

Local (Agro) Ecological Knowledge of Jangkat (A note from the field)

[Pengetahuan Ekologi Masyarakat Jangkat (Catatan dari Lapangan)]

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ABSTRAK. Jangkat adalah salah satu masyarakat tradisional yang menghuni daerah di pinggiran kawasan Taman Nasional Kerinci Seblat. Masyarakat Jangkat masih memegang erat adat istiadat setempat serta menerapkannya dalam kehidupan sehari-hari. Melalui pengamatan yang mendalam dan terus menerus mengenai dinamika ekologi setempat, akhirnya masyarakat Jangkat mengembangkan teknik pertanian yang sesuai dengan kondisi alam dan sosial budaya setempat. Dalam penerapannya, pengetahuan lokal ini dilembagakan ke dalam lembaga adat setempat sehingga menghasilkan pendekatan pengelolaan sumberdaya alam yang tidak hanya berkelanjutan, tetapi juga memberikan kesejahteraan bagi masyarakat setempat.

Kata Kunci: Jangkat, masyarakat lokal, pengetahuan ekologi lokal, Taman Nasional Kerinci Seblat

ABSTRACT. Jangkat is an indigenous group who inhabits a region bordering with the Kerinci Seblat National Park. The group still strongly attaches with their tradition and implements traditional values in their daily lives. The Jangkat have developed local ecological knowledge by observing local ecological dynamics intensely over generations. The knowledge is implemented in local agricultural practices that fit with local socio-cultural and natural condition. Latter on, the agro-ecological knowledge is incorporates into local customary institution (*adat*) and comes out with a sustainable natural resource management model and improves the lives of the Jangkat people.

Key word: Jangkat, indigenous group, local ecological knowledge, Kerinci Seblat National Park

Jangkat is a sub district in the southwestern of Jambi Province, Sumatra, Indonesia. The region is 1500 to 2000 m of altitude and surrounded by *Masurai* (2935 m) and *Sumbing* (2507 m) mountains. Jangkat consists of 22 villages that mostly border with Sumatra tropical rainforests. Most of the villages had been relatively isolated from the neighboring community for centuries. Local people have adjusted with the given natural resources to keep alive in this remote area. Erwin Fahmi¹ argues that the Jangkat remoteness creates local people's resilience in adopting any kinds of introduced knowledge and values.

Wetland rice farming and cinnamon agroforest (*Cinnamomum burmanii*) are the backbone of Jangkat's economy. However, in the last two decades the price of cinnamon has dropped

significantly. In most villages, the role of cinnamon has been gradually taken over by potato and other growing horticultural crops. Cinnamon and horticultural crops are planted mainly for cash, whereas rice is for subsistence purpose for the most. It is common that a farmer borrows a number of rice from another farmer to meet family needs, especially during food scarce periods. Rice is not only the local staple food but also has an essential social role in tightening social networking among the local people.

Observing the local ecosystem dynamics over times, people of *Jangkat* have developed a traditional farming system that ecologically sounds and meets the local condition. The local customary system (*adat*) guides the implementation of the farming system. One who violates the *adat* rules will be charged a number of fines. The most common fine is *beras 20 (gantang) ayam seekor* (20 *gantang*² rice and a

¹ Personal Communication with Dr. Erwin Fahmi (2004). He wrote a diisertation entitled *Pengaturan dan Pengurusan Sendiri-sendiri di Desa Pulau Tengah, Jambi, dan Kontribusinya bagi Administrasi Publik*. Published by the University of Indonesia, Depok, 2002.

² *Gantang* is a metal container commonly used to contain and/or to deliver food. Villagers also use this utensil to

goat). Moreover, those who violate the local law will also be socially isolated from the entire community. The people's strong attachment to the local customary system and values has ascertained the implementation of the traditional farming system over generations.

Both men and women involves in working on rice farming. The schedule associated with rice planting activities is developed by referring to Islamic calendar (based on lunar cycle). Rice is planted at the end of *Zulhijah* Month (the 12th months of Islamic calendar). A local customary leader usually decides schedule for rice planting and announces it in the local mosque, usually after weekly Friday prayer. As a result of this direction, most rice crops grow throughout the region are always at the same age.

With regard that the region is mostly surrounded by forested areas, wild animals such as wild boar and sparrow are the major pest for rice crops. Occasionally, the boars come in a big numbers and destroy the crops severely. Local people are aware about the risks of doing farming in areas that directly bordering with the forests. Effort to maintain the uniformity of rice planting schedule is a way to minimize the rice farming risks.

Water is an essential input for wetland rice farming. Water from local streams is quite abundance throughout the year to meet the needs of rice. The people of Jangkat develop some traditional techniques to irrigate the rice fields such as traditional waterwheel. Interestingly, the people are concern about the importance of protecting water catchments areas. Learning from experience of flooding that immersed local rice fields several decades ago, the people then established customary forests to protect the catchments area as well as to assure the sustainability of water supply in the local streams. Importantly, the protected forest that is still well maintained not only protects the stream but also conserves local biodiversity and produces timber and non timber forest products such as rattan, palm sugar, and medicinal plants. This traditional protected forest is under controlled and managed by the local customary institution.

The local people grow some rice traditional varieties that have been planted for over generations such as *padi cempaka kuning* and

padi udang. It takes about eight months to harvest the rice. The harvested grains are stored in a traditional storage, mostly in the middle of rice fields. This traditional rice barn is specifically designed to not allowing pests, especially rat, to come into the barn.

After harvesting, rice fields are fallowed for three to four months. During this fallowed period, local people release their livestock including cow and horse, to graze on the fields. Although the animals increase the top soils density, the amount of manure produced by the animals over the course of the fallowed period is enough to recover soil nutrients thus maintain the soil fertility. This traditional farming system neither needs additional chemical fertilizer nor chemical pesticide. This practice indicates that people of Jangkat have performed organic agriculture long time before this eco-farming widely practiced in some developed countries.

During the fallowed period, local people temporary leave their farm and spend most of their time for some socio cultural events such as electing customary leaders, reviewing customary law, renovating public facilities, celebrating religious festivals, and preparing mass customary wedding. The Jangkat traditional farming system allows the local people to maintain a harmonic relationship between the people, the nature, and the culture that in the long run assure not only the sustainability of local farming but also the sustainability of Jangkat community.

measure rice and other grains. The *gantang* is widely accepted as a local measurement unit. A *gantang* is roughly equal to 2.5 kg of rice.

