

ASIA LINK PROJECT
*“New Educational Tools for Sustainable Management of Peatland in the Humid
Tropics” (PEATWISE)*

**NATURAL SIGNS AND ITS MEANING
FOR DAYAKNESS LIFE
IN CENTRAL KALIMANTAN**

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PREFACE

This report as a part of the history of the shifting cultivation ("*ladang*") system that has been writing with the title "SHIFTING CULTIVATION SYSTEM IN CENTRAL KALIMANTAN : HISTORIES AND PROSPECT". The topic is a special to dig about natural signs and its relationship on the successful the Dayak people for managing their agriculture with the purpose is to complete a modul of Human Dimension in Asia Link Project : "***New Educational Tools for Sustainable Management of Peatland in the Humid Tropics (PEATWISE)***", through the collaboration between Wageningen University, Leicester University, UNIMAS and Palangka Raya University. Important to explain that the local knowledge which is related with the season and successful of shifting cultivation (rice field) is still unlisted, but many of Dayak people had known by the generation to generation.

The natural signs topic has collected by the interview method with the Dayak prominent in the village. This topic is very relevant with the purpose of the collaboration topic and very important to know by the communities in this decade. The real example for the local knowledge that the Dayak people had never to cultivate of deep peat layer for agriculture and plantation, because they had known will be arising many problems.

This report is still un-capable for visualized part of the natural components which had listed, because need the fixed time, because the appearance of the natural signs are unscheduled. Therefore, several of animals and vegetation were listed among the double question marks are still in Dayak language, because need time for identification and must be confirmed with other prominent for completing this report. Nevertheless, a part of the natural signs that had explained already proven and able to give guideline for Dayak people to know what and where they must establish their rice filed, and what will be happen in the next future.

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I. INTRODUCTION

11. Background

Everything that had created by the Lord in the earth especially flora and fauna generally had have each functions, both in the same creatures and different. In the beginning the human have just rely on the creature behavior to determine time, kind of disaster which will be fall on to the human, and the activities that have related with kind of activity and place, because they had believe on the relationship between its factors. For example, some of animals are useful for human to know the time. If the insect "**Sagagiling**" make a sound, so the time is six o'clock at noon. If the chickens have crowed in midnight, so the time is twelve o'clock. Through the two examples above those are easier for proven, that the natural signs which will be explain have a truth that could be responsible for.

Before science and technology were developing right now, the Dayak people had always use the natural sign to determine where and when the good time and good place for them to establish their rice field. If prediction based on the natural sign will be occurred flood, so they must establish their rice field at the upland or hill areas. Based on knowledge that had be valid by the generation to know are middle and big flooded will be occur, short and long dry season, the Dayak people could know through the position of the moon in the sky, and certainly behavior of flora and fauna. The natural sign also could be give guidance the kind of disasters. All of its signs that had relied on as guidance already proved and certainly occurred, especially in Central Kalimantan.

According to several prominent who had known and use of the natural sign, part of the natural sign have 100 % occurred and proven. This local knowledge has appeared already forgotten by present generation, perhaps caused by changing of livelihood from rice field to the timber and mine materials. In the other side, perhaps the human in this time had forgotten that the science and high technology which are precisely come from nature.

12. Goal

- a. To remember of the local knowledge that has relationship with the nature components this is able as guidance for human in implementing their activities.
- b. To show for everybody that are of the nature component, respectively could be give guidance and warning for human.

2. NATURAL SIGNS

Several kinds of the natural sign will explain have already observed, analyzed and confirmed with the nature disaster and/or production of agriculture of Dayak people. Therefore, its natural sign have not knowing directly without proven, but through the process and authentication.

21. The Natural Sign Related with Season

211. The moon position

- a. If the first time appearance of the moon look out to the west and turned to the south, so will occur the dry season.
- b. If the moon turned to the north, so will be occur flooded but it is not so high.
- c. If the first time appearance of the moon look out to the west without return to another position, so will be occur big flooded

212. The moon in red circle ("**bulan hapayung**")

- a. If color between the moon and red circle is turbid, so the flooded will be occur.
- b. If color between the moon and red circle is clear, so the dry season will be occur.

213. The star position

To determine a schedule for starting establishment of rice field, the Dayak people waiting appearance of the three star in one line (called "bintang *patendu*") they can not start before the "*bintang patendu*" appear in the sky and commonly on July

214. Vegetation

Generally the vegetation species which will give guidance for flooded and dry season are the mushroom.

- a. If "***Bantilung***" and "***Kalaliat***" mushrooms much growing, so the possibility for occurring heavy rain and big flooded. "***Bantilung***" growing on January to March and indicate by "***buhei***" insect in the bottom.
- b. If "***Kulat Danum***" mushroom that has growth at the trees stump in the slope of riverbank that will be give guidance, as follows :
 - b1. If growth near the top of trees stump so that will be occurring flooded that will able to achieve the mushrooms position.
 - b2. If mushroom growth near the land surface at the trees stump, so will be occurring the long dry season.
- c. If the rubber tree have started for budding, so that the rain will be coming soon.
- d. if some of fruits have started for blossom, so that the rain will be coming in 10 to 15 days.
- e. If new root growing in the river bank in the dry season, the flooded must be achieve this rood

214. Animals

Several of fauna species that can be believed as a guidance for occurring dry and rainy season as follows :

a. Insect

Species of insect have known that are : "***Sangkalap danum***", "***Sansibur***" and "***Garinang Danum***".

- a1. If "***Sangkalap danum***" insect is changing of skin ("***nyalumu***") in mass manner, so the possibility for occurring the dry season becoming higher.
- a2. If "***Sansibur***" and "***Garinang danum***" insects had changes their skin, so will be occurring middle flooded and covered sand spread in the river.

b. Bird

One of bird species that could give accurate guidance is "***Kangkang kangkot***" birds.

- b1. If its bird has made nest very low near the water surface so will be occur a long dry season.
- b2. If its bird has made a nest in high position, so will be occur big flooded and heavy rain.
- c. If several kind of fishes have being in lay egg stage, so the rain will be coming soon. The kind of fish are : gabus (*Chana striata*), papuyu (*Anabas testudineus*).
- d. If the black ant moving and bring out their eggs from the ground of soil, so that the rain or flooded will be coming soon.
- e. If "***Haruei***" bird crowed in the end of rainy season, so that will be occur longer dry season.

22. Natural Sign on the Guidance of Successful and Safety ("**tanda keberuntungan**" or "**dahiangan**")

221. Animals

The sign by several kinds of animals can be hear when we walk in the jungle to the candidate of rice field or hunting activities. The sound of animals must be hear as a sign are : **Iram bird, Bakutuk bird, Buas bird, Salehei bird, Elang bird**, Deer, Venison, **Ular sawah, Depung**, dan Ants black (**Sansaman**). If **Iram** and **Bakutuk** birds are laughed, so the meaning is good condition.

- a. If kinds of lucky birds ("**tanda keberuntungan**" or "**dahiangan**") make a sound in the left position in front of us, then come to us, so will be occur disaster or not good situation. But, if the birds make a sound in the right and front of us, will be give guidance for our mission will be becoming successful.
- b. If the hawk birds make a sound in the left position, the meaning is very bad. The same meaning, if those birds make a sound in our backside in left position, then flying behind.
- c. If "bubut" bird flying across of us from the right position to the left, generally will be occur accident
- d. If the snake arouse in front of us from the right position to the left generally will be occur accident

222. Vegetation

If the dead tress ("**Pungu**") fall down or bough fall in the left of our position, so the meaning is very bad.

The same sign if the dead tress ("**Pungu**") falls down in the behind and left of our position the meaning is very bad for family who stay in the village.

1. If the rubber tree have started for budding, so that the rain will be coming soon.
2. If some of fruits have started for blossom, so that the rain will be coming in 10 to 15 days.

23. Rain and Flooded as a Natural sign to know

231. Rain

The Dayak people had knowledge on the two types of rain during the dry season, that are : "**ujan kambing bua**" and "**ujan malapai kandang bua**".

- (1). "**ujan kambing bua**" is a small rain on the middle of dry season and commonly in August. Whereas the "**ujan malapai kandang bua**" is the rain most heavy than the first rain and commonly occur 2-3 weeks before the end of dry season. The name of dry season after "**ujan malapai kandang bua**" was mentioned "**pandang pakeang tundun**" with the period 2-3 weeks.

232. Flooded

During the rice field period always three times cured the flooded, that are :

- (1) "**Kakis Gelang Batu**" flooded this flooded acceded when the lead clearing conducted by the farmer.
 - Generally the flooded must cover of the land, but not in the kill area.
 - If the "flooded has accrued in small scale, so that the next year will be occur, big flooded.
- (2) "**Paleteng parel**" flooded. This flooded occur when the rice in nature please
- (3) "**Karak Karayan**" flooded. This flooded occurred after all of activities in the rice field finish and flooded cover of the areas

233. Shrubs ("**Bahu Lambung**")

Shrubs are a land that has opened for ladang and re-opened 1-3 years after. This land indicated by size of young tree about 5-7 cm diameter. Better for rice field if many growth by species bellow :

- a. Kalanduyung (*Mallotus* sp)
- b. Kalamambung
- c. Kajalumpang
- d. Kangkawang Hapas
- e. Kandarihau
- f. Katupak
- g. Langise
- h. Kararuman
- i. Kamasulam
- j. Tulang Mandipe
- k. Tambarangin
- l. Rambangun
- m. Mawin

24. The natural sign that have related with land feasibility for rice field

Several tress species that had growth in the land could be use by Dayak people as an indicator of the soil fertility or for successful of rice field ("**Ladang**").

2431. Primary Forest ("**Himba**")

Primary forest is a land with forest never exploited and indicated by many tress in big diameter and high population. Better for rice field if many growth by species bellow :

- Ulin (*Eusideroxylon zwagerii*)
- Doho atau Banuas (*Shorea obcsura*)
- Maharun
- Tengkawang (*Shorea Pinanga*)
- Kuru Muku
- Pantung
- Kalapih

242. Secondary forest ("**Bahu Baliang**")

Secondary forest is a land that has exploited on rice field farmer and indicated by diameter of tress almost similar about 20-30 cm. Better for rice field if many growth by species bellow :

- a. Bayur
- b. Kanuang
- c. Tawe
- d. Uring
- e. Palasit
- f. Kaja (*Dillenia exelsa*)
- g. Saluei
- h. Hara
- i. Nanyup
- j. Kalapapa (*Euodia* sp)
- k. Katepung (*Vernonia arborea*)
- l. Gahung
- m. Mara Kuwung
- n. Tambalik Angin

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