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Research Article

Ethnobotanical Study of Sasak Ethnic, East Lombok, West Nusa Tenggara

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Abstract
The ethnobotany study of the Sasak ethnic group who live in three villages in East Lombok, Lombok Island, West Nusa Tenggara is intended to reveal their knowledge about the diversity of useful plants including their utilization. This study was conducted through interviews and direct observation. The study recorded 103 species of plants which were used as food, traditional medicine, natural dyes and woven handicrafts. Plants collected were mostly from the wild and some were domesticated. Interviews showed that these days local communities rarely use uncultivated plants as food sources.

Keywords: Ethnobotany, Sasak ethnic, Lombok, Indonesia

Introduction
Indonesia is the world's largest archipelago country, consisting over 17,508 islands (LIPI, 2013), including Lombok Island. Located in West Nusa Tenggara province, the island is inhabited mostly by the Sasak ethnic group. Etimologically, according to Kawi language (ancient Java language), the word "Lombok" means "straight, honest"; whereas word "sasak" originates from the word "sah" which means "go" and "shaka" meaning "the elders." It is suggested that the Sasak ethnic people came from Java; this is supported by the use of Sasak inscription called "Jejawen," which has its origins in Java writings/alphabet in Sasak literature (Gratha, 2012).

Biodiversity, culture and nature tourism on Lombok Island has attracted local as well as international scientists and travellers. In addition, the increase in exploitation of natural resources, technological intervention into local practices, economic pressures, increasing population and decreasing areas for cultivation are some contributing factors leading to the shifting in ways of life of the Indonesian native people in general. As a result, local knowledge

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practised for years is disappearing, and this applies to the Sasak ethnic group as well.

Sasak is the largest ethnic group on Lombok. They constitute most of the island's population and numbered about 2.6 million at the turn of the 21st century. The Sasak speak Sasak or Sasak-flavoured Balinese, both of which are Austronesian languages. Originally the only inhabitants of Lombok, the Sasak were under the political domination of Bali from the 18th century until 1895, when the Dutch conquered the island. Concentrated most densely in the central third of the island, the Sasak are predominantly subsistence farmers of wet rice, coffee, vegetables, coconuts, bamboo, sugarcane and pandanus. They live in small villages of 5–20 families or in large villages with several thousand residents. Houses are built around a *kampu* (religious compound), where ceremonies take place (http://www.britannica.com/topic/Sasak).

The objective of this study was to document all traditional useful plants that are or have been used by the Sasak peope, and to ultimately document their traditional knowledge associated with local plant uses.

Methodology

The study was conducted in 3 villages representing accesses to abundant vegetation (Jeruk Manis village, situated on the border of Gunung Rinjani National Park, Figure 1), culture (Dusun Sade at Rambitan village, a Sasak cultural village, Figure 2), and craft centre (Loyok village, well known for its plaits craft, Figure 3). The majority of people in these areas are Muslim and are farmers.

A Prior Informed Consent (PIC) letter was sent in advance to the three village heads (Jeruk Manis, Sade and Loyok) through the local goverment at East Lombok, West Nusa Tenggara, before entering the village to seek their permission and agreement for this study to be conducted.

Data was collected in accordance to Vogl et al. (2004), Suminguit (2005) and Nolan & Turner (2011), with modification on non structural and "open ended" interviews followed by direct field observations. Interviews were conducted among "belian/dukun" or the elders who have familiarity on the use and benefits of plants in their villages.

Figure 1. Sasak people at Jeruk Manis village use traditional tools in their fields

Figure 2. Dusun Sade at Rambitan village, a Sasak cultural village; and one of the respondents at Dusun Sade spinning yarn for woven cloth material

Figure 3. Well known plaits crafts made by Loyok villagers

Criteria for selection of the respondents (17 people), such as native or have lived in the study area for at least 20 years, the age of respondents older than 35 years and are familiar with useful plants (Table 1). The local name and use of each plant wase catalogued; specimens were made into voucher of herbarium specimens and identification of each scientific name was conducted at the Botany Division, Research Center for Biology – Indonesian Institute of Sciences.

Table 1. List of characteristic respondents in three villages (Jeruk Manis, Sade & Loyok), East Lombok, West Nusa Tenggara

No	Characters of respondents	Number of respondents
1	Gender:	
	Male	9
	Female	8
2	Range of age:	
	35 – 50	3
	51 – 66	10
	67 – 82	4
3	Occupation:	
	Farmer	6
	Belian/Dukun (traditional priest)	4
	Craftmens	4
	Housewives	3
4	Education:	
	Elementary school	11
	Junior high school	4
	Senior high school	2

Results and Discussion

Cultivation system of the Sasak Ethnic

Similar to other ethnic groups in Indonesia, paddy or “pade” in Sasak is the most important source of carbohydrate. On average, each family owns about 0.5-1 ha of rice field. The paddy is usually planted in an even and wet land. The Sasak name rice fields or sawah as “bangket,” the activity of planting paddy is called “lowong.” Like other ethnicities practising rice cultivation, preparation for rice cultivation by the Sasak involves a series of ceremony from seedling preparation to harvesting.

The first activity is “mengampai” or preparing the paddy seedling. The paddy germinates between 10-14 days depending on the variety. Local paddy such as Buluh, Kanbo, Reket and Gadis require longer time to sprout compared high yielding varieties such as Pelita, IR 46, etc.

While waiting for the seedling to be ready for planting, farmers conduct “garu” or crumbling the soil through which land is prepared by ploughing using “tenggale” and garu. Land preparation is ended with “beririn” or clearing irigation around the paddy field. The day before planting, a ritual called “mamaon” is conducted by a “belian” or an elder. Traditionally, the best time to conduct the mamon is in the morning after the sun rises, around 7 or 8 am, on Mondays, Wednesdays or Thursdays. The offering consists of leafy *Jarak* stem *(Jatropha curcas)*, Green *Andong* (*Cordyline fruticosa)*, Bunut (*Ficus* sp.) and *Legu* stem (*Vitex trifolia*). The belian then says a mantra while circling the field to find a lucky spot, and then places these offerings on the spot. The purpose of this traditional ritual is to protect the planted rice from unsucessful harvesting.

Traditional cultivation generally involves ancestor rituals in which each ethnic group has its own specific way (Cooten, 1977). In the village of Wumbu Buro, Kabaena Island in Sulawesi Tenggara, the Moronene group starts paddy planting with the traditional ritual “kinanimbula” (Rahayu & Rugayah, 2010). The Mamaon ritual is now rarely practiced by the Sasak, however the role of the elder is still important and he is considered a wise man. His blessing is believed to allow the farmer’s effort to succeed and he can also prevent land disputes in the future.

The next activity is “ngume” or “nyeder” which involves clearing the field from weeds, and “rabuk” or application of fertilizer. These are done once or twice during the planting period when the paddy is 1 and 2.5 months old. The ngume is always conducted before the rabuk. The tool used for ngume is called “kis-kis” made from a long old bamboo stem about 2m in length and which has both ends that are bended; with a sharp metal like knife mounted to one end. The purpose of a long kis-kis is so that farmers can just stand and walk while clearing weeds without having to bend or squat. It is considered a Sasak local wisdom which involves efficiency of time and energy when carrying out the activity.

After paddy reaches 2.5-3 months, grains start to appear and the ritual “ngebuk” is then performed, usually on the same days as the Mamaon ritual. In this ritual, some paddy grains in all corners of the field are tied with “buk” leaves and covered with cotton. The purpose of this ritual is to stimulate grain development. The next traditional ritual performed is “nanares”, once the paddy grains start to ripen or are at 3 – 3.5 months old. The ritual is marked with the plugging of the Enau leaf (*Arenga pinnata)* covered with “ketan dan

pepesu" (*Paederia foetida*) on the same spot as the location of Mamaon offerings. This activity is then followed by fogging the field by burning paddy husks/hulls around the field. The significance of this ritual is to repel natural predators, such as rats and birds and other grain eaters; the nanares ritual is slightly similar with "sisiran" performed by Javanese farmers (Sutarno, 1995). One day before harvesting, the ritual "bebuntil" where paddy grains on corners are tied toward the right side, is performed. Its significance is to bind together the "essence" of the paddy. The "kucingan" offerings performed by farmers in Central Java (Sutarno, 1995), and "pamungkas" or "mipit" offerings practiced in West Java (Rahayu & Siagian, 2000) is considered to be similar to the "bebuntil" offering.

Harvesting is conducted using "awit" which is some sort of sickle and the paddy grain is then moulted using "perambet" and cleansed from dirt and hull using "kleong" or a bamboo basket. The refined grain is then sun-dried for two to three days and stored in the house. Unlike in West Java, no barns were spotted on rice fields in this area.

Paddy cultivation can be performed twice in a year. After two series of paddy planting, the land is then planted with crops or "tetanduran" including "antap" long bean *Vigna unguiculata*, corn *Zea mays*, "sebia" hot chili *Capsicum fructescens*, egg plant *Solanum melongena*, "terungacik", tomato *S. lycopersicon*, "botor" winged bean *Psophocarpus tetragonolobus* and snap/string bean *Phaseolus vulgaris*. On the ridge area in between two rice fields varieties of banana or "punti" *Musa* spp are planted, and these include varieties of "tolang," "sabe," "tombor," "bole," "telu," "lilin," "loma" and "ranggot." According to Ruthbenberg (1980) and Dove (1988), plant cultivation strategy as practised above are common in all communities within Southeast Asia. It is proven to be less intense and requires only low technology (Broolfield & Padoch, 1994).

Utilization of Plant Diversity

To meet their daily needs, the Sasak use various plants around their surroundings. It is noted that 102 species of plants are used for various purposes. Fifty seven species as sources of carbohydrate, vegetables and fruits, seven species as building materials, 57 species as source of medicine and cosmetics, seven species as firewood, eight species for ritual accessories, three species for woven materials, ten species as source of natural dyes, two species as natural pestisides and 14 species for other purposes. Some species might have more than one use (see Table 2).

Table 2 Use of various Plants in East Lombok, NTB

No.	Scientific Name	Local Name	Plants Used	Usage
1	*Agave cantala*	Nanas hutan	Leaf	Woven material
2	*Ageratum conyzoides*	Bebembek	Leaf	To treat wound
3	*Aleurites moluccanus*	Lekong	Fruit Bark	Traditional cosmetic, spices Anti-bleeding agent
	Alocasia indica	Bira	Tuber	Staple food
5	*Ananas comosus*	Nanas	Leaf Fruit	Natural dyes Fresh fruit
6	*Aquilaria malaccensis*	Ketimunan	Stem	Incense in rituals
7	*Arenga pinnata*	Enau	Leaves Young leaves Stem. Branch Fruit sap	Cigar like material Used in paddy ritual Firewood Drink, source of sugar
8	*Azadirachta indica*	Mimba	Leaves	Remedy for wound, diabetes, malaria.
9	*Benincasa hispida*	Sonda	Young fruit Ripe fruit	Cooked as dish Fresh fruit
10	*Boenninghousenia albiflora*	Kelor bale	Leaves	Pesticide
11	*Borreria laevis*	Barabas	Leaves	Used to treat tumour
12	*Calotropis gigantean*	Rembiga	Sap	Used to treat tooth ache
13	*Canna edulis*	Sebet	Tuber Leaf	Staple food Food wrapping
14	*Carica papaya*	Gedang	Fruit Young fruit Leaf Flower	Fruit Used to shrink the abdomen To stimulate appetite After birth treatment, Contraceptive
15	*Cassia siamea*	Johar	Bark	To treat Malaria
16	*Ceiba pentandra*	Randu	Bark	To cure stiff muscle, headache and cramp abdomen
17	*Ceriops tagal*	Bakau	Bark Trunk Tree	Natural dye Building material, firewood Water retainer
18	*Citrus maxima*	Jeruti	Bark Fruit Fruit skin	Used for stomach ache and antibleeding agent. Fresh fruit Material for toy

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Table 2. (Continued)

No.	Scientific Name	Local Name	Plants Used	Usage
19	*Cinnamomum burmanii*	Kayumanis	Bark	Spices and traditional medicine
20	*Cleome viscosa*	-	Leaf	Used to treat wound
21	*Clerodendrum paniculatum*	Api-api	Leaf	To treat sore/red eye
22	*Cocos nucifera*	Nyiur	Leaf Trunk Leaf stem Fruit Fruit husk	Used for roof tile Building material, firewood Firewood Coconut milk/condiment Natural dye
23	*Coffea robusta*	Kopi	Fruit	Serve as drink, natural dye
24	*Cordyline fructicosa*	Andong	Young leaf	Used in paddy ritual
25	*Coriandrum sativum*	Ketumbar	Seed	Condiment, spice, traditional potion
26	*Cucurbita moschata*	Waluh	Leaf & fruit	Cooked as dish
27	*Curcuma longa*	Sekur	Aerial root	Used to treat head ache, potion after birth.
28	*Cymbopogon nardus*	Sesereh	All parts	Used to treat internal pain, spice
29	*Dioscorea alata*	Egal, Uwibonjor, Uwilengker, Uwi pit	Tuber	Staple food
30	*Dioscorea bulbifera*	Kalem	Tuber, fruit	Staple food
31	*Dioscorea esculenta*	Kembili	Tuber	Staple food
32	*Dioscorea hispida*	Gadungreket, Boyod	Tuber	Staple food
33	*Dioscorea* sp.	Gadung Kendit	Tuber	Staple food
34	*Dolichos lablab*	Komak	Fruit, Leaf	Food, natural dye
35	*Erechtites valerianifolia*	Gegook	Leaf	Used to treat fever and as cover on wound
36	*Eryngium foetidum*	Kesumbang Bewi	Root	Used to treat asphyxiate and flagging
37	*Eupatorium odoratum*	PKI	Leaf	Used to treat wound
38	*Euphorbia hirta*	Kungku-kungku	Sap	Used to treat wound
39	*Ficu srumphii*	Ancok	Leaf	Used to treat wound
40	*Ficus* sp.	Bunut	Leaf trunk	Used in paddy ritual
41	*Fleurya interrupta*	Serasah	Daun. Leaf	Itchy medicine
42	*Garcinia mangostana*	Manggis	Bark Fruit	Used to treat diarrhea, stiff muscle, and headache. Also as natural dye Served as fresh fruit
43	*Graptophyllum pictum*	Sembalekate	Leaf	Used to treat headache, afterbirth potion

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Table 2. (Continued)

No.	Scientific Name	Local Name	Plants Used	Usage
44	*Gynandropsis gynandra*	Lengkarang	Young leaf	Vegetable
45	*Hibiscus tiliaceus*	Tapen	Stem Leaf Tree	Building & boat material, firewood Used to reduce fever Shade plants
46	*Hydrocotyle sibthorpioides*	Bebele	All parts	Vegetable, lowering fever effect
47	*Hyptis brevipes*	Apur-apur, Teberate	Leaf Flower	Treatment for bruise Toxin
48	*Imperata cylindrica*	Re	Leaves Root	Used as roof cover To reduce fever, stiff muscle, curing head ache and stomach pain remedy.
49	*Indigofera* spp.	Taum	Leaves	Natural dye
50	*Ipomoea pes-caprae*	Leleda	Plant Leaf	Ornamental plant To treat haemorrhoid
51	*Jatropha curcas*	Ketangan	Seed Young bud Leaf Bark	As oil alternative Used on paddy ritual. Remedy for head ache, potion on birth Used to prevent bleeding
52	*Kalanchoe pinnata*	Sosor Bebek	Leaf	Reducing fever
53	*Lannaecoro mandelica*	Banten/ Kelor Jawa	Leaf Stem Tree	Remedy for wound and reducing fever Remedy for ulcer Used as living fence
54	*Leucaena leucocephala*	Lamtoro	Leaf	Remedy for ulcer
55	*Limnocharis flava*	Marembele	Leaf	Cooked as dish
56	*Luffa aegyptiaca*	Truwuk	Fruit Old fruit pulp	Cooked as dish Used as scrub
57	*Luffa cylindrical*	Truwuk Sagi	Fruit	Vegetable
58	*Lygodium circinnatum*	Ketak	Stem	Plaiting material
59	*Maranta arundinacea*	Marus	Tuber Leaf	Food staple Wrapper
60	*Momordica charantia*	Pria	Fruit Fruit	Vegetable Remedy for head ache
61	*Morinda citrifolia*	Pace	Leaf	Wrapper for broken bone
62	*Moringa oleifera*	Kelor	Leaves	Remedy for headache, to stimulate milk in lactation, natural dye

(Continued on next page)

Table 2. (Continued)

No.	Scientific Name	Local Name	Plants Used	Usage
63	*Muntingia calabura*	Singapur	Fruit Tree	Served as fresh fruit Shade plant
64	*Musa textilis*	Punti manila	Pseudo stem	Woven materials
65	*Musa* spp.	Punti	Leaf Fruit	Natural dye, used as wrapper Fruit
66	*Oxalis corniculata*	Empet-empet	All parts	Ointment for new wound
67	*Passiflora quadrangularis*	Pisa	Fruit & Seed	Fruit
68	*Persea americana*	Apokat	Bark Trunk Fruit	Anti-bleeding agent Building material, firewood Fruit
69	*Phaseolus lunatus*	Komak Kuning	Fruit	Food staple
70	*Paederia foetida*	Pepesu	Leaf, Stem	Used to treat shortness of breath, also on paddy ritual.
71	*Pilogyne repanda*	Dedilem	Leaf	Used during labour
72	*Piper betle*	Leko	Leaf	To treat fever
73	*Piper nigrum*	Sang	Seed	Spice, condiment, traditional potion
74	*Piper retrofractum*	Sembiatan	Fruit	Spice, condiment, traditional potion
75	*Piper umbellatum*	Umbe	Leaf	Remedy for rash
76	*Pluchea indica*	Beluntas, Ulet-ulet	Leaf All parts	Remedy for leucorrhoea used during labour Cattle feed
77	*Psophocarpus tetragonolobus*	Kecipir	Fruit Leaf	Dish Natural dye
78	*Pterospermum javanicum*	Bayur	Flower Trunk	Traditional cosmetic Building material; firewood
79	*Pueraria lobata*	Babaye	Tuber	Staple Food
80	*Rorippa heterophylla*	Jaong	Leaf	Served as dish
81	*Picrasma javanica*	Prian	Bark	Remedy for malaria, to expel flea
82	*Pillogyne repanda*	Bebikam	Leaf	Lowering fever
83	*Rubus rosafolius*	Murbei	Fruit	Served as fresh fruit
84	*Sandoricum koetjape*	Sentul	Bark Trunk Bark	Remedy for diarrhea Building material, firewood Remedy for diarrhea
85	*Sauropus androgynus*	Sager	Leaf	To stimulate lactation process.
86	*Schefflera elliptica*	Ketandandedangang	Bark Young leaf	Remedy for stiff muscle, treatment during labour Stimulating toddler to walk

(Continued on next page)

Table 2. (Continued)

No.	Scientific Name	Local Name	Plants Used	Usage
87	*Sechium edule*	Jepang	Fruit	Served as dish
88	*Sesbania grandifolia*	Ketujur	Young leaf, flower Leaf	Served as dish To treat broken bone, stimulant during lactation
89	*Sida rhombifolia*	Tengasigangan	Leaf	Remedy for tooth ache, to cover wound
90	*Sonchus arvensis*	Tetai	Leaf	To treat diabetics
91	*Syzygium aromaticum*	Cengkeh	Fruit	Condiment, ingredient of traditional potion
92	*Syzygium polianthum*	Jukut	Young leaf	For vegetable and condiment
93	*Syzygium*sp.	Jukutgawa	Fruit	Served as fruit
94	*Tamarindus indica*	Bage	Fruit Trunk	Condiment Building material, firewood.
95	*Trevesia sundaica*	Penggeng	Young stem Young leaf	Ingredient for chilli sauce Vegetable
96	*Tridax* sp.	Rebuletu	All parts	Cattle feed
97	*Vitex trifolia*	Lage, legu	Leaf Bark	To treat itch, used as deodorant, treatment during labour Natural dye
98	*Zyziphus* sp.	Daun Berduri	Fruit Leaf	Served as fresh fruit Used to cleanse corpse
99	?	Pepauh	Leaf	Vegetable
100	?	kembangkulur	Flower	Mosquito repellent
101	?	Sereget	Fruit	Served as fresh fruit, Ink
102	?	Kenebele	Tuber	Food staple
103	?	Tandan Bikam	Leaf Young leaf	Remedy for sore throat, high fever Vegetable

Plants commonly found in the forest and widely used by the Sasak include "sembalekate" *Graptophyllum pictum* (traditional medicine, used on traditional rituals), bayur *Pterospermum javanicum* (used as building materials, firewood, and traditional cosmetics), "ketandandedangang" *Schefflera elliptica* (traditional medicine), "lage" or "legu" *Vitex trifolia* (medicine and natural dye), "sentul" *Sandoricum koetjape* (fresh fruit) dan "prian" *Picrasma javanica*(medicine).

At present, modern cultivation that focuses less on pre and post harvest processing has slowly replaced some indigenous plants. An example of this are some carbohydrate-source plants such as *Dioscorea* spp., *Maranta arundinacea* and *Pueraria lobata* which are replaced by *Oryza sativa*, "ambonjama" ubijalar *Ipomoea batatas* and "ambon jawa" ubikayu *Manihot esculenta*. In the same way, uncultivated crops have been replaced with cultivated crops such as from Cucurbitaceae and Fabaceae families. Some fruit trees such as Manggis *Garcinia mangostana*, Duren *Durio zibethinus* and Rambutan *Nephelium lapppaceum* are intensively cultivated and become a significant additional income for people in East Lombok and West Lombok.

The Sasak community use a spell/mantra of plain water for their main traditional medication practice. The patient is then given this water. There are not many plants that are used for medication purpose except for after birth treatment. On the research location, the local name "bebele" is applied to *Hydrocotyle sibthorpioides* whereas Sasak community at the village Sembalun applied "bebele" to *Centella asiatica* which is applied to reduce fever and to obtain a healthy womb. These two species have similar morphology and belongs to the Apiaceae family. A phytochemical analysis is required to determine type and concentration of the active compounds on those two species.

The use of "kelor bale" *Boeninghousenia albiflora* as bio-insecticide needs further study on its active ingredients. According to Perry & Metzger (1980), steeped root of the plant is used as remedy for malaria in China and its dried leaves as an anti bleeding agent in Taiwan. However this knowledge does not seem familliar to the Sasak and the plant grows on the research location in abundance. The plant has not been listed as a source of natural pesticide.

Culture and the distinct woven cloth of Lombok are well known to many foreign countries. There are at least four weaving techniques known to Lombok people, the simple methods include "songket," "tenun ikat" and "sulam." The

simple weaving technique uses cotton thread called "beberut." Cotton (*Gossypium arboreum*) was first cultivated in Lombok in the early 19th century, its thread was then coloured using natural dyes (Gratha, 2012). Nowadays, with the development of technology, apart from using cotton thread, Sasak people also use fibres made from the stem of *Musa textilis* (Pisang Manila) and leaf of *Agave cantala* (wild ananas). The wild ananas is obtained from its habitat in the forest. The plant originated from Mexico and was introduced by the Spanish who initially used it as life-fence (Utomo, et al. 2003). Interviews with the Sasak revealed that of three species, the fibre of wild ananas was the most difficult to process. Its fibre is stiff and easily broken and thus requires a painstaking process to finally produce yarn.

Although synthetic dyes were introduced over the decades, the demand for natural dyes has increased. The Sasak use natural dyes from plants found in their surroundings, these include leaves of *Indigofera* spp, or "taum" to produce blue, "antek" black – bean to produce purple colours, "oma" leaf (*Psophocarpus tetragonolobus)* or Kelor (*Moringa oleifera*) for green colour, "luking kenyaman" or coconut fibre (*Cocos nucifera*) and coffee grains (*Coffea robusta*) for brown, and bark of "lage" (*Vitex trifolia*) for red. The length of soaking the yarn in the dye affects the colour produced. The longer the soaking, the deeper the colour will be.

The cloth "ulopdoyo" which is a distinctive woven cloth of the Dayak Benuaq, East Kalimantan Island is produced using fibers from the leaf of doyo, *Curculigo latifolia*. Its dominant traditional colours are black (from leaf of "sopaakng" *Archidendron* sp), red (from seed of "gilinggam" Bixa *orellana*), yellow (from the root of Curcuma *longa* and "siraakng" *Codiaeum variegatum*), and green (from the leaf of "blowo" *Cordyline fruticosa*). Blue dye originating from the leaf of *Indigofera tinctoria* is brought from outside Kalimantan (Zakorka, 2012). In Lombok Island, *Codiaeum variegatum* dan *Cordyline fruticosa* are used only as ornamental plants, their use as source of natural dyes is not known.

One of the well known souvenirs from Lombok is plaits from stem of "ketak" *Lygodium circinnatum*. In Bali island ketak is known as "pakuata" and is a handicraft material that contributes significantly in increasing income of the local people (Astuti et al. 2000). It is important to start cultivating this species extensively to ensure availability, as at the present it is wildly grown.

Conclusion

Etnobotany study of the Sasak ethnic in East Lombok revealed 103 useful species. These are used as stapple food, remedy for various illnessess, building materials, fruits, vegetables, source of natural dyes, and handicraft material. Fifty seven species are sources of carbohydrate, vegetables and fruits, seven species are building materials, 57 species are a source of medicine and cosmetics, seven species are used as firewood, eight species for ritual accessories, three species for woven materials, ten species as source of natural dyes, two species as natural pestisides, and 14 species for other purposes. Some species might have more than one use. Ketak as a potential source of additional income for local people merits further study, and extensive cultivation. This would ensure availability of raw material and thus preserving local knowledge and culture.

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