

# みんなくりポジトリ

国立民族学博物館学術情報リポジトリ National Museum of Ethnology

## Sedentarization and Nomadism among the Penan of Sarawak

メタデータ	言語: English 出版者: 公開日: 2017-12-14 キーワード (Ja): キーワード (En): 作成者: 金沢, 謙太郎 メールアドレス: 所属:
URL	<a href="https://doi.org/10.15021/00008589">https://doi.org/10.15021/00008589</a>

## Sedentarization and Nomadism among the Penan of Sarawak

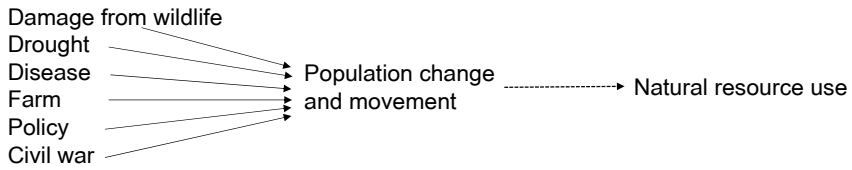
Kentaro Kanazawa  
*Shinshu University*

### ABSTRACT

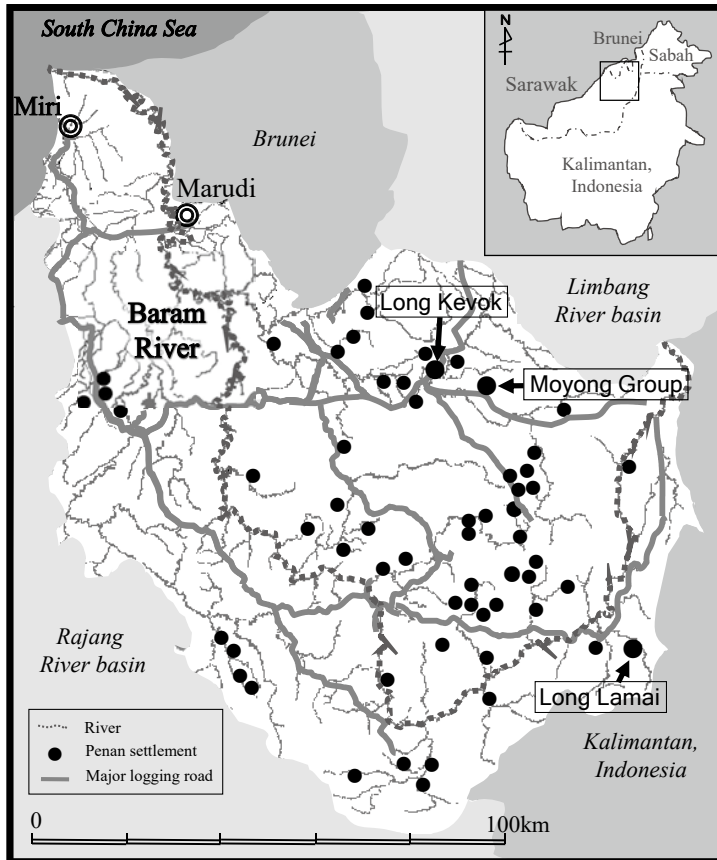
The history of migration is as long as human history, and nomadism can be considered a general feature of hunter-gatherer societies. Why then do human beings form settlements? In the past 50 years, many Penan have experienced a shift from nomadic to sedentarized ways of living. This article examines the course of events that led to the three groups of Penan in the Baram to form settlements. Their shift to a settled lifestyle had regional and historical features, caused by a number of factors such as influence of neighboring groups that engage in agriculture, contact with foreign missionaries and local pastors, and internal division among themselves. Today socioeconomic factors, such as commercial logging of the forests and the Sarawak state government's policies to promote sedentarization, have increasing importance. The government's policies, however, have been introduced on the side of development of the forest, distant from what the Penan had hoped. Further assessment is needed of the effects on local ecosystems and on the Penan's use of resources.

### INTRODUCTION

"Anthropography of Human Migration," a book in Japanese edited by Michiko Intoh, argues that "humans are fundamentally migratory animals, making *homo mobilis* an appropriate name" (Intoh 2013: 8). After its birth on the African continent over 200 million years ago the human race (*Homo sapiens*) has dispersed throughout the world. Migration is an important adaptive strategy for human beings. At a 1966 symposium entitled "Man the Hunter," Richard Lee and Irven Devore, postulated the positioning of the "Nomadic Style" as an universal feature across the culturally diversity of individual hunter-gatherer societies (Lee and Devore 1968: 11–12). In Intoh's book, Kazunobu Ikeya writes "Nomads have come and gone in every era of human history in the many cultures around the world" (Ikeya 2013: 358). He continues that we can see from the example of African Pygmies and the San (Bushmen) why humans move around (Ikeya 2013).



**Figure 1** Factors causing rainforest hunter-gatherers to move  
 Source: Ikeya, 2013: 83 (translated by the author)



**Figure 2** The study area  
 Source: Made by the author

The basic factor for their moving is the distribution of natural resources such as water. Also, as indicated in Figure 1, humans move for other reasons, such as to avoid bird and animal damage or in response to climate change. People also move when many people have died from an illness. Ikeya mentions in addition political economic factors, such as agricultural labor, national policies, and civil war.

Thus, the history of migration is as long as human history, and nomadism can

be considered a general feature of hunter-gatherer societies. Why then do human beings form settlements? The author addresses this basic question by using the example of the Penan, a hunter-gatherer society that dwells in the Malaysian state of Sarawak.

According to a 1990 report, fewer than 400 Penan continued the nomadic lifestyle (Langub 1990: 15–26). The population of Penan across the state is about 10,000, of whom 60 percent inhabit the Baram Basin. The Baram River, which originates near the border with the Indonesian territory of Kalimantan, joins the Tutoh and Tinjar rivers at mid-course and flows into the South China Sea. The Penan in Sarawak live mainly in the upper and middle reaches of the river basin.

This article focuses on the three groups and communities of Penan shown in Figure 2, looking at how and why they have become sedentarized. Participant observation and interviewing were conducted in Long Lamai village in January, 1998, in the Long Kevok village in March, 1999, and in the Moyong group in September of 1999, and September of 2010.

## THE SAGO PALMS

Anthropologist Thomas Headland presented the “wild yam question” (Headland 1987: 463). His “question” suggested that, owing to the difficulty of obtaining wild sources of carbohydrates in tropical rainforests, hunter-gatherers could not have lived without cultivated crops. However, the “wild yam question” does not apply to the Penan.

In an issue of the Sarawak Gazette from 1949, Tom Harrison of the Sarawak Museum reports the following (Harrison 1949: 133):

“After rice was introduced, the Penan did not move towards slash-and-burn; they have chosen to continue to rely on the abundance of the land to the present day.”

The word “sago” originates from the Malay term “sagu,” and the sago palm accumulates starch in the pith of the trunk. There are known to be 200 genera and 3,800 species of plants belonging to the *Palmae* and *Arecaceae* families, with 12 genera of palms that accumulate starch in the pith of the trunk. “Sago palm” usually refers to *Metroxylon sagu*, but starch is also harvested from the *Arenga* and *Mauritia* species. The Penan especially prefer the *Eugeissona* palm (Photo 1), which is distributed widely across inland areas of Borneo, growing especially on steep slopes and ridges. There are also wild varieties called “uvud” and “jakah” by the Penan. Also, the pith of the trunks of some varieties is eaten raw. Sago palms are necessary for the Penan’s self-sufficiency, and the quantity of sago palms is the most important factor in deciding to move to another area. Sago palms have provided necessary carbohydrates for the Penan and enabled a lifestyle where they do not rely on agriculture (Photos 2, 3, 4).



**Photo 1** The core of *Eugeissona* palm (Photograph by the author, September, 2010)



**Photo 2** Scraping of pith of sago (Photograph by the author, September, 2010)





**Photo 3** Extraction of sago starch (Photograph by the author, September, 2010)



**Photo 4** Drying of harvested sago starch (Photograph by the author, September, 2010)

## CHANGES IN THE FOREST ENVIRONMENT

In the late-1980s, the people of the Sarawak became the focus of the international media. The Penan, as the indigenous people of Sarawak, blockaded roads to protest against the state government and logging companies over commercial logging. This news from Sarawak about protests from local people in response to destruction of tropical forests was widely reported domestically and abroad. As a result, the US Senate adopted a resolution criticizing the deforestation of Sarawak, and the U.K.'s Prince Charles declared that it was equivalent to a massacre of the indigenous people.

Cultural anthropologist J. Peter Brosius, based on his fieldwork in Penan communities, appealed to the government of Sarawak to recognize that Penan's traditional way of using natural resources was separate from the way of shifting cultivators or other indigenous groups (Brosius 1986: 180–181). Also a State cabinet committee's team of experts prepared a report entitled *Report on the Effects of Logging Activities on the Penans in Baram and Limbang Districts* which said, that "Nomadic Penans manage their resources on an ecologically sound basis, and their subsistence activities should thus be supported by forest conservation policies" (Jabatan Pembangunan Negeri 1987: 93). This document also addressed the State government's environmental policies, pointing out a lack of environmental impact assessment as well as a lack of supervision of logging activities. Further, it proposed the establishment of Biosphere Reserves for nomadic Penans, along with the provision of communal forests for limited personal use by the Penan and other indigenous communities (about 8.09 hectares per household). As a result, the State government made a plan that would protect roughly 66,000 hectares of forest (as a Biosphere Reserve) for the nomadic Penans. This was widely reported in local newspapers (Figure 3). However, the plan was suddenly reversed and the forest instead became a site for commercial logging. Why was the plan withdrawn? One explanation is that parties involved in logging feared restrictions on their timber concessions. The planned Biosphere Reserve was later completely deforested.

In return, the government created special socioeconomic policies for a part of the Penan (referred to for the rest of this article as "Public Services"). Concretely, these Public Services involved the dispatch of *sukarelawan* (volunteers), whose purposes were to help the Penan adopt the settled life as well as to help them adjust to socio-economic change; second to provide them with some basic services in agriculture, personal and community health care, and primary education; third, to instill in the Penans a spirit of self-reliance and a sense of responsibility to their communities and country; and fourth, to help speed up efforts to bring the Penan into the mainstream of development. *Sukarelawan* were provided with about 350 Malaysian Ringgit (MYR) and expected to report to the main office in Marudi at fixed intervals about the communities to which they were dispatched. In 1989, a pioneering group of 15 Penan men and women were dispatched as *sukarelawan* to

# 66,000 hectares reserved for Sarawak's nomadic people Special forests for Penans

By James Ritchie

KUCHING, Mon. — The Sarawak Government has set aside several tracts of tropical rainforests totalling 66,700 hectares for the exclusive use of a group of 300 nomadic Penans in Baram and Ulu Limbang.

Among the "special Penan forests" are Ulu Magoi (5,000ha), Ulu Tutoh (2,200ha), Adang (5,000ha) and Ulu Seridan (1,400ha).

State Forestry Director Datuk Leo Chai told the *New Straits Times* that Sarawak set aside the virgin tropical rainforests for Penans to carry on with their hunting and gathering activities.

Apart from spending more than RM6 million in development programmes during the past six years, the Government has also allowed the nomadic Penans to use the Gunung Mulu National Park (covering 52,000ha) for hunting.

"The Penans can practise their traditional way of life and also use timber from these forests for their domestic use but not for commercial purposes," Chai said.

He said the State authorities had also allowed the semi-settled Penans and those living in longhouse communities to use the Ulu Melana forest reserve (22,000ha).

Existing development programmes for the Penans include a Penan Service Centre at Long Kevok, medical and health services projects and agricultural projects.

The State Government, which had established a RM1 million Penan Development Fund, has also initiated a Penan Volunteers Service Corp where selected Penans were trained to help their people adjust to the changing times.

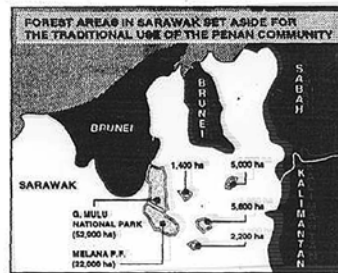
"Sarawak's indigenous people, including the Penans, make up about 70 per cent of the State's population of 1.7 million. Their rights, like those of other indigenous people, are enshrined in the Federal Constitution," Chai said.

He added that his department would continue to initiate programmes that benefited the indigenous people. Chai stressed it was Sarawak's policy to improve the people's welfare and offer the ethnic groups opportunities to participate in socio-economic development.

"This is to free the people from diseases, malnutrition and illiteracy."

"Special attention have been given not only to the nomads but also those who have settled in longhouses over the past three decades because they have been left

□ PLEASE TURN TO PAGE 2, COL 4



## Few Penans are nomads

□ FROM PAGE ONE

behind by other ethnic groups in socio-economic development."

The 10,000 Penans are part of Sarawak's 26 ethnic groups (there are 50 more dialectal groups) and are spread out in 87 villages,

mostly in Baram, Belaga, Miri, Bintulu and Limbang.

All the 300 nomads are found in Baram while the Penans in Limbang and the Belags are semi-settled in longhouse communities. The Penans in Miri-Bintulu are no longer nomadic.

Figure 3 An article in a local newspaper  
Source: Ritchie, 1993: 1-2.

communities outside the one into which they were born.

Service centers, on the other hand, began with the 1987 construction of a primary school in Lusong Laku, a village in the Belaga District of western Sarawak, and were also established in Batu Bungan, Long Kevok, Long Jekitan, and Long Luar. The "services" provided include facilities such as longhouses, primary schools, clinics, and agricultural stations, as well as the construction of logging roads. Primary school teachers were dispatched by the Ministry of Education, and dormitories were provided for children coming from distant villages or nomadic groups. Doctors and nurses are dispatched by the Ministry of Health to clinics to provide periodical medical care, and agricultural materials are



brought to and stored in agricultural stations.

These Public Services receive a yearly budget of around one million MYR (New Straits Times Oct. 21, 1993). Although at first the government provided the full sum, in increasing number of cases timber companies shoulder some of the costs. For example, of the 1.2 million MYR budget for the construction of the Long Jekitan center, the company Samling provided 900,000 MYR. Samling also provides money for maintaining logging roads in the village's vicinity (Borneo Post Apr. 18, 1996). These Public Services are not provided uniformly. Thus below selected cases are examined (1) Long Lamai, where Public Services are partially implemented, (2) Long Kevok, where they are fully implemented, and (3) the Moyong Group, where they are not implemented at all (Figure 2).

### THREE CASES

#### [Case 1] Long Lamai

Long Lamai is in the upper Baram Basin. With around 500 people, it is the largest Penan community in Sarawak (Photo 5). Twenty families live in a longhouse constructed in the village center, and around 80 additional families live in their own separate houses. The Balong River flows beside the village. Commercial logging has already begun in the forest around the village. Wet rice fields are increasing gradually in the area around the village, but the staple food of the Penan in Long Lamai is hill rice produced by shifting cultivation. The average area of land used by each household is 0.94 hectares for shifting cultivation, 0.22 for wet rice fields, and 0.03 for vegetable gardens. Further, five families are engaged in wet rice cultivation, with at most 1.62 hectares managed by a single family. Agricultural skills have been learned from nearby ethnic groups. The average size of the 20 households interviewed, was 5.2 people. Seventy three



**Photo 5** Long Lamai (Photograph by the author, January, 1999)

percent of people had attended primary school, and 17 percent had advanced to middle school or above. Of all of the Penan groups residing in the Baram Basin, the rate of studying at middle school or higher level is exceedingly high.

Roughly half the families in Long Lamai receive income from rattan crafts or agar wood (*Aquilaria* species) harvesting. Some villagers earn more than 1,000 MYR a month from their agar wood harvest. They are thought to venture into the steep mountainous region near the border with Kalimantan to harvest it (Kanazawa 2017). In addition, one person receives a monthly income from wood working. Some families raise chickens, as well as pigs and ducks. The village has one primary school teacher and two *sukarelawan*.

Neighboring agricultural groups, such as the Kelabit, Saban, and Kenyah, moved to the upper Baram Basin in the mid-19<sup>th</sup> century. At that time the Penan lived nomadically in the forest. In Lio Matu, a Kenya village located downstream, bartering, occurred between Penan and the settled farmers, referred to as “tamu”.

Since the early-1940’s, Protestant missionaries, mostly from Australia, have continually come to the upper Baram Basin. As Christianity spread among people in this region, some among the Kelabit and Saban became pastors (Murang 1993: 85–91). The Saban pastor, Lahan Apoi, was educated for two years at the Lawas missionary school. At Christmas he would invite Penan to the village, and go into the forest playing hymns on a gramophone. His worship in the forest continued for years, and in 1958 he decided to devote himself completely to proselytizing the Penan. At first some Penan wanted to settle along the Belaka River, but in the course of a few months many people had gathered there, and so they moved to a fertile, flat area that had been created by the flooding of the Balong River. This is the location of today’s Long Lamai. Through Lahan, the Saban contributed building materials, along with cassava, bananas, papaya, and sugarcane planting materials. Lahan subsequently began teaching in a thatched roof school with no walls. Books and pencils were donated by the missionaries.

Roland Galang, an official of the Baram Region, visited Long Lamai in November 1959 and stayed for two or three weeks. In his report he expresses astonishment that among the 22 Penan households in Long Lamai, there were some young people who could read the Bible. On August 1, 1960, management of the schools was transferred from the church to the State government. Thirteen females and eight males were registered as students. Lahan Apoi continued working as a teacher there until a replacement was found in 1963. An administrative official who visited afterwards said, “I have never seen a group of Penan looking so fit and clean – settled or nomadic” (Murang 1993: 90). In the 1960s, the missionaries, Phyllis Webster and Marjory Britza, were stationed in Long Lamai. These two women translated the Bible and hymns into the Penan language, and performed missionary work in the village for four years. Afterwards, until the 1967 withdrawal of the Indonesian communist forces, around 1,000 British soldiers were stationed in the vicinity of Long Lamai. The Penan provided wild boar and other meat to them, and, in return, they received medical care and

were employed to do reconnaissance work in border areas.

When a Long Lamai elder died in 1962, there was dispute over how to conduct his funeral. According to Penan custom, the body would be left in the house and the other people living there would move to a new location. At that time, conflict remained between Christian beliefs and traditional customs. In the end, Jangan Kadir and the family moved 20 km north of Long Lamai, to the Ba Lai. Further, in 1983, Tama Simon and the family members moved 60 km north of the Ba Lai to Pa Berang.

Two *sukarelawan* assigned to Long Lamai in 1989, named Unut and Kala, described their duties as including the following (Unut and Kala 1990: 35–41): adult education, medical care, support with agriculture and livestock rearing, production of handicrafts, and requests to the government for materials. However before *sukarelawan* were dispatched there, Long Lamai had, through the work of missionaries and others, established the foundations for education, medical care, and agriculture.

[Case 2] Long Kevok

Long Kevok is located in the middle-upper Baram Basin. It is at the crossroads of logging roads that continues to interior areas, and is an important location for transportation. Near the village there is a logging camp. The population of 72 includes 13 households with an average of 5.5 people in each. Sixty-one percent of the people have studied in primary school, while 2 percent have continued to middle school or above. When a school was built in the village, some adults enrolled who had never before received schooling. Each household manages an average of 0.86 hectares of land for shifting cultivation, the largest amount is 2.43 hectares. There are a small quantity of vegetable gardens, but no wet rice fields. Slash-and-burn techniques began under the guidance of the Public Services. At present, their staple food is rice, supplemented with cassava in times of shortage. The villagers' main source of income are agar wood and handicrafts made from rattan. In addition a small library in the village employs librarians. The average monthly income per household is about 68 MYR. In terms of possessions, the lack of large rivers nearby means the villages have no boats, but there are four motorcycles and eight chainsaws in the village. Each family raise chickens.

According to the village head, the Penan first settled in the area around 1982. Since that time there been the coming and going of timber transport trucks has been frequent. The villagers are exceptional in the Baram area in that they have not participated in road blockades. The State government constructed a longhouse in the village in 1986, and medical doctors are dispatched there twice a month.

A service center was later planned for Long Kevok. Hasim Mohd. Ali, the chief of staff of the armed forces, announced this on September 16, 1990, at the 59<sup>th</sup> anniversary of Malaysia Day.

Based on the concept of "Heart and Mind", the goal of the Service Centers is to build a stronger relationship between the Malaysian army and the villagers,



**Photo 6** Long Kevok (Photograph by the author, March, 1999)

helping them to cooperate and better understand each other, in order to strengthen the unity of the State. Further, concrete proposals were prepared through discussions with the State government and the Economic Planning Unit. In January, 1991, blueprints for the center were drawn up through discussions between the army and the Ministry of Works. The necessary materials were provided by the Miri District Office. Construction was begun by about 100 military personnel in May, 1991. The facilities constructed included a primary school, dormitory and cafeteria. They were reported to have cost 500,000 MYR. Afterwards, 500,000 MYR were set aside for the longhouse constructed in March, 1991 (Photo 6). As part of this project, a military medical team provided medical examinations and health consultations. The companies Samling and Rimbunan Hijau, helped finance the construction of the village's Service Center. An additional 40,000 MYR was provided later, allowing for a library. Thus, compared with other villages, Long Kevok has received generous assistance from the State Government. The population at the time the longhouse was built in 1986 was around 150 people, double that of the present. About half the people who first moved there returned to a nomadic life in the forest. In September, 2003, a fire broke out in Long Kevok. Luckily, there was no loss of life, but all facilities, including the longhouse, were destroyed. After repeated appeals to the government and logging companies by the head of the village, it was arranged that a new longhouse would be built.

#### [Case 3] The Moyong Group

As of 2010, the Moyong Group lives in the middle-upper Baram Basin along the Puak River (at 115°6'E and 3°51'N). Depending on the availability of sago palms, the nomads generally stay in one place for a few weeks at a time. They sleep in the type of hut shown in photo 7. They decide their next site based on projections of sago palm availability.



**Photo 7** The hut of nomadic Penan  
(Photograph by the author, September, 2010)

According to a 1990 study by Jayl Langub, the Moyong was made up of 44 people in 11 families (Langub 1990: 19), and they lived in the upstream area of the Temalon River, around 115°6'E and 3°45'N. After this area became the site of commercial logging, many outsiders, such as the State Government, logging companies, and NGOs began to appear frequently in the area. It started with missionaries and pastors from neighboring communities. Volunteers from Denmark also proposed the construction of a longhouse for nomads along the Puak River. This led to the construction of residences for 10 families. Also, *Eugeissona* palms were cultivated following a proposal of another NGO, but these palm have not yet matured to the point that they can be harvested. In addition, there has been construction of a natural gas pipeline that cuts across an inland area from Bintulu on the coast to Kota Kinabalu in the State of Sabah. Conflict broke out between the Penan and the oil-gas company. Penan living along the Puak River came



**Photo 8** Road blockade by Moyong Group  
(Photograph by the author, September, 2010)

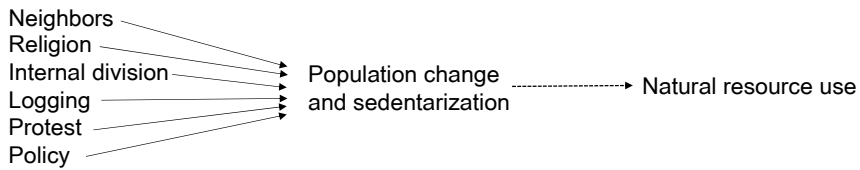
together in order to express their objections and are staying in huts to participate in the road blockade (Photo 8). Some have not entered the forest for months in order to continue the blockades. The protesters were unable to enter the forest for months during this period, although their only guaranteed source of carbohydrates up to the present has been wild sago, they cannot live without the wild sago palms. So some of them return to the site of their nomadic camps in the forest, coming and going from their settlement (Photo 7). Those harvests are shared among the group. The Penan, while prioritizing their road blockage, search for a livelihood strategy that will allow them to best maintain their customs of nomadism and sharing, based on their ecological knowledge.

## CONCLUSION

In the past 50 years many Penan have experienced a shift from nomadic to sedentarized ways of living. This article has examined the course of events that led three groups of Penan in the Baram Basin to form settlements. Figure 4 shows the factors leading to sedentarization.

The first factor is the influence of neighboring groups that engage in agriculture. Through trade and exchange with these settled groups, the Penan gained access to various information and items that could not be obtained in the forest. The *tamu* barter market provided an opportunity for hunter-gatherers and farmers to understand the distinctive features of each other's lives. The Penan wanted pans, pots, cigarettes and so forth. The settled farmers wanted the bear and porcupine gastroliths gathered by the Penan from the forest, as well as agar wood and Borneo camphor. For them, the Penan's woven rattan baskets and rugs were special commodities. The second factor was contact with foreign missionaries and





**Figure 4** Factors causing rainforest hunter-gatherer to become sedentarized  
Source: Made by the author

local pastors. They urged the nomadic Penan to become sedentarized in one place so that they could teach them about Christianity and urge them to take part in periodic worship. Further, these missionaries supported the construction of churches where worship could take place. Third, there were internal divisions among Penan groups that can be indicated as another factor causing them to become sedentarized. It is thought that some Penan from a group move to a new location and those who remain wish to live and work in settled lifestyle. Fourth is the influence of commercial logging of the forests. From the colonial period to today the development of the Sarawak forests has focused on maximizing the yield of timber. Indigenous peoples' traditional land use has consistently had limitations placed on it. The *Sarawak Land Code* 1958 that is in place today includes native customary land rights. However, these rights are not recognized in the case of people who, like the Penan, continue to live as forest nomads, or who settled after the establishment of the Code. The Penan have applied unsuccessfully for recognition of their area as native customary land or communal forest. A method called "selective logging," which involved standards based on type of tree and diameter of the trunk, is used in Sarawak's commercial logging. However, even when using selective logging, damage is inevitably incurred by surrounding plant and animal habitats when cutting and removing the trees. This is a major general disruption of the Penan's work and lives. The fifth factor is the Penan's protests against the development companies and the State Government. There has been commercial logging of the Upper Baram Basin, development of oil-palm plantations in the middle Baram, afforestation with a single tree species such as acacia, construction of large dams, and conflict with the oil-gas company over building of a pipeline. Penan in the Moyong Group along the Puak River came together in protest, and settled temporarily while making roadblock against the company. The last factor is the policies of the State Government toward the Penan. Around 1990, Public Services, such as construction of longhouses and service centers were suddenly provided to the Penan in the name of "lifestyle modernization." No discussions with the Penan were held when these Public Services were introduced. The government's "modernization" was to the Penan a fundamental change in their way of life and livelihood, from a nomadic life based on hunting and gathering in the forest to settled farming life.

In late June, 2002, more than 30 representatives from Penan groups gathered

in Long Sayan in the upper Baram Basin to hold a three-day meeting. During this the Penan put together a “policy evaluation” for the Sarawak State government. Nine groups gave an average score of F, that is, “failure” (Sahabat Alam Malaysia 2002).

Thus far, the Penan’s shift to a settled lifestyle had regional and historical features, caused by a number of factors acting in combination. Today, however, socioeconomic factors, such as commercial logging of the forests and the government’s policies to promote sedentarization, have increasing importance (Kanazawa 2012). The Sarawak state government’s “Public Services” policies have been introduced on the side of development of the forest, distant from what the Penan had hoped. Further assessment is needed of the effects this has on local ecosystems and on the Penan’s use of resources.

Before closing, the author would like to introduce an autonomous initiative by the Penan. At the end of 2011, Penan in the upper Baram Basin, including those in Long Lamai, presented the idea of a “Peace Park.” (This is called “Tana Pengidah Pengurip Penan” in the Penan language and “The Penan Peace Park” in English, abbreviated as TPPP [Penan 2011]). The proposed area is 1,628 km<sup>2</sup>, 56 percent being primary forest (31 percent lowland *Dipterocarps*, 31 percent lower montane forest, and 1 percent upper montane forest). The subtitle of the document in which they presented the TPPP plan of action was “Penans self-determining for the benefit of all.” Aiming to maintain the Penan nomadic way of life to along with “benefits for all,” the Penan are taking action to make progress with their “Peace Park.”

## REFERENCES

- Brosius, J. P.  
 1986 River, Forest and Mountain: The Penan Gang Landscape. *Sarawak Museum Journal* 36(57): 173–184.
- Hanifah, Y.  
 1990 In Our Opinion: The Penan Volunteer Corps. *Sarawak Gazette* CXVII (1514): 3–4.
- Harrison, T.  
 1949 Notes on Some Nomadic Punans. *Sarawak Museum Journal* 5(1): 130–146.
- Headland, T. N.  
 1987 The Wild Yam Question: How Well Could Independent Hunter-Gathers Live in a Tropical Rain Forest Ecosystem? *Human Ecology* 15(4): 463–491.
- Ikeya, K.  
 2013 Nettai chiiki ni okeru Shuryo-Saishumin no idou no tokuchou (Characteristics of the movement of the hunter-gatherer in the tropics). In M. Intoh (ed.) *Jinrui no Idoushi (Anthropography of Human Migration)*, pp. 69–85. Kyoto: Rinsen Book Co. (in Japanese).
- Intoh, M. (ed.)  
 2013 *Jinrui no Idoushi (Anthropography of Human Migration)* Kyoto: Rinsen Book Co. (in Japanese).

## Jabatan Pembangunan Negeri

- 1987 *Report on the Effects of Logging Activities on the Penans in Baram and Limbang Districts: A Short Term Development Programme.*

## Kanazawa, K.

- 2012 *Nettaiurin no Political Ecology: Senju-min, shigen, globalization (The Political Ecology of Tropical Rain Forests: Indigenous Peoples, Resources and Globalization).* Kyoto: Showado (in Japanese).
- 2017 Sustainable Harvesting and Conservation of Agarwood: A Case Study from the Upper Baram River in Sarawak, Malaysia. *Tropics* 25(4): 139–146.

## Langub, J.

- 1990 A journey Thorough the Nomadic Penan Country. *Sarawak Gazette* CXVII (1514): 5–27.

## Lee, R. B. and I. Devore

- 1968 Problems in the Study of Hunters and Gatherers. In R. B. Lee and I. Devore (eds.) *Man the Hunter*, pp. 3–12. New Brunswick and London: Aldine Transaction.

## Murang, O.

- 1993 Kelabit, Sa'bans, Kenyas, and Their Penan Neighbours: Partners in Development. In V. H. Jr. Sutlive (ed.) *Change and Development in Borneo*, pp. 83–100. Williamsburg: Borneo Research Council.

## Penan

- 2011 *The Penan Peace Park: Penans self-determining for the benefits of all.* (Internet, 31th Jan. 2017, [http://www.penanpeacepark.org/resources/2012\\_Penan\\_Peace\\_Park\\_Proposal\\_English.pdf](http://www.penanpeacepark.org/resources/2012_Penan_Peace_Park_Proposal_English.pdf))

## Ritchie, J.

- 1993 Special Forests for Penan. *New Straits Times* Oct. 19: 1–2.

## Sahabat Alam Malaysia

- 2002 Press Release: Penan Community Meeting and Anniversary of the Sarawak Penan Association 7–9 June (Internet, 9th Sep. 2009, <http://surforever.com/sam/pressrelease/reportcard.htm>)

## Unut, G. and M. Kala

- 1990 Laporan Sukarelawan Desa Penan, Long Lamai, Baram Bagi Suku Tahun Pertama 1990. *Sarawak Gazette* CXVII (1514): 36–41.