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Equatorial Biomass Society

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Grant-in-Aid for Scientific Research (S)

Planted Forests in Equatorial Southeast Asia:

Human-nature Interactions in High Biomass Society



A Message from Project Leader

Noboru Ishikawa

Principal Investigator of the project, Center for Southeast Asian Studies, Kyoto University

The equatorial areas of Southeast Asia are well known for their high concentration of biomass, which accumulates with the combination of high solar radiation energy and heavy rainfall. The region has also been a fertile ground for the appropriation and commodification of natural resources. In the past few decades this tropical zone has undergone a fast-paced metamorphosis that has raised concerns as to the present and future of its biomass and societies dependant on it.



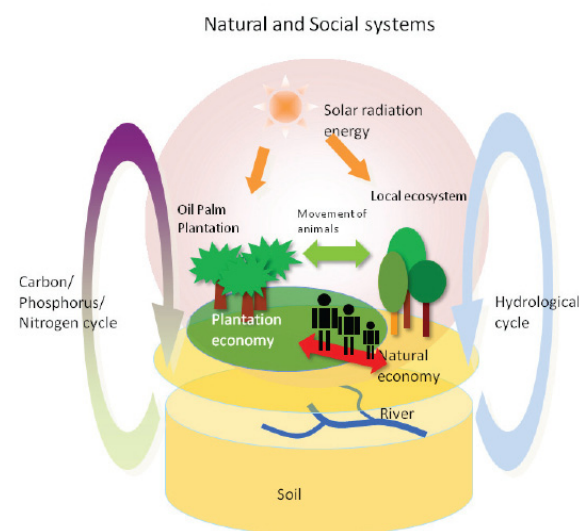
This fundamental transformation of biomass is a common feature to many societies in insular Southeast Asia. Thus, the landscape of rainforest-cum-plantation fields offers us a proper locale to examine a biomass shift from jungle produce, cultivated rubber and timber, to oil palm and Acacia mangium, signalling a new form of time-space compression, where deforestation, plantations, and reforestation work simultaneously within the context of

Promotion of Science (JSPS), is a multi-sited, multi-disciplinary study, and a strategic combination of field sciences. To understand the transformation of high biomass society in maritime Southeast Asia, our research focuses on the articulation points between social systems and natural systems.

Our team members, both social and natural scientists, engage in the study of connections. From community, region, nation-state, to empire - or from patches of lands to riverine landscapes, the scaling and rescaling of the units of analysis in time and space allow us to comprehend how constituent parts of a system are related, and distant places linked. What is attempted at micro-, meso- and macro-levels is the search for a common ground that makes possible the investigation of the convergences that exist between geosphere, biosphere and human habitats in the newly emergent landscapes of planted forests.

While the science of nature and technology has dealt with material flows such as water, gases, and minerals through physical and biological processes, social science has specifically focused on the nature of both natural and plantation economies, micro-socio-economic relations connecting local communities, commodity chains and webs linking hills and plains, and the global reconfiguration of micro-macro relatedness. The strength of this project lies in the strategic combination of field sciences, designed to shine the analytical spotlight on the areas of convergence and the linkages that create them.

We aim to comprehend the nature of such connections, circulations and the structural determinants, examining the relations between nature undergoing intense transformation and human communities, taking planted forests as a case in point. Through collaboration between specialists from the fields of anthropology, geography, sociolinguistics, global history, political economy, environmental economics, plant, animal and forest ecology, hydrology, soil science, and life cycle assessment, we

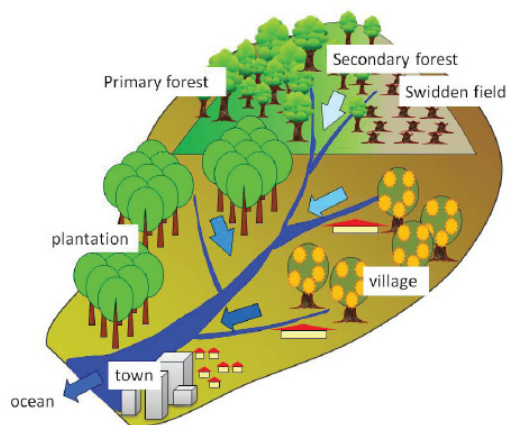


global energy crisis and climate change.

Our five-year project funded by Japan Society for

aim to examine the multi-dimensional driving forces of change in nature/non-nature interactions in a heterogeneous landscape consisting of oil palm and Acacia mangium plantations, primary and secondary forests, and swidden fields.

Ecological research has been designed to understand eco-systems of natural and planted forests. At a local level, multiple research plots are selected by ecologists, with regard to the spatial structure of biodiversity, nutrient cycle such as nitrogen and particulate organic matter in the forests and in the river. Hydrological research looks into water cycles in the ocean, the atmosphere, the forests, and the rivers, in several tens of square km at a mesoscale. Socio-cultural research attempts to examine the regime shift of local communities, from traditional natural economies, (swidden cultivation, and hunting and gathering of non-timber forest produce) with wage labor at timber camps to newly emergent combinations of oil palm smallholding with income generation through off-farm/urban wage labor. A series of household interviews will also be conducted by anthropologists and geogra-



phers who look into the economic portfolio of rural communities, and commodity webs connecting various social groups in hills and plains.

The human-nature interactions that are the focus of the project highlight a number of larger questions regarding resource and environmental, not to mention development governance. Plantations in insular Southeast Asia have been endorsed by various systems of certification and financially backed by the international community in

search of a sustainable development path for human societies. Planted forests of oil palm and Acacia mangium as a potential energy source are thought to be good for carbon emissions, and financial sector seeks to create instruments for the securitization of tropical biomass under the newly proposed REDD and REDD Plus (Reducing Emissions from Deforestation and Degradation) initiative. The result is a dynamic process of negotiation within an increasingly complex threshold between nature and non-nature.

Those of us engaged in this new project examine whether or not societies located in the tropics can find an alternative path toward their own sustainability. The feasibility of planted forests as a sound ecological and socio-economic base for local communities can only be worked out through collaborative research that cuts cross-disciplinary field studies and encompasses a holistic mix of both the social and natural sciences. The transformation of Southeast Asian biomass society reflects many opportunities and challenges faced in other equatorial zones in the world. We hope that our research will show how Insular Southeast Asia can serve as an important locale to test the resilience of local communities of people, fauna, and flora in the search for strategies to adapt to the emergent forces driving large-scale landscape transformation.

Reports from Project Members

Kemena-Jelalong river: Ethno-linguistic view of an ecosystem in transformation

Nathan Badenoch (CSEAS Kyoto University)

The profound changes underway in the landscape mosaic of the Kemena-Jelalong watershed are representative of the fast-paced, resource-intensive development trajectory of Sarawak. The upper watershed areas (*ulu*) are being opened up to new forces of change, as logging roads are constructed to facilitate the movement of natural resources. Improved access means that industrial plantations (acacia, oilpalm) and new forms of market-oriented smallholder agricultural production (oilpalm, pepper) are securing a place in the landscape as well. The rapid pace of change has implications for both the natural and human diversity of these landscapes. Although transportation and communications have typically been difficult, the area has by no means been isolated from lowland society, nor have *ulu* groups been isolated from each other. River systems have traditionally been the social and economic lifeline of *ulu* communities, and provide a useful framework for analyzing both human-nature and human-human relations.



The high degree of interaction between diverse groups in Borneo has typically created an ever more complex mosaic of cultures and languages. Contact between language speakers can result in both more and less diversity, depending upon the nature of interactions. Languages influenced by the speech of neighbors in different areas may diverge to create new dialects that may eventually become mutually unintelligible. At the same time, intensive interactions among many groups often creates a shared layer of language, including vocabulary and

grammar, which is often based on shared knowledge systems and livelihood strategies. In the upper Kemena-Jelalong, the arrival of Iban immigrants during the middle of the previous century introduced a new lingua franca to the local *ulu* community.

Upstream from our departure point of Tubau, the area is populated by Iban, Kayan, and Penan, living in longhouses along the rivers, and one Vaii Segan village slightly downstream. The town of Tubau has for years been the central commercial point of exchange for the watershed, but this seems to be changing as economic development in the upper watershed moves forward. The following preliminary observations from our field trip help set the stage for developing hypotheses regarding the current state and future directions of ethno-linguistic diversity:

Multilingualism as the norm

Our observations suggested that multilingualism is the norm among the people of the area. Many of the people, particularly orang *ulu* and Chinese, comfortably used as many as four languages. Some Iban living in mixed longhouses were competent in Penan. There are several lingua franca in the region as well, but among the communities of the upper area, Iban appeared to be the most common language of communication across ethnic groups. This is interesting given that the Iban are reported to be relatively new arrivals in this area. Use of Malay observed in public situations was mostly limited to situations when downstream Chinese were present. Communication between Penan and Kayan was not observed outside of Tubau town, where Iban and Malay seemed to be the preferred languages of communication. A question for follow up here is whether the introduction of lingua franca reflecting recent socio-economic and demographic dynamics signals different networks of communication among *ulu* group. Alternatively, this may be a remnant of the economic functions provided by Tubau historically. The capacity for code-switching is certainly

a common feature of the socio-linguistic environment, as people often moved comfortably between Iban, Malay, Kayan and Penan, not to mention some Chinese. It can be assumed that there is an abundance of resources for communication among these diverse groups.



At an Iban longhouse

The typical Sarawak river-community is characterized by a dense network of social relations, including trade, marriage, administration and resource management. The first impression from our trip was that this river system as well has been the backbone of multi-layered social networks that are facilitated by capacity for code-switching. Have these multilingual communication networks played a special role in creating social capital at the river-system level? Observation of current strategies in language choice across a wide range of settings – including commercial transactions, resource access negotiations, longhouse administration and informal social exchange – would offer insight to the creation, maintenance (and perhaps degradation) of social resources at the river-system level.

Longhouse demographics

Two demographic issues were notable in the upper Kemena-Jelalong. First, in the upper watershed there are at least two mixed Iban-Penan longhouses. While it is not uncommon to find individuals of different ethnicity in a longhouse, it is a relatively recent phenomenon that significant portions of the longhouse residents are from different groups. First indications are that Iban residence in an orang *ulu* longhouse results in Iban emerging as the common language, and strong influence of Iban residents on decision making. Second, there was a marked absence

of adolescents and young couples. This seems to be the result of education and employment opportunities outside of the longhouse. People living outside of the longhouse will ostensibly be exposed to Malay, English and perhaps Chinese. They will also have less exposure to traditional forms of communication and interaction, through which knowledge and values are transmitted. However, given the relatively high awareness of cultural values and the presence of local language media, it is not clear what choices the next generations will make in terms of language use. Another related hypothesis is the link between loss of language capacity and traditional knowledge, including not only aspects of cultural heritage but also local ecological knowledge.

Information and livelihoods

Economic transformation, when driven by market forces, makes access to information a key concern for local people. Decisions about cropping, off-farm employment and other market-based economic opportunities all require information. The role of the radio in transmitting information is interesting in Sarawak, as radio programs in Malay, Iban, Kayan and Bidayuh are broadcast on a daily basis. In both the longhouses and Tubau, we observed people listening attentively to the radio on a daily basis. Iban language programmes seemed popular among both Iban and non-Iban people. Newspapers were also available in Tubau, including Chinese and Malay-language papers. The *Utusan Borneo*, a Malay-language paper, has a daily Iban language section as well, although it seems fair to assume that the influence of written Iban in rural areas is rather low. Peoples' decision making is based on access to different sources of information, and one key strategy for managing livelihood transitions is managing information. With the intensely multilingual nature of social interactions, looking at how people chose information sources could shine important light on perceived economic value of certain languages, and multilingualism more generally.

Tubau ghost-town: From river-economy to road-economy?

One can imagine that the town of Tubau at one time played an important role in the lives of the upper Kemena-Jelalong people. The impression now is that it is becoming something of a ghost town. The Teochiu traders present seemed to run a slow business, and arrivals at the jetty were not noteworthy. If the extension of the transportation network through logging roads is reducing the relevance of Tubau, what, if anything, will take the place of Tubau as a central node of communication among local people? Where will exchanges happen, how will negotiations happen?

Reflection

It seems that the transitions going on in the watershed are having a large impact on the basic network of communication in the watershed. The current situation is one of high diversity, high multilingualism, and perhaps high levels of trust and cooperation, if the communication networks have created social capital. Or perhaps the causal relationship is the reverse? At the same time, the concurrent appearance of multi-ethnic longhouses composed of primarily older people and young children creates complex forces of change within the individuals' language repertoire. A more detailed picture of multilingualism, at both longhouse and river-system scales, will provide insights on the nature of local social relations. Key to understanding these issues is a deeper grasp of the fundamental changes underway in the socio-economic landscape of the river-system. If there is a reorientation of economic activity from the river to newer roads, there should be concurrent impacts on the structure and processes of interaction that make up the social fabric of this area. Furthermore, there is an urgent need to begin to articulate a socio-economic history of the Kemena-Jelalong river, setting the baseline for assessing the types of changes under way to underpin the various facets of research to be done in the project.

Keywords for developing a detailed research framework: multilingualism, code-switching, social networks, demographic change, resource governance

This article is reprinted from the 2nd issue of Japanese newsletter of this project

Wildlife and natural mineral licks inside production forest : a study in Anap Muput Forest Management Unit and Sarawak Planted Forest in Bintulu

Jason Hon (Graduate School of Global Environmental Studies / Laboratory of Landscape Ecology and Planning, Kyoto University)

Introduction

Trudging through old logged over forest in Coupe 4, my assistant and I walked along Malat River and arrived at a natural mineral lick, situated about five metres from the riverbank. This natural mineral lick, which we conveniently called 'salt lick' was filled with tracks of animals. Judging from the fresh signs after rain the previous night, bearded pigs were already here early in the morning before we arrived. Signs included footprints on the soft soil, easily identifiable from the deep imprints of the hooves and metacarpals, and burrows of the earth, destructively left behind after their feeding activity.

These are signs indicating that wildlife species such as bearded pig do visit salt licks in the forest. As part of my study, I set up automatic trigger cameras here, equipped with infra-red motion sensor that automatically triggers the digital camera to capture images or videos, which are then stored inside the memory cards. The cameras were left to 'work' for 30-40 days since they were last switched on, capturing images and videos of animal passing in front of the point-of-view, an area within the range of the infra-red sensor. On my subsequent visits, the memory cards were replaced and the cameras were reset, only to be revisited 30-40 days later. Back at the base camp at Sekawie, after the data from the memory cards were uploaded, I could finally confirm the presence of bearded pig. One of the images showed a bearded pig at the salt lick that morning!

Since August 2010, camera trapping exercises have been carried out, not at one but three salt lick sites in Anap Muput Forest Management Unit (AMFMU).

Wildlife and salt licks

One of the major queries I received was why I conduct



From top to left:
A bearded pig captured on camera trap; salt lick inside AMFMU;
installing camera trap

study on wildlife and salt licks? Also, I received endless queries on why I have decided to engage with logging companies? After all, many would have thought that these two components seem an unlikely match. If this is the case and since I have chosen to conduct my research in a logging concession and forest plantation areas, I have an important role as a ‘matchmaker’ to help bring conservation and logging into ‘marriage’.

In AMFMU, the company involved may already have conservation activities in place, as prescribed for in the forest management plan. Nevertheless, it is envisaged that this study can assist in improving their knowledge base, so proper management measures can be shared and implemented. After all, only about 11% of the 4.39 million hectares of Permanent Forest Estates (<http://www.forestry.sarawak.gov.my/forweb/sfm/pfe.htm>) in Sarawak are classified as Totally Protected Areas, leaving the remaining bulk of 89% in Communal Reserves and Forest Reserves, of which the latter dominates. Forest Reserves are areas set aside for timber production. Therefore, the roles of timber concession forests which

lie within these Forest Reserves are equally crucial towards wildlife conservation, because they occupy large tracts of forests left in Sarawak. In many cases, substantial population of wildlife occur inside these forests. Hence, we need to put considerable attention to these forests also if long-term wildlife conservation is to remain significant.

Within a timber concession area, wildlife uses various types of habitat to survive. Among these important features is the salt lick, a naturally mineral deposited area where animals visit periodically for mineral uptake. Plants in tropical forests have very poor mineral contents. Herbivores notably, depend on other sources for their nutrient uptake, of which salt lick is one of them. Despite the importance of salt licks to wildlife, as already documented in a study in Sabah (Matsubayashi *et al.*, 2007), there is no study ever conducted in Sarawak. Timber company managers do not have any information on the scale of use of salt licks by wildlife inside their concession areas. One of the criteria of sustainable forest management is the need to conserve important habitat for wildlife, and salt lick is considered one of them. However, there is no data to assist timber managers in their forest harvesting plan and there is no clear guideline on how wide an area surrounding a salt lick must be protected from any logging activities, including building of skid trails.

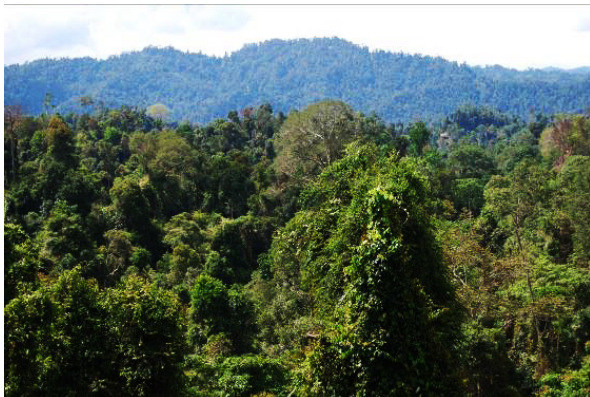
Literature reviews

The distribution of some mammal species appear to be determined by the distribution of natural salt licks (Stark, 1986; Payne and Andau 1991; Chanard *et al.*, 1998; Laidlaw *et al.*, 2000; Matsubayashi *et al.*, 2007); and to some extent affecting movements and home ranges (Pages *et al.*, 2005). In other studies, use of salt licks have been shown to supplement poor diet uptake by wildlife (Holdo *et al.*, 2000; Matsubayashi *et al.*, 2007); as supplementary dietary needs and to alleviate ailments (Mahaney *et al.*, 1993; Mahaney *et al.*, 1995a; Klaus *et al.*, 1998; Diamond *et al.*, 1999; Krishnamani & Mahaney, 2000); to absorb toxins and alkaloids from

plant materials (Mahaney *et al.*, 1995b; de Souza *et al.*, 2002; Symes *et al.*, 2006); or to alter food properties for easier digestions (Mahaney *et al.*, 1995a; Diamond *et al.*, 1999). Many of these studies were carried out elsewhere, and information from Borneo remains very limited. A study in Deramakot Forest Reserves in Sabah indicated that more than 78% of known species that occurs in the reserve were recorded to have visited salt licks for their nutrients uptake, especially herbivores and frugivores which require sodium from naturally available resources such as salt licks, but are lacking in plants (Matsubayashi *et al.* 2007).

Logging history of AMFMU

Zedtee co ltd. (Zedtee) started operation in AMFMU in 1989, from Coupe 6 onwards. It took over operation from Dunia Forest, another timber company. There are 25 coupes inside AMFMU, with one coupe harvested per year over a 25-year harvesting cycle. Second cycle harvesting started in year 2000, from Coupe 1 onwards



Can forests in logging concession areas support viable population of wildlife?

again. In the early phase from 1989, conventional logging method was used. In 1993, path logging method was engaged under the Model Forest Management Area initiative by ITTO, starting from the present Coupe 15. Reduced Impact Logging (RIL) method was introduced in 2007 when Zedtee underwent Sustainable Forest Management (SFM) certification exercise. In 2009, Zedtee obtained the License for Planted Forest (LPF) which set for transformation of Coupes 1-4 into planted areas for native trees, acacia, albizzia and oil palm. These coupes have been renamed as Blocks A – G¹.

Methodology and site description

AMFMU covers an area of over 83,500 hectares, made up primarily of dipterocarp species at elevation of less than 400 metres, hereby classified as lowland mixed hill dipterocarp forests.

Three sites within different management regimes and also containing salt licks were selected for this study. They were Malat in Coupe 4 (logged in 2003), Sebedi in Coupe 1 (logged in 2005) and Coupe_11 (logged in 2010). Automatic trigger cameras also known as camera traps (Bushnell Trophy Cam; Marif FieldNote) were placed at salt licks, and thereafter at 200 metres intervals up to a distance of 2000 metres. All three salt licks in Sebedi, Malat and Coupe_11 lie beside a stream. Distance from the edge of stream is taken as control for all camera trapping points.

Preliminary results and discussions

From August 2010 to January 2011, the total survey effort was 4,441 camera-trap-days. A total of 27 species of large ground dwelling birds and terrestrial mammals were positively identified. Some species were difficult to identify from camera trap images or videos, such as mousedeer (*Tragulus kanchil* and *T. napu*) and muntjacs (*Muntiacus antherodes* and *M. muntjak*).

Muntjacs, sambar (*Rusa unicolor*), bearded pig (*Sus barbatus*) and pig-tailed macaque (*Macaca nemestrina*)

¹Block F is situated in Coupe 25, and forms part of the LPF areas.



What must be done to promote wildlife conservation?

were the most recorded species in AMFMU. The number of species recorded from Malat is highest of the three zones, with 22 species. It also contains a high number of carnivores (i.e. 7 species), similar with Sebedi. Of the three zones, Coupe_11, a recently logged site, records the lowest number of species.

There were some levels of hunting activities recorded in all three zones, and hunting dogs were present in Malat and Sebedi as they were captured by the camera traps. In Malat, up to five dogs were recorded at one time in one of the trapping points. The close proximity of human settlements and the presence of good road networks in Malat and Sebedi mean the salt licks here are more accessible to local people, who hunt with dogs. The encounter rates for large ungulates such as sambar, bearded pig and muntjacs were low in Malat and Sebedi as compared to Coupe_11. The salt lick in Coupe_11 is less accessible to people, although signs of hunting were

present but on lesser intensity. According to the laws, hunting by outsiders and camp workers is prohibited. Zedtee has set up security gates to prevent any illegal activities from occurring. Only the local communities living inside AMFMU are permitted to hunt for their personal consumption.

The different management regimes of AMFMU in relations to time since last logging activities have shown notable effects on wildlife communities. In zones where logging was carried out more than five years before (in between 2003 and 2005), species diversity was higher as compared to recently logged zones (logged in 2010). Eight carnivores, species on top of the food chain, were recorded in Sebedi and Malat, as compared to only five in Coupe_11. Other significant findings included Sunda clouded leopard (*Neofelis diardi*) and leopard cat (*Prionailurus bengalensis*) which were recorded from Sebedi, and bay cat (*Pardofelis badia*) and marbled cat (*Pardofelis marmorata*) in Malat, both old logged over forests.

In terms of globally significant species, AMFMU supports at least two species classified as endangered i.e. pangolin (*Manis javanica*) and bay cat, and another eight species (pig tailed macaque, sunbear (*Helarctos malayanus*), binturong (*Artictis binturong*), banded palm civet (*Hemigalus derbyanus*), sunda clouded leopard, marbled cat, bearded pig and Bulwer's pheasant (*Lophura bulweri*) classified as vulnerable according to the IUCN



Camera trap is attached to a tree

redlist of threatened species (IUCN 2010).

The presence of globally significant species inside AMFMU indicates that logging concession area where sustainable forest management is in place, may be able to support and sustain populations of wildlife. AMFMU formed part of the ITTO Model Forest Management Area that was implemented in Sarawak from 1993-2006, had undergone timber certification exercise in 2004, and successfully obtained certification in 2007. Local awareness is key towards conservation of wildlife, through promotion of reduced and sustainable hunting methods. However, long-term monitoring is essential and must be put in place to gauge the effectiveness of these measures in relations to the status of wildlife. If left unchecked, over hunting by the local people, either for personal consumption or illegal trade, will eventually defeat the purpose of wildlife conservation initiatives in



Sarawak Planted Forest acacia plantation

sustainable forest management sites.

The study in AMFMU enters its second phase in 2011. The species list generated to date is inconclusive as the data were collected at the onset of wetter months. Rainfalls were higher in the months of October to January/February. Survey effort will be increased as more surveys are planned to incorporate the drier months, so that a one-year analysis can be carried out. Since May 2011, more camera trapping activities were carried out. In addition to the salt lick sites, camera traps were also set-up in eight other sites all over AMFMU (this component of study is jointly undertaken by Hiromitsu Samejima). Social surveys to determine hunting patterns

and diet of local people is planned towards second half of 2011. Nutrient analyses of water samples from salt lick sites will also be carried out. In May 2011, the survey has been extended to an adjacent production forest, an acacia plantation managed by the Sarawak Planted Forest (SPF) project. Here, camera traps were set up at a salt lick site. In the future, more sites at SPF will be surveyed so that comparison can be made between a logging concession and a planted forest.

Acknowledgement

This study is also supported by the Kyoto University Graduate School of Global Environmental Studies (Laboratory of Landscape Ecology and Planning) and Environmental Management Leadership Programme.

This article is reprinted from the 5th issue of Japanese newsletter of this project

General flowering and fruiting in Kemena and Tatau River areas

Hiromitsu Samejima (Center for Southeast Asian studies, Kyoto University)

Most of lowland and hill area of Borneo are covered by Mixed Dipterocarp Forest (MDF), in which large trees of Dipterocarpaceae (ex. *Shorea*, *Dipterocarpus* and *Dryobalanops* spp.) dominates the canopy layer. In these forests, trees don't flower and fruit every year. Once every one to five years, various taxa of trees synchronously blossom and fructify. These phenomenon are called as "general flowering" and "general fruiting" (Sakai *et al.*, 1999). During the period of general flowering, the swarm of giant honey bees (*Apis dorsta*) appears and followed by the pack of wild boars in the time of general fruiting. Both species come and go enjoying the blessing of the nature and during this period of time, local people collect honey, catch wild boars and gather Illipe nut (fruit of "Engkabang": *Shorea stenoptera* and several other species for food oil. During this period, collecting honey or gathering Illipe nuts are no longer common activity of locals, while wild boars are still their important source of protein. Many villagers well remember when wild boar was extremely abundant in recent years.

This general flowering and fruiting is considered to be triggered by dried condition (Sakai *et al.*, 2006). When precipitation was low for a certain amount of period (more or less one month?), most of trees in the area begin to bloom and produce fruit synchronically. The special extent of this phenomenon is sometimes limited only in a valley area but when it occurs in grand scale, it occurs from Malay Peninsula to whole Borneo.

During this joint-research, intensively inquired in each village we visited that when was the last time did they witness many wild boars. Because massive general flowering and fruiting were known to occur twice in 2009 which covered western Kalimantan, whole area of Sarawak, and the west coast of Sabah, I had presumed



that in this confined geographical area¹, the answers would coincide with this period of general flowering and fruiting. However, the answers were different among each area (figure-1). This unevenness could be explained in the following two presumptions:

- 1 The start of the dry period varied from region to region, so was the period of general flowering.
- 2 The difference of location situations like, plantations both acacia or oil palm and swampy forests made different landscape compositions.

I would like to reveal many details of this issue with my future research.

The fruit of "Engkabang" is a well-known non-timber forest products (NTFP) in Borneo which is exported even today. Along the Baram River areas, where I had been working on, many Engkabang trees, planted in the past still can be seen. The business, however, had already been outdated. But in a village of the Anap River, I was informed people still collect Engkabang fruit and a Chinese trader in Sangan town buy them, although many villagers are complaining over its low trading price. During my visit, I was also informed about an Iban man who still collects wild honey of giant bee. I expect these persons possess certain amount of information of the history of general flowering and fruiting in the area and the geographical pattern of the event. I am planning to make a contact with them in future.

¹ There is only approximately 10,000km² in total of Sebauh subdistrict and Tatau District this is nearly equal size of both Kemena and Tatau River areas.

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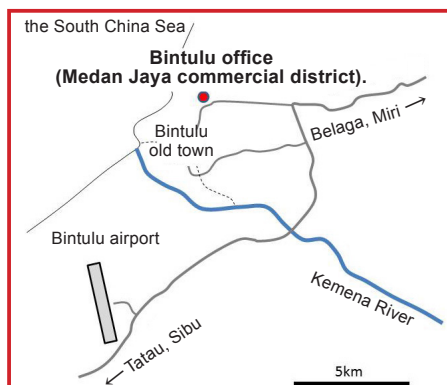
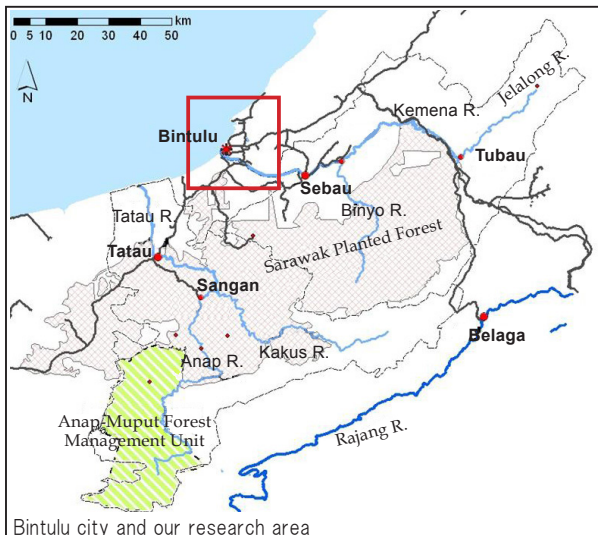
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This article is reprinted from the 2nd issue of Japanese newsletter of this project

Launch Announcement of Bintulu Office

Hirimitsu Samejima,
Center for Southeast Asian Studies, Kyoto
University

Our project launched a field station “Bintulu office” at Medan Jaya, Bintulu city at the end of 2010. Bintulu is in the middle of our research area. The city has been rapidly developing as an export port of natural gas, founded in 1969. The population of the city is about 200,000. The city is one hour from Kuching, one hour and 15 minute from Kota Kinabalu and two hours and 10 minute from Kuala Lumpur by air. Bintulu is also connected with Miri, Sibu and Kuching by bus. Our office has best access to transportation system in the city, it locates in front of a long-distance bus station of Bintulu and only 30 minute from airport by car.



This office increased feasibility of our research activity and made possible to conduct long-term study. It has refrigerator, freezer and dryer for collected samples. We can use the office to do basic sample processing and to store samples. Our office also has meeting desk and white-board for discussion and small workshop. We are planning to collect many references about our research area in the office in the future. This office will be used not only by our project members, but also by collaborative researchers such as from University of Malaysia Sarawak.

Finally I would like to express heartfelt appreciation to Mr Jason Hon (Graduate School of Global Environmental Studies, Kyoto University) who helped to choose the place of office, negotiate with the owner and set the instruments for the office and Ms Sonoko Tanaka who conducted the complex accounting procedures.



(above):
Our office is on the floor above “Chao Yang Cafe”



(left):
Inside of the office

Facilities:
Internet access, Writing desks, Printer and Scanner, Meeting desk and whiteboard, Sink, Refrigerator, Freezer, Dryer

Address

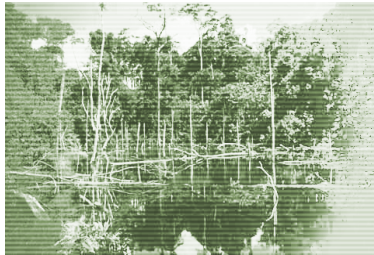
Lot 3672-2-9 Block31, Kemena Land District,
97000 Bintulu, Sarawak

Events and Activities

“Some aspects of forestry in Sarawak in 70s” by Dr. Lee Hua Seng

November 17, 2010 at CSEAS, Kyoto University

In 1970, when he finished his study of forestry in The Australian National University, Dr. Lee Hua Seng got a position in the Sarawak Forest Department and was immediately transferred to a logging camp located in deep



Lecture Meeting by
Dr. Lee Hua Seng (Chairman: Sarawak Timber Association)
“Some aspects of forestry in Sarawak in the seventies”

In this lecture, Dr. Lee will share his memory with us of the life in the forests of Sarawak, where he has a long experience as a forester.
The role of Sarawak Forest Department to the transition of the forests will also be mentioned.

Date : 17(Wed.), November 2010 15:30 ~ 17:00
Venue : Inamori Foundation Memorial Building Kyoto University

This work is supported by JSPS KAKENHI 810104300001
Grant-in-Aid for Scientific Research(S)
“Planted Forests in Equatorial Southeast Asia: Human-nature Interactions in High Biomass Society” headed by Noboru Ishikawa

inland of Bintulu District. According to Dr. Lee, there was no paperwork on job contract back in those days. This rash job assignment tells us well that it was an urgent matter in Sarawak at that time to develop forestry in accordance with the increase of global demand for the tropical lumber.

As a Forest Inventory Officer, among eight districts in Sarawak, Dr. Lee was in charge of Anap area of Bintulu district and Kakus area of Tatau district. As those are the principal research spots of our project, we asked Dr. Lee to come and share his story regarding the forestry policy in Sarawak in 1970s and regional situations of Bintulu area at that time. In 1970s, local economy was heavily relied on forest resources and both logging and lumber-producing played a crucial role in lumbering industry. For that matter, the productions of block board, plywood, wood furniture, wood plate, wooden dowel (small woodblock used to joint lumbers), laminated board, wood chips, jelutong, and nipah products (for the production of sugar or alcohol) were in bloom in Sarawak. There were other forest products such as illipe nuts of engkabang trees, rattan, dammar resin, and edible bird’s nest as well.

Allegedly at the beginning of 1970s, Sarawak Forest Department and Food and Agriculture Organization conducted a joint research on forest resources of inland area and plans were built for the development of lumber industry in Sarawak based on the result of the research.

Dr. Lee illustrated the backgrounds and situations at the time in Sarawak first, then gave us with the detailed descriptions of the ups and downs of the local lumbering industries in 1970s, the climate of timber import business by the Japanese, the foundation of Sarawak Timber Industry Development Cooperation, the influence of the oil crisis, and the timber industry trend in Sabah.

Dr. Lee shared us with interesting episodes, based on his personal experience as the member of the Forest Department: a dispute of shifting cultivation by indigenous people, a problem of labor shortage in the Sarawak Forest Department in accordance with the rapid growth in timber industry in Sarawak in the late 1970s.

In addition to the business climate of timber industry inland area, we asked Dr. Lee to tell us the logging activities in the peat land in lowland areas and its historical backgrounds. The forest in peat land areas were abundant in full of vegetation and according to Dr. Lee, commercial logging had begun in late of 1940s in the coastal area mainly because of its easy access and rich vegetation of high-priced trees such as meranti and ramin.

Dr. Lee’s lecture was quite intriguing as it took an overall view of global market, at the same time; his story was full of hands-on experience and details



Photo: Hideki Nakane

which included a collection of his personal photos.

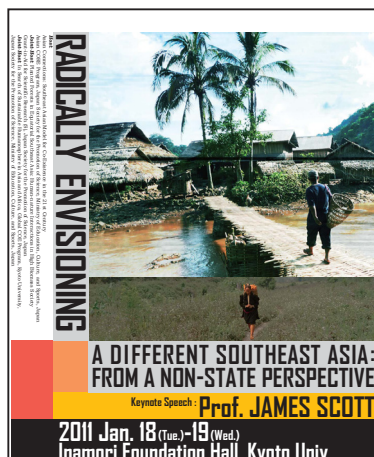
For 40 years Dr. Lee has been involved in the forestry in Sarawak. During those years he had been played the role of gateway in both Sarawak Forest Department and Sarawak Timber Association and committed to accept Japanese researchers. Dr. Lee has always been supportive to us and he himself had never stopped pursuing his academic life and in 1997, he completed his doctorates in Japan. Because of his knowledge and experience as an academic, we found Dr. Lee's lecture was quite inspiring and convincing and full of suggestions.

(written by Ryoji Soda)

**International Seminar:
"Radically Envisioning a Different Southeast Asia: From a Non-State Perspective"**

January 18, 19 2011 at CSEAS, Kyoto University

On the January 18-19 2010, our Kiban (S) Project co-sponsored an international seminar entitled "Radically Envisioning a Different Southeast Asia: From a Non-State Perspective". We welcomed



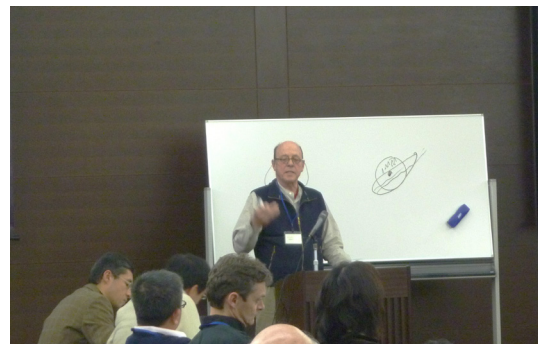
Professor James Scott from Yale University and other renowned Southeast Asianists to the Center for Southeast Asian Studies, Kyoto University to participate in two-day seminar.

The central question of this seminar was to ask to what extent can Southeast Asia be re-conceptualized, researched, and rewritten, if we considered non-state-centered perspectives and as such all participants joined in a discussion on these perspectives in the region and engaged in James Scott's most recent work *The Art of Not Being Governed* (2010). A cursory glance at ethnographies concerning social formations in the region highlights how the nation-state-centered perspective has long generated a discussion on center-periphery dichotomies.

To engage in how the theoretical idea of Zomia (non-state periphery) plays out in Southeast Asia, the seminar explored different empirical case studies, with the aim of further refining and improving our understanding of Southeast Asian societies. The principle undertaking was to set out to correct the distortion imposed upon the past and present by re-reading the history of people without a history by critically examining state-centered historiography and ethnographic works on non-state space such as borderland and maritime frontier. It is in this context that James Scott, the keynote speaker presents his thoughts on how this re-reading can critically allow us to explore new avenues in relations between various actors and tease out the nuances that exist in state and non-state spaces.

The discussion of the seminar was closely related to Kiban (S) project on riverine society where rivers function as liaison between state space (downriver) and non-state space (upriver). The members of our Kiban (S) project also participated in the seminar and joined in the deliberative discussion.

(written by Noboru Ishikawa)



Prof. Scott made his keynote lecture.

Photo: Ryoji Soda



Photo: Ryoji Soda

The List of Project Members

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