

# Ethnomedicinal Study in Mekarbuana Village, Karawang District, Indonesia

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**Abstract**---The local people from Mekarbuana, Tegalwaru Karawang is one of the people in Indonesia that still uses plants and animals as ingredients of traditional medicine. This study aimed to find out the natural ingredients that are used in the lives of local people in Mekarbuana including the parts used, how to use and how to process them. This research was carried out by snowball sampling method which was carried out in series by interview to the people who have been know about medicinal plants. Results of the study showed that 56 species of medicinal plants and 6 species of animals used by by local people for treatment with the most widely used parts of the plant namely leaves (58.92%). The part of the animal that is often used is meat (50%). For plants, the most commonly used method of processing is boiled (50%) and the most commonly used method of use is by drinking (60.71%). For animasl, the most commonly used method of processing is dried and packed (66.67%) and the most commonly used method of use is by eating (83.34%).

**Keywords**---Traditional Medicine, Mekarbuana Village

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## I. Background

Indonesia has around 30,000 types of medicinal plants based on the wealth of flora, of course Indonesia has the potential to develop herbal products whose quality is on par with modern medicine (Johnherf, 2007). Since the first time the Indonesian people have known and used medicinal plants as an effort to tackle health problems. Knowledge about the use of plants begins from the experience of ancient society. Until the 19th century, knowledge of plants as medicines by the community began to be considered still relevant today (Rodrigues, et al. 2003). Indonesia has around 300-700 ethnic groups which produce a diversity of cultures, traditions and local wisdom that is different in each ethnicity in each region (Silalahi, M. 2017). Karawang is one area that has a diverse natural resource potential, including medicinal plants. Most of the Karawang regency area is lowland, and in a small part in the southern region is a plateau. The southern part of Karawang has a height of up to 1200 m above sea level, many types of plants are found which are used by local communities as medicinal plants (Anonymous, 2015). Medicinal plants are used in various ways: boiled; be drunk; eaten; burned; pounded; sticked; blend; squeezed; dropped; smeared; brewed with hot water; mixed with other traditional medicinal herbs; salt, sugar, vinegar and coconut oil are added. Traditional medicinal plants are used for various things, namely: to treat headaches, intestines, stomach, liver, kidneys, ulcers and lungs; as a cure for fever, malaria, intestinal worms, diarrhea, heartburn, swelling, chills, coughing, cancer, body odor, itching, cataracts, various internal and external wounds; stop postpartum bleeding; accelerate wound healing (Mamahani, et al. 2016).

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Mekarbuana Village is one of the nine villages in Tegalwaru District, Karawang Regency. Mekarbuana Village is a village in the highlands where there are still many plantations and forests, so there are still many natural materials that can be used for traditional medicine. Mekarbuana Village Community, Tegalwaru District, Karawang Regency is one of the communities in Indonesia that still utilizes plants as traditional medicinal ingredients. Besides that, the people of Mekarbuana Village also use animal natural ingredients as medicine to cure various symptoms of disease.

Ethnomedicin is derived from the words ethno (ethnic) and medicine (medicine). In terms of ethnomedicin is the perception and conception of local communities in understanding health or studies that study traditional ethnic medical systems (Silalahi, M. 2017). This study aims to examine the natural materials used in the lives of local communities in Mekarbuana Village, Tegalwaru District, Karawang Regency and to find out how to process natural materials used as medicine in Mekarbuana Village, Tegalwaru District, Karawang Regency, including the parts used, processing methods and how to process them.

## II. Methods

This research was carried out in Mekarbuana Village, Tegalwaru District, Karawang Regency, which was conducted in May 2018. This research used a snowball sampling method that was carried out serially by requesting information from people who had been interviewed or contacted previously. The resource persons consisted of the heads of RT 01-12 Mekarbuana Village, and other communities who had knowledge about medicinal plants. The selection of speakers is based on recommendations from previous speakers. Data analysis of the results of the interviews was analyzed in order to obtain the results of the study of ethnomedicin which included the part used, the method of processing, the method of use, and the type of disease that could be treated. Then a systematic picture is obtained.

## III. Results and Discussion

Based on the results of an ethnomedicin study on the community of Mekarbuana Village, Tegalwaru Subdistrict, 56 species of medicinal plants and 6 animal species utilized by Mekarbuana Village community from RT 01 - 12. The types of plants and animals used clearly can be seen in Table 1 and Table 2.

Table 1. Types of Medicinal Plants Utilized by Mekarbuana Village Communities

Plants	Species and Family	Parts Used	Process	Use	Efficacy
Pepaya	<i>Carica papaya</i> L. (Caricaceae)	Root	Boiled	Be drunk	Rheumatoid
		Fruit	Boiled	Be drunk	Menambah produksi ASI
Pepaya Jepang	<i>Cnidocolus aconitifolius</i>	Leaf	Boiled	Be drunk	Stroke, diabetes
Suji	<i>Pleomele angustifolia</i> (Liliaceae)	Leaf	Boiled	Be drunk	cough
Mahkota Dewa	<i>Phaleria macrocarpa</i> Boerl. (Thymelaeaceae)	Fruit	Boiled	Be drunk	fever

Balakacida	<i>Chromolaena odorata</i> (Asteraceae)	Leaf	Pounded	Be Lubricated	wound
Sambung Nyawa	<i>Gynura procumbens</i> (Lour). Merr. (Asteraceae)	Leaf	Boiled	Be drunk	Pegal Linu, Nyeri Haid
Keji Beling	<i>Strobilanthes crispus</i> L (Acanthaceae)	Leaf	Boiled	Be drunk	diuretic
Alang - alang	<i>Imperata cylindrica</i> (L.) Beauv. (Poaceae)	Root	Boiled	Be drunk	sore
Sirih	<i>Piper betle</i> Linn (Piperaceae)	Leaf	Boiled	Be drunk	bleeding
Kumis Kucing	<i>Orthosiphon aristatus</i> (Blume) Miq. (Lamiaceae)	Leaf	Boiled	Be drunk	diuretic
Kunyit	<i>Curcuma domestica</i> Val (Zingiberaceae)	Rhizome	Dried dan Pounded	Be drunk	Gastric ulcer
Cecendet	<i>Physalis angulata</i> L. (Solanaceae)	Leaf, Fruit	Boiled	Be drunk	rheumatoid
Nangka	<i>Artocarpus heterophylla</i> Lamk. (Moraceae)	Seed	Shredded	Be drunk	diarrhea
Mengkudu	<i>Morinda citrifolia</i> L. (Rubiaceae)	Fruit	Pounded	Be drunk	hypertension
Alpukat	<i>Persea gratissima</i> (Lauracea)	Fruit	Pounded	eaten	hypercholesterolemia
Cengkeh	<i>Syzygium aromaticum</i> (Myrtaceae)	Fruit	Pounded	Dibalur	Minyak Urut
Pinang	<i>Areca catechu</i> L. (Arecaceae)	Fruit	Direct eat	eaten	Teeth
Suweg	<i>Amorphophallus paeoniifolius</i> (Araceae)	Bulbs	Shredded	eaten	Kidney disease
Cariang	<i>Homalomena alba</i> (Araceae)	Getah	Pounded	Be Lubricated	Antidotum snake
Rotan	<i>Calamus rotang</i> L. (Arecaceae)	Shoots	Boiled	Be drunk	Demam
Pisang Kole	<i>Musa balbiiana colla</i> (Musaceae)	Latex	Pounded	Be Lubricated	wound
Singkong	<i>Manihot esculenta</i>	Leaf	Pounded	Be Lubricated	ringworm

Merah	<i>crantz (Euphorbiales)</i>				
Kelapa Muda	<i>Cocos nucifera (Arecaceae)</i>	Water Fruit	Cut and taken water	Be drunk	Digestive, fever
Asam Jawa	<i>Tamarindus indica L. (Fabaceae)</i>	Leaf	Pounded	Be Lubricated	skincare
		Fruit	Pounded	Be Lubricated	skincare
Katuk	<i>Sauropus androgynus (Euphorbeaceae)</i>	Leaf	Boiled	Be drunk	Anemia, gastric ulcer, Induced breastmilk
Cente	<i>Lantana camara (Verbenaceae)</i>	Leaf	Pounded	Be drunk	Diabetes
Putat	<i>Planchonia valida (Lecythidaceae)</i>	Leaf	Pounded	Be drunk	Diabetes
Pohon Insulin	<i>Smallanthus sonchifolius (Asteraceae)</i>	Leaf	Boiled	Be drunk	hipertension
Klingsir	<i>Clinacanthus nutans (Acanthaceae)</i>	Leaf	Pounded	Be drunk	rheumatoid
Rengasa	<i>Gluta renghas (Anacardiaceae)</i>	Leaf sap	Taken sap	Be dripped	eye
Bunciris	<i>Bryophyllum pinnatum (Crassulaceae)</i>	Leaf	Pounded	Be Lubricated	fever
Jahe merah	<i>Zingiber officinale var (Zingiberaceae)</i>	Rhizome	Pounded	Be Lubricated	rheumatoid
Jahe	<i>Zingiber officinale var (Zingiberaceae)</i>	Rhizome	Shredded	Be Lubricated	Wound after cesarean section
Curiga	<i>Isotoma longiflora (Campanulaceae)</i>	Flower sap	Taken sap	Be dripped	eye
Babandotan	<i>Ageratum conyzoides L. (Asteraceae)</i>	Leaf	Boiled	Be drunk	Gastric ulcer
Sembung	<i>Blumea balsamiferaf (Asteraceae)</i>	Leaf, Root	Boiled	Be drunk	Rheumatoid
Jambu Leaf	<i>Psidium guajava L. (Myrtaceae)</i>	Leaf	Direct eat	eaten	diarrhea
Petai Cina Leaf	<i>Leucaena leucocephala L. (Fabaceae)</i>	Leaf	Pounded	Be smeared	Herpes

Singkong Madinah	<i>Abelmoschus manihot (Malvaceae)</i>	Leaf	Pounded	Be Lubricated	fever
Takokak	<i>Solanum torvum Swartz (Solanaceae)</i>	Fruit, Leaf	Pounded and Boiled	Be drunk	Analgesic
Kecapi	<i>Sandoricum koetjape (Burm.f.) Merr (Meliaceae)</i>	Leaf	Pounded and Boiled	Be drunk	Internal disease
Jeruk Nipis	<i>Citrus aurantifolia (Rutaceae)</i>	Fruit	Boiled	Be drunk	cough
		Leaf	Washed	Be pasted	headache
Sirsak	<i>Annona muricata L. (Annonaceae)</i>	Leaf	Boiled	Be drunk	Hypertension, stomachache, sore
Temulawak	<i>Curcuma xanthorrhiza (Zingiberaceae)</i>	Rhizome, Leaf, Fruit	Boiled	Be drunk	Internal disease, cancer, emenagoge
Kencur	<i>Kaempferia galanga L. (Zingiberaceae)</i>	Root	Shredded	Be Lubricated	Induced brith
Rane	<i>Selaginella plana (Selaginellaceae)</i>	Leaf	Pounded and Boiled	Be Lubricated	Stomachache, sore
Sambiloto	<i>Andrographis pa niculata (Acanth aceae)</i>	Leaf	Boiled	Be drunk	cough
Koresat	<i>Isotoma longiflora (Campanulaceae)</i>	Flower	Soaked	Be dripped	eye
Saga	<i>Abrus precatorius Linn (Fabaceae)</i>	Leaf	Boiled	Be drunk	cough
Puring	<i>Codiaeum variegatum (Euphorbiaceae)</i>	Leaf	Boiled	Be drunk	stomachache
Binahong	<i>Anredera cordifolia (Bacellaceae)</i>	Leaf	Boiled	Be drunk	cough
Calincing	<i>Oxalis corniculata (Oxalidaceae)</i>	Flower	Boiled	Be drunk	cough
Pegagan	<i>Centella asiatica (L.) Urban.</i>	Leaf	Boiled	Be drunk	antipyretic

	( <i>Apiaceae</i> )				
Salam Leaf	<i>Syzigium polyanthum</i> ( <i>Myrtaceae</i> )	Leaf	Boiled	Be smeared	eye
Seri Leaf	<i>Muntingia calabura</i> L. ( <i>Muntingiaceae</i> )	Leaf	Boiled	Be drunk	hypertension

Table 2. Types of Animals Utilized by Mekarbuana Village Communities

Animal	Species	Parts Used	Process	Use	Efficacy
Gecko	<i>Gecko monorchus</i>	All parts	dried	eaten	AIDS
Sand Lizard	<i>Lacerta Agilis</i>	meat	dried	eaten	Itchy
Water Lizard	<i>Varanus salvator</i>	meat	dried	eaten	Skin disease
Turtle	<i>Hystrix brachyura</i>	meat	dried	eaten	Skin disease
Sandari Warm	<i>Polyphheretima Elongata</i>	All parts	dried	eaten	Thypus
Porcupine	<i>hystrix brachyura</i>	Feces	dried	eaten	All disease

Percentage of types of natural materials used in Mekarbuana Village, the most widely used are plants as much as 90.32% and animals as much as 9.67%. Based on the plant part, the utilization of medicinal plants can be done on the roots, leaves, fruits, rhizomes, seeds, flowers, sap and tubers. The most widely used plant parts in Mekarbuana Village are leaves as much as 58.92%. Based on the animal parts used the most widely used is meat as much as 50%, then followed by all animal parts 33.34% and animal waste 16.67%. The utilization data can be seen in Figure 1.

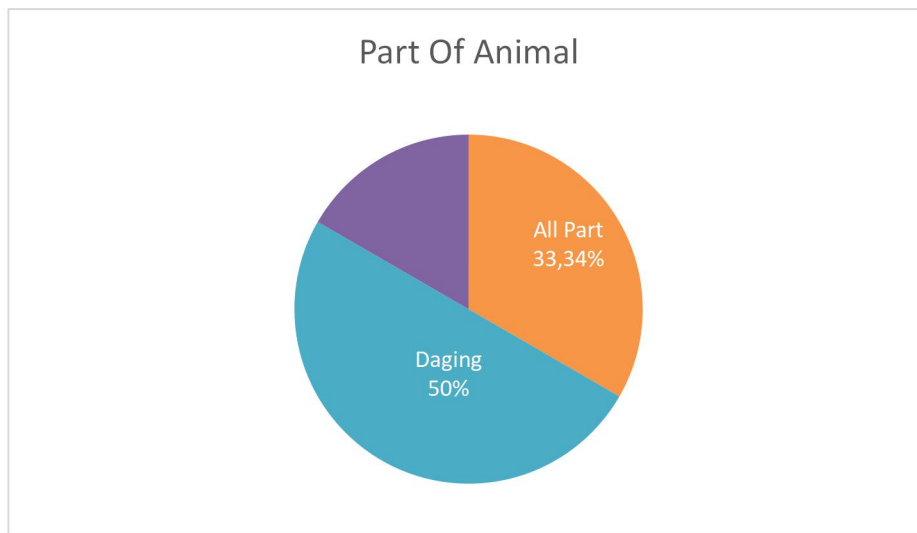
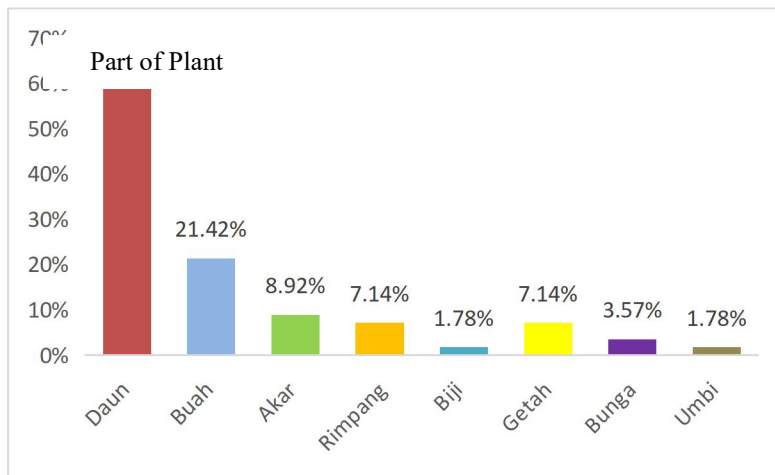
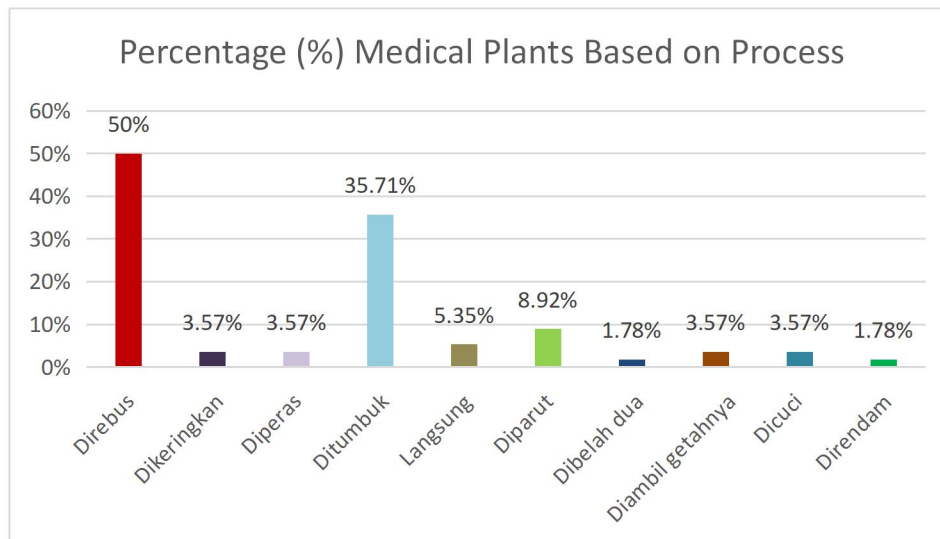


Figure 1. Diagram of Utilization of Plant Parts as Traditional Medicines in Mekarbuana Village (a) Plants (b) Animals



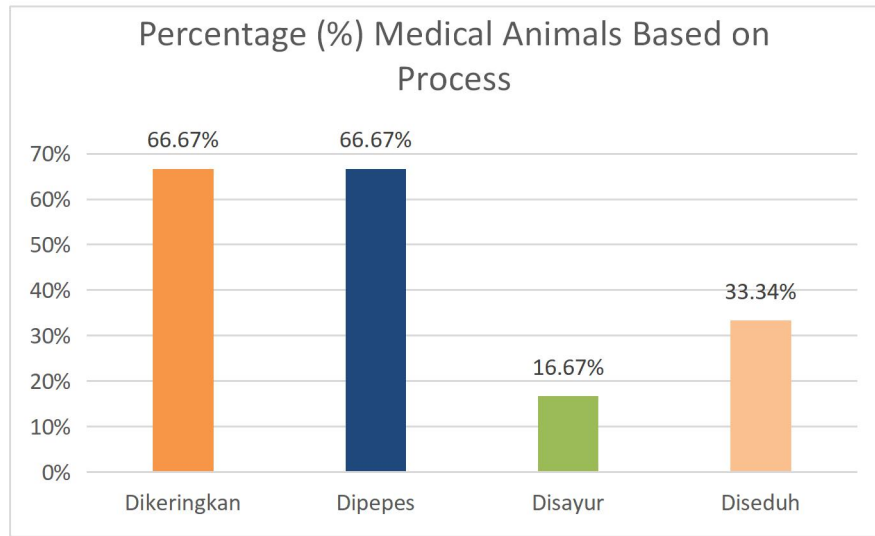
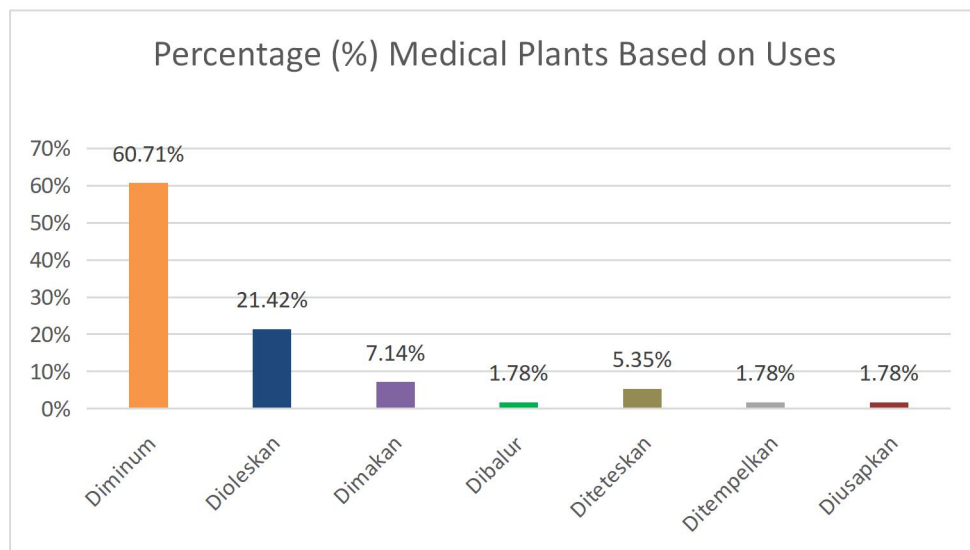


Figure 2. Utilization of Natural Materials Based on Processing Methods (a) Plants (b) Animals

Based on animal processing, animal processing as the most widely used medicine in Mekarbuana Village, Tegalwaru Subdistrict is by drying and smoothing 66.67%, then brewing (33.34%) and serving (16.67%). Based on the method of processing, the most widely used method of processing plants as medicine in Mekarbuana Village, Tegalwaru District, is boiling (50%) and pounding (35.71%). The utilization data can be seen in Figure 2.



(a)



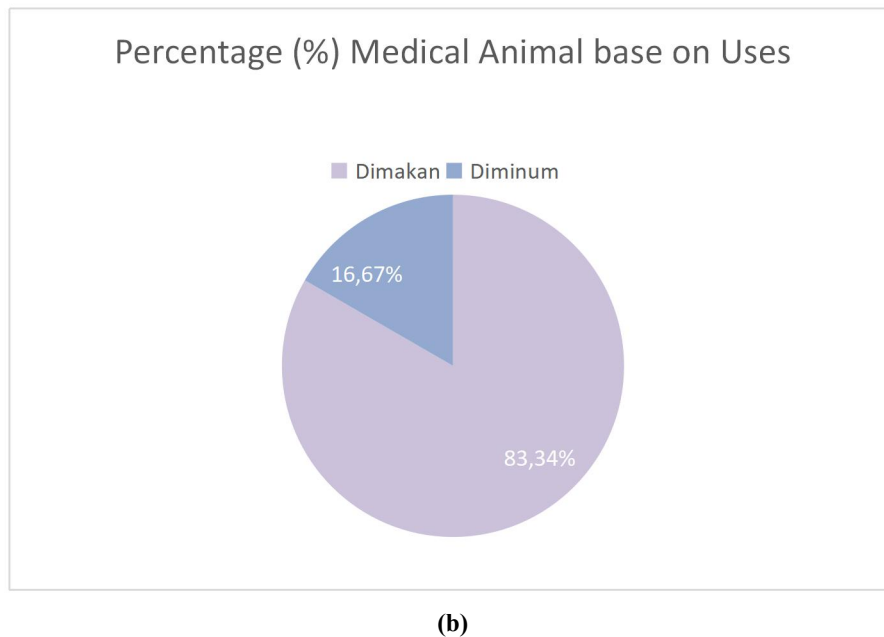


Figure 3. Utilization of Natural Materials Based on How to Use (a) Plants (b) Animals

Based on how it is used, the use of medicinal plants can be done by seven ways of use, namely the use by way of being drilled, drunk, smeared, eaten, pasted, rubbed and dropped. The use by drinking is more widely used by the community with a percentage of 60.71% and the least used is by way of being rubbed, rubbed and pasted. Based on how to use it, how to use animals as medicine is most widely carried out in Mekarbuana Village, Tegalwaru District, namely by how to eat (83.34%) and drink (16.67%). The utilization data can be seen in Figure 3.

#### IV. Conclusions

From the study of ethnomedicin in Mekarbuana Village found 56 species of medicinal plants and 6 species of animals used by the community for treatment with the most widely used plant parts, namely leaves (58.92%). The most commonly used processing method is by boiling (50%). While the most commonly used method is by drinking 60.71%. The animal part that is often used is meat as much as 50%. The most commonly used treatment method is 66.67% which is dried and pressed. While the most commonly used method is eaten by 83.34%.

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