discontented with their lack of participation in the growing tourism at Batu Punggul. This coincided with an interest of KPD to develop the Murut communities in the interior district of Pensiangan. In 1990, KPD started an agricultural development project (based on 'contract farming') with an office in Sapulut town and a branch in Kg. Labang. The KPD offered to integrate community-based tourism in their development efforts. To allow for the establishment of a resort in the protected area under the management of the KPD (including a traditional longhouse, resthouses, a camping site and nature trails), the status of the area was changed from *Hutan Simpan Kelas I* to *Taman Rekreasi KPD* in 1991. Mr. Lamtir became the warden of the resort.

When the KPD tourism project started in July 1990, locals from the surrounding villages camped at Batu Punggul and worked together to build the necessary infrastructures of the resort. Local materials were used for the construction of the buildings. Currently the resort comprises a four-room rest house, a two-room chalet with attached bathroom, a traditional long house with seven rooms (which has become dilapidated and cannot be used anymore since 1995), one canteen (which ceased to operate in 1997) and two staff quarters with two and five rooms respectively. In addition, there is an office building, which includes a reception counter. The Sabah Ministry of Environment and Tourism also contributed to the project by providing funds for the construction of a chalet and an observation tower.

A generator provides electricity for the resort. The water is collected in a nearby catchment area and channeled to the resort through pipes. Rubbish is disposed of by burying it in a hole at a selected area.

Apart from planning and funding the physical infrastructure of the resort, KPD also trained the prospective workers at the resort in the necessary aspects of tourism at Kundasang for the period of three months. Training was also provided to villagers who

agreed to provide boat transportation for tourists and at the same time provide guidance to tourists on their walks to Batu Punggul and on the surrounding trails. The training courses for these boatmen-cum-guide included basic skills in navigation, hospitality and English.

Tourist Arrivals

Batu Punggul Resort is visited by both local and foreign tourists. Most of the foreign tourists come to the resort with a tour operator. Although some local tourists also come through tour operators most of them are Free Independent Travelers (FIT) and independent organized groups. Many local tourists do day trips. Local tourists who stay overnight usually spend only one night at the resort. Most of the foreign tourists stay at Batu Punggul Resort for two nights (tour operators offer a two-night package to Batu Punggul).

In the last years, there has been a constant decrease of local and foreign tourist arrivals to Batu Punggul. The arrival of foreign tourists to Batu Punggul, for example, has been decreasing from 459 in 1994 to 153 in 1997. The KPD pointed out that forest fires resulting in haze (in 1997) have mainly caused the decrease in the number of tourist arrivals.⁴ However, the downward trend of tourist arrivals has already started before the forest fires in 1997. Internal management problems, which are discussed in the following section, seem to be responsible for this trend.

Management Problems of Batu Punggul Resort

A major problem with the management of Batu Punggul Resort results from the centralised funding mechanism of KPD. Necessary funds to run the resort are often not made available by KPD or are considerably delayed. An example is the proposed reconstruction of the dilapidated longhouse which cannot be used anymore since 1995. According to the warden, KPD agreed to demolish the longhouse and to replace it with a new one. However, funds have not yet been made available. This has resulted in a reduction of accommodation capacity.

Running and maintaining the resort by the resort staff is also made difficult due to the centralised operation of KPD projects. An example is the monthly delivery of a fixed amount of fuel to the resort. The fuel is mainly used for boat transportation as well as for the chainsaw and the grass cutter used to maintain the area. According to the staff, the amount of fuel that they need to fulfil their tasks usually exceeds the amount of fuel supplied by KPD. Therefore, workers are forced to use their own fuel and claim for reimbursement. The lengthy reimbursement process makes the matter worse. They could also borrow fuel from KPD Labang Branch and return it upon receiving their own supply. In any case, the need to borrow fuel and/or to claim for a reimbursement imposes an unnecessary hassle and financial burden on the workers. This has led to dissatisfaction and resentment towards the inefficiency of KPD management among the staff.

The centralized cash flow system has also affected the available labor force at the resort. Initially, 18 people worked at the resort. In 1994, KPD headquarters retrenched 12 workers. The retrenchment resulted from cost cutting measures imposed by the KPD headquarters to all its operations in Sabah. Currently, there are only five workers working at the Resort⁵. The retrenchment has negatively affected the services of the resort. The laundry section, for example, ceased to operate. Therefore, the resort is now contracting out the laundry task to female villagers in Kg. Tataluan and Kg. Sandukon. Again, cash flow is a problem. The villagers are supposed to be paid by KPD after submitting their claims. However, the settlement of claims can take several months. From the villagers' point of view these delays render work for KPD very unattractive. This can be clearly seen in the case of housekeeping. The resort has tried contracting out also the housekeeping task to villagers but nobody was interested. Therefore, housekeeping is now fairly neglected.

VILLAGES IN THE LABANG VALLEY

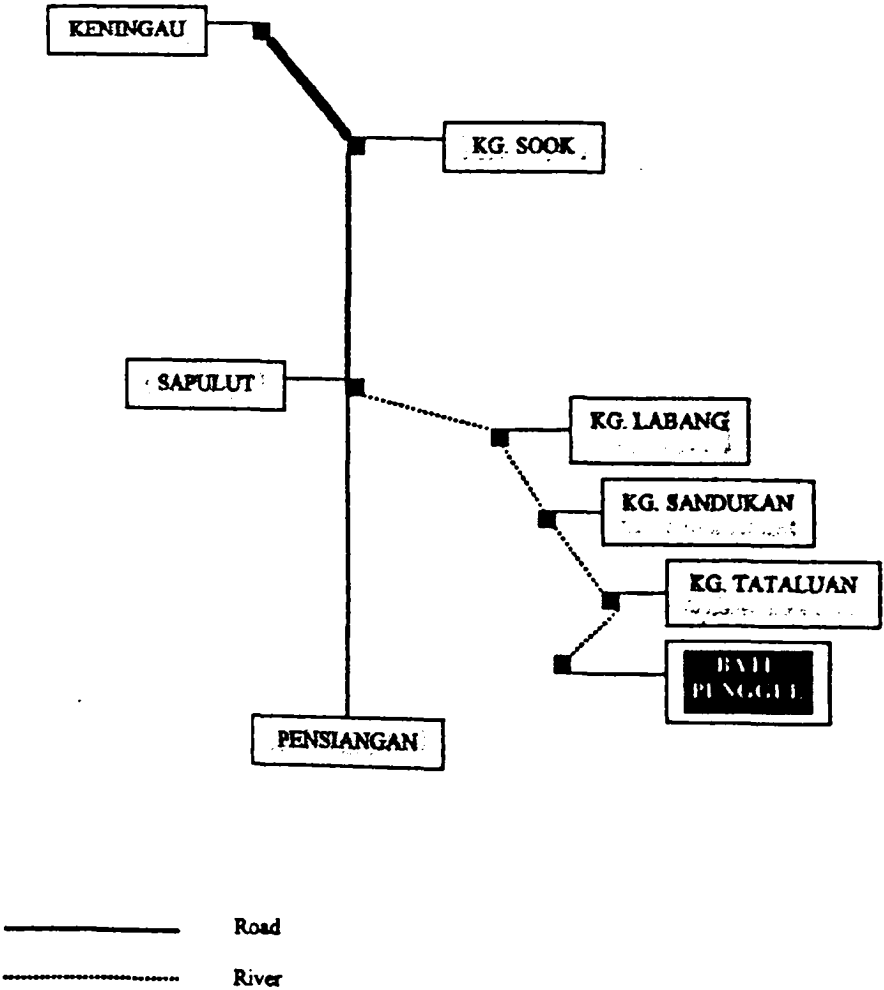
Brief Description

The Labang valley comprises 7 villages located along the Sapulut River including (see Map 2) Kg. Tataluan (169 families), Kg. Sandukon (70 Families), Kg. Kankamun (15 families), Kg. Samuran (8 families), Kg. Naturan (30 families), Kg. Lilingkor (78 families), and Kg. Labang (62 families).⁶ The villages closest to the conservation area surrounding Batu Punggul are Kg. Tataluan and Kg. Sandukon.

Kg. Tataluan is located about 2 kilometres to the west of Batu Punggul and Kg. Sandukon is 2 kilometres further down-river. The total village community of Kg. Tataluan comprises 169 families. However, a substantial number of villagers have migrated over the years and only about 60 families lived in the longhouse by 1997. The majority of these villagers also left to work in a nearby logging camp. Only 6 families of the Kg. Tataluan stayed behind in individual houses situated along the river next to their respective swidden fields. Kg. Sandukon consists of two longhouses with 10 (46 persons) and 12 rooms (53 persons) respectively. The villagers built both houses in 1995.

Kg. Tataluan is only accessible by boat, whereas Kg. Sandukon can also be reached by a four-wheel drive car via a logging road. Accessibility of the villages by boat is seriously impeded by low water level in the dry season and a trip from Batu Punggul to Sapulut town (pekan) can take as long as 6 hours (with a sufficiently high water level the trip takes only 2½ hours).

Map 2: Location of Batu Punggul Resort and Villages in the Labang Valley



Map 2. Location of Batu Punggul from Keningau and Pensiangan

(Map produced by Awangku Hassanal Bahar Pengiran Bagul)

Electricity in the villages is provided by generators in the evening hours. Water in Kg. Sandukon has to be fetched from the river. Kg. Tataluan is, like Batu Punggul Resort, connected with a pipe to a water source in the hills.

A school is available only in Kg. Labang. Currently, 134 pupils are enrolled. The attendance of children from the villages in Labang valley depends on whether boarding facilities with relatives or friends can be arranged in Kg. Labang. For further education children have to be sent either to Nabawan or to Keningau. Here too, boarding facilities are limited. The constraints of the educational system considerably limits the chances of young villagers in the job market.

Social Trends

There is a clear trend towards the individualisation of housing. Although the majority of villagers in the Labang valley still live in longhouses, more and more families are building their own houses, provided they have sufficient financial resources. According to informants the main reasons for this trend are the wish to avoid conflicts with co-residing families in a longhouse and the aspirations to be 'modern' (*maju*).⁷

Another trend is the substantial rate of out-migration. This is indicated in the gap between the total number of longhouse families stated by the JKKK (Jawatan Kuasa Kerja Kampung) and the actual number of resident people. In the view of an elderly informant young people prefer to live and work outside the village. According to him, they are afraid (*takut*) to be like the older generation, that is, to become farmers. However, limited opportunities for education in Labang valley and the district towns significantly restrict the possibility of villagers to be employed outside their villages. Consequently, a substantial number of youngsters continue to live in the villages.

Employment in the Local Tourism Industry

The local tourism industry initiated by Mr. Lamtir and developed by KPD currently provides three types of employment explained below.

(1) **Employment in the Batu Punggul Resort:** The KPD-managed resort in the protected area surrounding Batu Punggul currently employs five locals (two from Kg. Tataluan, two from Kg. Sandukon and one from Sapulut town). Formerly, 17 employees used to work in the resort but due to funding problems 12 have been laid off in 1994. Employees are paid on a daily basis. Except for the warden, the income ranges from about RM 300 to RM 500 per month.

(2) **Self-employment as occasional boatman-cum-guide for tourists:** In addition to employment in the resort, villagers benefit from tourism by providing boat and guide services to tourists (with own boat). Currently, 15 villagers are registered as boatmen with KPD. Three boatmen respectively are from Kg. Tataluan (two of them are inactive, they work presently in a logging camp) and Kg. Sandukon. Several of the registered boatmen are from villages outside of the Labang valley.

The boatmen are called upon by KPD on a rotational basis. On average, a registered villager works about three times per year as a boatman-cum-guide. The fees for the boat transport are fixed by KPD but paid directly to the boatmen⁸. Fees for boat services are as follows: Sapulut town - Batu Punggul: RM 200; Kg. Labang - Batu Punggul: RM 100. Costs incurred (petrol, oil, and assistant for navigation) amount to about 50% of the fee. In addition, they receive RM 10 per day for their services as a guide.

Nepotism in the recruitment of employees is not uncommon. For example, the three registered boatmen from Kg. Tataluan are two brothers and a cousin of a staff member in Batu Punggul Resort. A boatman from Kg. Sandukon is the son of a staff member in the KPD office in Kg. Labang. As mentioned before,

the work as a boatman-cum-guide does not conflict with any agricultural activity. The cultivation of crops leaves sufficient flexibility to accommodate the occasional extra-workdays in the tourist sector.

(3) Laundry services: Laundry services are contracted to women in nearby villages on a rotational basis. This became necessary after the retrenchment of staff at the resort in 1994. The remaining employees could not cope with the work load.

TRADITIONAL ECONOMIC ACTIVITIES

Agriculture

The household economy of the villagers is based on the subsistence production of hill rice, tapioca, maize, green vegetables, and sweet potatoes. In addition, villagers may grow yam, sugar cane, onions (aria), chilli and fruit trees (*banana*, coconut, *durian*, *mango*, lime, *langsar*, *tarap*, *melitung*). Some villagers also raise chickens.

The households cultivate between 1 and 4 acres of land, depending on the availability of labor in the household. Although the composition and size of the plot for each crop may differ from household to household and even from year to year, the total area under cultivation of each household for the subsistence crops rarely exceeds 4 acres. About 50% of the field is grown with hill rice. The other half of the field is cultivated with tapioca and some other crops.

Each family has access to land for which the State grants usufruct rights to individual applicants (Land Application or LA status). The land under cultivation is shifted every year to a different plot, which in some cases are widely dispersed. Rice is cultivated once a year. The cultivation starts with the clearing of land in June/July. After the debris has dried and is burned, the field is cleaned and the leftovers again burned. This usually takes place in September. In October the rice is planted.

Weeding is required about one month after planting. To protect the crops from pests the families stay in a hut next to the field until harvesting in January/February. Harvesting is done with a sickle and takes about one month. Threshing and husking of rice take place in March. The end of the rice cultivation cycle is celebrated with the harvest festival in April.

Another important subsistence crop is tapioca. The product of tapioca (*sagu*) supplements the consumption of rice. Tapioca is also used to make a very popular local alcoholic beverage (*tapai*) and cakes. Villagers plant tapioca along the edges of the rice field. To prevent competition for light between the fast-growing tapioca plants and the rice plants, tapioca planting is not done before the rice plants have reached a height of about ½ feet. Tapioca can be harvested after about 10 months.

Fishing and Hunting

Fishing is also done by villagers in the Sapulut river and its small tributaries by employing nets, traps and rods. In recent years villagers have experienced a decrease in the catch. They relate this to the increased number of people fishing in the river. Far more important than fishing is hunting. Hunting of wild boar, barking deer, mouse deer, longtailed monkeys, birds and snakes provides the main source of meat for villagers. As such it is not only a significant cultural activity for men but also a very important source of nutrition (protein). Hunting is mainly done with self-made spears and the use of trained dogs, at times for several consecutive days⁹. Only three villagers in the Labang valley have their own guns for which they need permits¹⁰. The meat of a game is shared among the families of a longhouse.

Hunting is done by villagers all year around at least one to two times per month. However, a particular good season is from September to October because of the fruiting of trees. Hunting has been seriously affected by logging, which has been carried out in the area since the early 1980s. All male informants complained about the decrease of game, in particular wild

boar¹¹, in the surrounding secondary forests. Nowadays, hunting takes places in a few specific areas. One of the hunting grounds is located in the protected area designated as "*Taman Rekreasi KPD*". It, therefore, conflicts with the management goal of the protected area, which excludes any interference in the area except for the purpose of tourism and research. All villagers are well aware of this conflicting situation.

In addition to hunting, mammals, birds and other wildlife are caught by employing several types of self-made traps. These traps are also set up, among other places, in the protected area. The forest, including the protected area, is also a source for a number of products gathered by villagers. The most important products include vegetables (e.g. *paku-pakis*), rattan (for containers, traps, ropes, etc.) and timber for fuel and boat making.

SOURCES OF INCOME

Agriculture

To earn cash income, villagers sell some surplus production, in particular vegetables and fruits, also tapioca and corn, in Kg. Labang (especially to teachers and KPD staff), in a nearby logging camp and sometimes even in Sapulut town. The estimated income earnings from the selling of surplus production are about RM 20 - RM 60 per month. Major constraints of selling more crops pointed out by villagers are the limited market in the area and the lack of access to markets in town (e.g. in Keningau).

In addition to subsistence production, the already mentioned agricultural project by the KPD based in Kg. Labang promotes the production of cash-crops since 1990 in order to improve the standard of living of farmers. In 1991, 71 villagers, including 9 female villagers registered with the KPD to participate in the

“contract farming” scheme¹². The cash crop promoted at that time was tapioca.

For the cultivation of cash crops villagers expanded the area under cultivation. Participants in the scheme cultivated 1 to 2 acres of tapioca in addition to their subsistence crops. But due to some problems with the project (e.g. low prices, delayed payment, erratic collections of harvest by KPD and difficulties in pest control) villagers discontinued the cultivation of tapioca and the KPD processing plant in Sapulut had to close down.

Currently, KPD is promoting the cultivation of maize and to a limited extent yam and ginger as alternatives. Just as in the case of tapioca, participating villagers grow about 1 to 2 acres of maize to be sold to KPD. It is cultivated from March to May. According to KPD staff villagers can earn as much as RM 600 - RM 700 per acre of corn. However, villagers from Kg. Sandukon reported an income of only RM 100 - RM 300 per acre, an amount which some considered too low for the effort.

Logging

Logging is a well-paid and accordingly an attractive employment opportunity for many villagers. In 1997, almost the whole population of Kg. Tataluan temporarily migrated to a nearby logging camp.

Others

A few families run small provision stores with a limited selection of food and beverages. Two stores are based in Kg. Labang and two in Kg. Sandukon. Many male villagers are skilled in making boats for their own use. However, boats are only occasionally built on order. Cash is in some cases also provided to older villagers by their children who have managed to find employment in town.¹³ Informants estimated that a household requires about RM 50 to RM 100 per month for necessary expenditures.

Seasonal Labour Requirements

The seasonal labor requirements for major agricultural activities are outlined in Table 1. The peak of labor requirements in the agricultural sector is from July to January. This partly coincides with the seasonal arrival of tourists, which peaks from March to July and in October/November. This might lead to overlaps and conflicting demands in particular for villagers who provide services as boatman-cum-guide. However, due to the flexibility of the labor demand in agriculture and the current level of tourist arrivals, a conflict has not occurred yet.

Table 1: Seasonal Labour Requirements For Major Agricultural Activities

Activity	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Hill rice	xxx harve sting	x thres hing	x husking				xxx clear ing.	x burni ng.	x burni ng.	xxx plant ing.	xx weedi ng.	xx weedi ng.
Tapioca								xxx harve sting			xx plant.	
Maize (KPD)			xxx plantin g		xx harv estin g	xx harv estin g						
Hunting	x	x	x	x	x	x	x	x	xx	xx	x	x

x, xx, xxx = low, moderate, high labor requirement

Note: The cultivation of tapioca and maize is very flexible and can actually be cultivated any time of the year.

Preferences of Income Sources

Villagers in the Labang valley are left with only few choices for income earnings in their villages or in the vicinity. Alternatives available to them include the selling of surplus subsistence

crops, the cultivation of cash-crops as contract-farmers for KPD, working in a nearby logging camp, working occasionally as a boatman-cum-guide for tourists, and being employed at the Batu Punggul Resort. Given these choices, young male villagers between the ages of 19 to 27 have been asked to rank their preferences (see Table 2).

Table 2: Preference ranking for income sources

Respondent	1	2	3	4	5	6	7	8	Sum
Age	21	19	22	21	19	27	25	21	(Rank)
Selling surplus	2	4	2	1	1	2	1	2	15 (1)
Contract-farming	4	1	1	3	3	3	3	3	21 (2)
Boatmen/guide	1	2	5	5	2	1	2	4	22 (3)
Logging	3	5	4	2	5	4	4	1	28 (4)
Batu Punggul	5	3	3	4	4	5	5	5	34 (5)

Table 2 shows that young villagers prefer agricultural activities (cash-crop production). It is considered a good and reliable source of income. The opportunities provided in the local tourist sector are either considered too difficult to realize (requires own boat with outboard motor) and risky (maintenance costs) or not very attractive (low income, a lot of work, uncertain future at Batu Punggul Resort). This is clearly expressed in the comments made by respondents to each of the opportunities:

Selling surplus (vegetables, fruits): With high production, selling of surplus crops is a good source of income. However, vegetable growing is seasonal (more vegetables in the rainy season) and there are currently only limited marketing opportunities.

Contract-farming for KPD: The opinions on this source of income are divided. Some think that contract-farming can provide good income earnings when there is a good harvest (depending on weather) and provides income security. Other respondents pointed out that contract-

farming incurs high expenses because of the need to buy inputs (in particular pesticides). The remaining income earnings are considered too low for the efforts by this group of respondents.

Boatman-cum-guide for tourists: This in general is considered a good source of income provided there are many tourists. However, it requires a high investment in a boat and an outboard motor. Furthermore, the maintenance costs can be high. As such, it is seen as a rather risky economic activity.

Employment at Batu Punggul Resort: The income offered at the resort is considered low. According to the respondents, it is just enough to cover expenditures. Moreover, the employment is uncertain, because the work contract might not be renewed (Note: 12 workers have been retrenched).

Logging: The income earnings from logging are considered very high. However, the job is dangerous and is only temporary.

Others: Apart from the income sources used in the preference ranking exercise (see above), some young villagers mentioned other sources of income (mostly as their second choice after growing and selling of vegetables). These included being a teacher (easy job with high salary but depends on qualification and it has no long term prospects because pension has to be supplemented with agricultural production), working in Keningau (easy job with high salary), and working as a mechanic (high income earnings but requires experience).

BIODIVERSITY CONSERVATION

Protected Area Management

It is recognized by KPD that the sustainability of its nature tourism project depends on the conservation of its main attraction: the pristine tropical forest and its biodiversity as well as the scenic beauty along the Sapulut river, which is enhanced by the limestone outcrop Batu Punggul. At the same time, KPD promotes local participation to bring about direct benefits from tourism in the protected area to the local population (cf. KPD, no date). As such the approach propagated by KPD for the development of Batu Punggul is in line with the concept of 'ecotourism' (Marsh, 1995; Ceballos-Lascuráin 1996).

In order to protect it the area has been gazetted as a *Hutan Simpan Kelas I* in 1985. As this status not only strictly prohibits hunting, fishing and indiscriminate forest clearing but also any tourist activities in the protected area, the status has been changed from *Hutan Simpan Kelas I* to *Taman Rekreasi KPD* (L.A. 93 150 373, Batu Punggul) in 1991. This status allows the use of the area for the purpose of tourism including the construction of chalets. The KPD has been entrusted with the task to develop and manage the tourist industry in the protected area.

The task of protecting the designated area from encroachment and poaching remains with the Sabah Forest Department. As a first step towards the management of the protected area the Sabah Forestry Department had demarcated¹⁴ the area and conducted a forest inventory as a foundation for future research¹⁵ (KPD, no date). This took place after the protected area was converted to *Taman Rekreasi KPD*. However, the Sabah Forest Department has neither proceeded to monitor the flora and fauna in the area nor did it enforce the regulations. There are no officers at Batu Punggul.¹⁶ Consequently, breaches of regulations (in particular hunting) does occur frequently as

the area is one of the few remaining hunting grounds for the local villagers.

An important function of ecotourism in the context of biodiversity conservation is its contribution to the provision of funds to the management of the protected area. In Batu Punggul this is not yet the case. The establishment of a fund-raising mechanism (in the form of entrance fees) is therefore urgently required. Ecotourism is also supposed to raise the environmental awareness of tourists/visitors. Batu Punggul Resort is also not yet prepared for this function. A nature interpretation center does not yet exist. Well-designed nature trails do exist but they are poorly maintained and currently not equipped with materials for nature interpretation.¹⁷ In addition, the limited ability of the staff at the resort to speak English limits communication with foreign tourists. Therefore, the interpretation of nature for tourists depends wholly on the skills and qualifications of the tour guides of the tour operators¹⁸. In other words, the management of the protected area is currently very weak.

View of Villagers

Villagers are well aware of the existence of the protected area and its regulation for the purpose of conservation and tourism. Nevertheless, they continue to hunt wildlife and to collect forest resources (e.g. trees, bark, rattan) in the area. However, all informants approved of the fact that the area has been saved from being logged. In their view the value of the protected area is not so much the conservation of biodiversity, but - apart from bringing tourists to the area - the protection of an habitat with valuable forest and wildlife resources to be used for their own subsistence needs. These resources are less available in logged forests. A female informant has expressed the view that an important function of the protected area is indeed the conservation of nature so that future generations of Muruts will be able to see the diversity of animals and trees. She believes that Muruts will be modern (*maju*) in the future and, therefore, will not have to rely on the forest for their livelihood anymore.

View of KPD Staff

In a document about Batu Punggul published by KPD (KPD, no date), the Corporation expressed the view that the benefits from local tourism leads to an active interest among villagers to protect the conservation area and ensure its sustainability as a basis for nature-based local tourism. Indeed, villagers support the protected area albeit for reasons other than the few benefits derived from tourism (see above).

The KPD staff at the resort is well aware that villagers continue to use the protected area as a hunting ground. However, they do not take any action. For one, they do not see the need to act since the area is under the jurisdiction of the Sabah Forest Department. Moreover, the hunters are relatives and/or fellow villagers. As such the staff is socially constrained to report the deviant villagers to the responsible authority.

The current KPD staff at Batu Punggul Resort as well as in the branch office in Sapulut and the headquarter in Kota Kinabalu are only concerned with the operation of the tourist facilities namely the marketing of Batu Punggul as a tourist destination. Despite the initial claim of KPD to contribute to biodiversity conservation through tourism, the staff is not familiar with the concept of ecotourism and its role in building up support for biodiversity conservation. The conservation area is not perceived in its function to protect biodiversity but as a landscape which facilitates income from tourism.

CONCLUSION

All informants in the Murut villages clearly expressed a commitment to become 'modern' (*maju*). However, their ecological, economic and financial situation provide little opportunities. Assistance from outside (e.g. the agriculture project implemented by KPD) so far does not provide sufficient security and incentives to turn their agricultural activities from

subsistence to cash crop production. Given the problems experienced by farmers with cash-crop production in the framework of the KPD project, it comes as no surprise that the production of food crops has a higher priority than the maximization of income.¹⁹ As such, the attempt by KPD to promote a process of 'peasantisation'²⁰ has not yet been successful.

The tourism project in Batu Punggul has so far only had a marginal impact on the economies of the villages. The current scope of the project excludes the majority of the households from direct benefits. Furthermore, the inclusion of beneficiaries (boatmen) from villages further away from the protected area provides less incentive for nearby villagers to conserve the natural resources in the protected area. The approach taken by KPD is not in line with the current discussion on Integrated Conservation and Development Projects or ICDP (Brandon and Wells 1992), which emphasizes the need for direct benefits to villagers most affected by the establishment of protected areas.

The impact of tourism on the attitude and practices of villagers towards nature conservation is also, at best, only marginal. Villagers still encroach into the area for the purposes of fishing and hunting as well as for cutting rattan and trees. This is due to their subsistence needs and the difficulty to find the necessary wildlife and forest resources in areas already logged. Precisely for this reason, villagers value the protected area. It is as an important habitat for useful plant and wildlife species.

Since Sabah Forest Department does not currently enforce regulations and the staff of KPD is neither in the legal nor social position to assist enforcement, the protected area is a *de facto* 'open-access area' (Bromley, 1992; Schulze, forthcoming) with no incentives/disincentives for villagers to discontinue encroachment. This situation might turn out to be more threatening to the biodiversity of the area than a sustainable harvesting of forest products and wildlife by villagers. This, however, requires a different approach to conservation with new

legal and institutional arrangements based, for example, on the 'co-management' (*cf. Schulze forthcoming*) of the area by the Forest Department and a local legal body comprising of villagers from villages in the vicinity of Batu Punggul. In addition, measures need to be introduced to fulfil the additional important functions of ecotourism, namely to generate financial support for protected area management and to create environmental awareness.

Another problem with regards to the sustainable management of the Batu Punggul Resort itself results from the management structure of KPD. The highly centralised nature of the decision-making process and in particular, the funding process for investments and daily operations poses serious constraints on the ability of the resort to provide services to tourists and to maintain the physical infrastructure. Likewise, it demotivates the staff, which further deteriorates the provision of adequate services. A certain level of decentralization is therefore a prerequisite for ensuring the physical and economic viability of the resort.

NOTES

- ¹ The need for direct benefits to villagers most affected by the establishment of protected areas is at the core of the Integrated Conservation and Development Projects or ICDP (for an overview see Brandon and Wells 1992).
- ² The 9th Conference of PATA Asia Division, held from 12-15 January 1997 in Kota Kinabalu has also stressed the need to integrate indigenous people in nature-based tourism.
- ³ The article is based on a study carried out in February 1998 with the assistance of Awangku Hassanah Bahar Pengiran Bagul, School of Business and Economics, Universiti Malaysia Sabah.
- ⁴ In 1997, tourist arrivals to Sabah dropped about 12% compared to 1996 (Liw and Regis 1998).
- ⁵ Another worker has been transferred to the KPD Branch in Kg. Labang.
- ⁶ The data have been provided by the Chairman of the Village Development and Security Committee (JKKK) of Labang branch. The numbers of families stated comprise all families belonging to a longhouse/village even if they have already migrated. The actual number of resident villagers is, therefore, often substantially smaller.
- ⁷ A further indication for this trend is that villagers from Kg. Tataluan, Kg. Sandukon and Kg. Kankamun applied for houses under the Housing Scheme for the Hard-core Poor. 16 houses are under construction and will soon be completed. According to one informant the houses are mainly for young families.
- ⁸ Initially, the villagers received the payment from KPD. But frequent delays resulted in complaints on part of the villagers and a subsequent change of the mode of payment.
- ⁹ Blowpipes, another traditional weapon for hunting (especially monkeys and birds living in the canopy of the rainforest) are not used anymore. According to the village headman, the last man who was able to produce the poison for the darts, has passed away some time ago.
- ¹⁰ Formerly, villagers also used old rifles. These have been confiscated by the government and most of the applications for the use of new guns have not been approved.
- ¹¹ Wild boars feed on the fruits of the *diptherocarp* trees, one of the main targets of logging. Furthermore, logging companies provide roads, which attract outsiders to hunt in the area.
- ¹² Under this scheme KPD provides the inputs (seedlings for free, pesticides to be paid after harvesting) for the cultivation of the crop to participating farmers and buys the produce after harvesting.
- ¹³ Some young villagers migrated to town (especially to Keningau) to work in the service sector (e.g. sales person in a supermarket, waiter/waitress in a restaurant).
- ¹⁴ No demarcations whatsoever are set up along the river to clearly mark the area for villagers travelling by boat.

- ¹⁵ Research in the area is not yet done on a systematic basis. However, at least one study has been carried out on butterflies by a Japanese researcher.
- ¹⁶ The officers in charge of this area are based in Keningau, a distant provincial town.
- ¹⁷ Initially, interpretation signs along the trails were provided. However, they were made of wood, which easily became rotten. An attempt to remake the interpretation signs has not been made so far.
- ¹⁸ The assessment of the interpretation skills and qualifications of the tour guides of the tour operators are beyond the scope of this study.
- ¹⁹ The practice of resource poor farmers to produce sufficient food for own consumption instead of producing cash-crops in order to maximise the income is known as 'safety-first principle'.
- ²⁰ 'Peasantisation' refers to the introduction of new relations of production and new social categories in the process of spreading cash-cropping (see Barnett 1988:99).

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