

ETHNOBOTANY OF KEPUH (*STERCULIA FOETIDA* L.) ON SUMBAWA COMMUNITY, NUSA TENGGARA BARAT, INDONESIA

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Introduction

Kepuh (*Sterculia foetida* L.) is a species that spread evenly all across in Indonesia. This species was known had multiple benefits in fulfilling community needs such as food, health, entertainment and others (Heyne 1987; Bawa 2010). It believed that kepuh spreading evenly but in fact today it is getting hard to find. In various acts of illegal logging, the change the function of the area into a residential neighborhood, as well as the conditions on the germination of dormant causing kepuh increasingly difficult to develop.

Kepuh in local wisdom of Sumbawa community has its own place, it can be seen from their interaction with Kepuh (Supardi *et al.* 2006). This form of local wisdom need to be assessed as an effort of documentation and preservation of local wisdom in the future.

In facts, declining of kepuh population needs attention or conservation efforts. One approach in the conservation efforts is kepuh utilization by traditional communities. Value on kepuh was believed to be the trigger of conservation action by the public. In order to obtain such information, the study was conducted with the aim of analyzing the condition of kepuh populations and identifying local wisdom in Sumbawa in utilizing kepuh. This information will be used as input and consideration in decision making process of kepuh conservation (sustainable use) in the future.

Method

The research was conducted in 12 subdistricts in Sumbawa, West Nusa Tenggara, Indonesia namely Sumbawa, Unter Iwes, North Moyo, Moyo Hilir, Moyo Hulu, Lenangguar, Lopok, Lape, Maronge, Plampang, Empang and Tarano. The data collection was conducted in June 2014 s / d in May 2015.

The data collected in this study was divided into two parts, namely the condition of the population of kepuh (kepuh population, distribution pattern and kepuh associations) and the utilization of kepuh (food and medicines).

Forms of kepuh utilization by the community in the Sumbawa District is obtained by means of semi-structured interviews using snowball sampling method. Respondent selection begins with the search key figures (key informant), one or two people like the village chief or shaman who is considered a lot of information about kepuh, then based on information from key figures, we adding other informants (Denzin and Lincoln 2009). This is done until the conditions of data / information obtained saturated (no additional new information).

Results and Discussion

Kepuh as one of the plants that are spread evenly throughout the territory of Indonesia, a sign that God has equipped the plant with many benefits and can be used by many people. This gesture is reinforced by the word of God that none of His creation futile.

Kepuh in the folk wisdom of Sumbawa has a lot of benefits from the roots to the leaves, whether the benefits of food and medicines. These following paragraph will describe each of these benefits.

Food

Kepuh food benefits derived from the seeds. These seeds used as seasoning in various kinds of dishes typical of Sumbawa. Starts from Sepat, Singang (goulash), sirasang, Siong Sira, Cooking (soup) and other variety of other dishes. Seed processing kepuh as seasoning is done by first peeling its skin and roasting and then refined. Bulging with seeds mixed with salt and cayenne and other secret spices (choice if you want to add), it turned into a seasoning called “sira wir”. The name is a blend of wir sira, which means salt and savory meaning (sense created by the kepuh seed oil). Sira wir is mixed into different types of cuisine. In addition to self-produced, in the district. Sira wir ponds are also traded in the market. One small plastic sira wir costs Rp. 1000 - Rp. 3000.

Kepuh which has been roasted seeds can also be eaten, it resembles a peanut. Contraindications of kepuh excessive consumption of seeds can cause dizziness. Dizziness is believed to be due to the kepuh seeds contain a lot of oil. In order to eliminate the dizziness after consuming the seeds kepuh, first soaked in water use salt prior to the baking or roasting. This method is believed to be potent eliminate the dizziness after consuming the kepuh seeds stout directly. Kepuh seeds can also be used as variety of snacks (cake), one of which chips kepuh. Kepuh seed processing into chips is like making chips melinjo. Seeds that have been roasted or boiled and mashed. 3-4 seeds were united into one mashed chips. After mashed, this crisp and sun dried. Dry chips is then fried and ready to be served. In addition to seeds which can be used as a variety of snacks pastry turns the fruit skin (shell) also can be used as kue. According to Purwati (2010), fruit and peel kepuh can be used as ingredients to make a cake.

Medicinal

Sumbawa community famous with their local wisdom was also used as a kepuh media / public treatment facilities. When people know Sumbawa with oil, then one of the mixture should be present in the oil timber is kepuh. According to some sandro (shaman), this kepuh timber shall be among 44 types of wood are included in the mix of oil manufacture Sumbawa. Wood kepuh regarded as “dea” timber (preferred) in a mixture of oil Sumbawa.

Sumbawa oil is already well known everywhere. This oil is used to treat a variety of diseases, both external and internal medicine diseases, both medical and non-medical. Raw materials used for the manufacture of Sumbawa oil is not haphazard. The material consists of various types of wood taken from the mountains (jungle) even at sea. Wood used depends on the instructions obtained by each sandro were made. Intake of raw materials and the manufacture of oil Sumbawa is only done in the month of Muharram. This is because there is a belief in the month of Muharram, God gives grace treatment on earth. So to get that grace then hereditary Sumbawa oil only made this month.

According Supardi *et al.* (2006), while taking medicine from a first sandro read and salawat recited to the Prophet Muhammad as much as three time as petition safety. Selection and part of medicinal plants taken according to the type of disease to be treated, depending on the knowledge and belief of each sandro. Further Supardi *et al.* (2006) explains, there sandro who took the medicine from plants by position backs shadow and her reflection. Some also do it facing Mecca and some are taking by pulling the plants. Of pharmaceuticals derived from the

bark of plants, sandro usually take from the bottom toward the top. It is intended that the disease is lifted together with the bark peeled media.

As a medicine, kepuh in the Sumbawa District intimately with a sense of mystique. Most people believe in Sumbawa that kepuh trees is inhabited trees / tree demon. The form is great with a wide canopy, making the tree look haunted.

Convinced non medical illness must be opposed by non-medical (mystic), making kepuh often used as an antidote to the spirits of disruption. Good trance, witchcraft and magic as burak, sekancing, lome-lome, sword pekir, bawi koro, koro daggers and others, can be treated using material from kepuh.

Shell kepuh also often used as a container (fishing) neutralizing (ai pelawar), former mama (Kunya tradition betel) former mama (Kunya tradition betel) to be marked on the baby's head (slap). Tepak a way that used to treat baby keeps crying, especially at nightfall. The shell is used because it is believed that the baby crying in the disruption caused by spirits.

Evidence that kepuh into the medicine also demonstrated in open bura (box P3K) Sumbawa community. Since time immemorial people Sumbawa used to keep the preparation of medicines in the open bura. One of the contents that must exist in open bura is a material derived from wood kepuh.

Kepuh used to treat diseases other than non-medical, is also used to treat medical disease. Starting from malaria, cough up blood, bladder stones, fertilizer hair, detoxifying, increase endurance and stamina, headache / migraine, stiff, shortness of breath, asthma, stings of wasps / bees, boils, sores, healing after childbirth, appetite enhancer , and even breast cancer. According Purwati (2010), all parts of the plant kepuh can used as a mixture of herbs.

The bark is used to treat ulcers, sores, blood cleansing postpartum, appetite enhancer, cope with crying babies and spew blood. How easy is kepuh protruding rod, taken together then pounded ginger. Juice of water and drunk. For appetite and a crying baby, bark and pounded rice kepuh along like scrubs (temar), rubbed all over the body. Kepuh skin is also used as an antidote to poison and fractures. As an antidote, skin kepuh plus "kasela" skin, skin "ketanga", bark and yellow kemang pounded together, squeezed water and then drunk. As for fractures, skin pounded together with turmeric smeared on the fracture. Spew treatment to blood, skin stem bark kepuh plus islands, crushed and then filter drinking water.

Root seedlings grow kepuh used for endurance and increase stamina. In fact there is a mention that the strength of the same kepuh with earth peg. Therefore some people consider the Sumbawa kepuh as ginseng. Processing is performed after kepuh roots first dried and then boiled in three cups into a glass.

The shell of the burned kepuh believed to reduce dizziness (rolled earth) after affixed to the forehead. Eggshell kepuh also used as "pejula" (container results mamaq "betel nut" parents). Betel is placed in the shell and then rubbed on the head and chest of the person with asthma / shortness of breath. Meanwhile, stew or squeeze the leaves can be used for bathing. This method is believed capable of treating sick with malaria and pegalinu. Kepuh also believed to be potent eliminate swelling caused by bee stings. Eye rings made of wood kepuh attached to any part of the sting, gently bitten areas that will not swell.

Breast cancer disease, kepuh can be used section seeds. Together with a few other ingredients, namely ginger, "Selaparang mira" (a type of grass), "pusuk jeliti", kepuh finely ground. Using chicken feathers that have been falling, collision result is then applied to the part swell. Fossil kepuh also used in several places in the eastern part of the district. Sumbawa. Wood

fossil kepuh placed on jug of drinking water. Fossil wood placed in a jar of water are believed to function as a neutralizer of bacteria.

According to Bawa (2010), oil of seed ethanol extract kepuh potential as free radical agents of 85.05% in the 60th minute. Kepuh potential as an antioxidant also expressed by other researchers, both part of the seed (Galla 2012) and leaves (Manivannan et al., 2011). This shows that the seeds and leaves kepuh potential supplement is developed into a free-radical scavengers that have an impact on the emergence of various diseases such as cancer, premature aging, inflammation and coronary heart disease. The disease appears due to free radicals can react with proteins, lipoproteins, and DNA (Asih et al. 2010).

According Purwati (2010), the results of research in India is known that sterkulat acid in the seed oil kepuh reach 71.5 to 72.0%. Sterkulat acid can be used as an ingredient of various industrial products such as cosmetics, soap, shampoo, fabric softener and paint. Sap of kepuh potential as an anti-bacterial. Research Kudle *et al.* (2013) showed that the sap can inhibit various activities microbial strains, including *Escherichia coli*, *Pseudomonas putida*, *Bacillus subtilis*, *Staphylococcus aureus*, *Klebsiella pneumoniae*. Kepuh sap is acting as an antibiotic against various types of microbes. In addition to the sap, leaves kepuh easy also has potential as an antimicrobial (Singh and Vidyasagar 2014, Vital et al. 2010)

Kepuh plant also serves as a medicine in cattle. Kepuh leaves that have been crushed, by people believed to function healthy horse hair. Besides the leaves are also believed to treat pain in the eyes of the buffalo. When taken squeeze water kepuh leaves can treat such symptoms of tuberculosis (“jangkek”) in horses.

Conclusions

Sumbawa local wisdom about kepuh can be seen from the utilization of kepuh in the field of food and medicines. In the field of food kepuh used as seasoning named sira wir well as the materials for various types of chips and other snacks. Utilization as a medicine, the kepuh is believed to cure a disease of non-medical and medical, ranging from witchcraft, magic or a disease such as malaria to cancer. Medical activity that using kepuh material could be seen from the manufacture of kepuh wood oil Sumbawa which is recognized as a “dea” timber (preferred) in a mixture of oil Sumbawa.

Dissemination of the importance and benefits of kepuh (*Sterculia foetida* L.) as a multipurpose plants and plants threatened with extinction in the wider community is a priority that we have to do. Further and advance research particularly in improving the life chances of the kepuh become important as the other steps in conservation efforts kepuh.

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