

## Semantic Mapping of the Name Flora and Fauna at Danau Laut Mati Tasi Ana' in Landu Dialect of Rote Language

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### ABSTRACT

This study deals with the local names of floras and faunas living in Danau Laut Mati Tasi Ana's area in the Landu Sub District of Rote Regency. As language and physical nature are two inseparable entities, this study emphasizes that maintaining a language, to some extent, is equal to maintaining the existence of nature and vice versa. Documenting the names of floras and faunas in Landu Dialect of Rote Language and describing their meanings are two primary purposes of this study. The underlying principle of it is to maintain the language from being endangered. The questions addressed in this study are (1) what the local names of floras and faunas living in this lake area are? (2) to what semantic domain do the names of the floras and faunas belong? Data were obtained through a Field observation. During the observation, photos of floras and faunas were taken. A native speaker of the Landu dialect of the Rote Language who lives near the lake was consulted to get floras and faunas' local names. The data analysis follows the model presented by Suweta (2013) and Mbete et al. (2015). The data show that the floras and faunas living in Danau Laut Mati Tasi Ana's area belong to four semantic domains, i.e. the domain of food for the human being, food for the animal, herb, and building material. This study is expected to contribute to local content teaching, most notably the teaching of folk biology to young generations of Landu Dialect speakers.

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## INTRODUCTION

A language exists in and with a speech community as well as the natural environment. Several previous studies (Halliday, 1992; Sukhrani, 2001; Sukhrani, 2010; Rasna, 2013, Suweta, 2013; Kesuma, 2015; Mbete et al., 2015; Rajista 2016; Kurniawan, 2019; Sinungharjo, 2020) have coined that language and environment interact inseparably. Nowadays, the exploitation of nature

by human being is real. Human activities such as deforestation to build infrastructure to support the business sector have threatened natural ecosystems. Natural science studies have reported that the extinction of living things, including floras and faunas, is undeniable (Le Houérou, 1997; Miller et al., 2016). The extinction may consequently cause the loss of lexicons of a language as “the use of lexicons in a language is determined by the referents of the lexicon, then the loss of a referent will result in the loss of the lexicon as well” (Almos et al., 2018). Thus, documenting floras and faunas’ names in a particular local language is deemed necessary as it may become a positive effort for nature preservation and language maintenance.

The present study attempts to document the names of floras and faunas living in the waters and periphery of Danau Laut Mati Tasi Ana-a lake located in Landu Sub-District of Rote District. The names are in Landu Dialect of Rote Language. Landu Dialect is spoken by Rotenese occupying the eastern part of Rote Island. Several studies have been conducted on Rote Language (Balukh, 2018; Ingguoë, 2015; Loe, 2017), which pay attention to the grammatical description, but nothing has focused mainly on Language and physical environment.

This study is inspired by the study conducted by Suweta (2013), focusing on revitalizing the flora terms in Bahasa Bali. The terms are classified into religious ceremonies, building material, mystic belief, traditional medicine, food, and farming activities. The study is interesting because it may contribute to local content teaching and, most notably, folk biology at schools. Folk biology “refers to the system of names and categories (nomenclature) that ordinary people in different cultures use for talking about living things.” (Goddard, 2011, p. 196).

A similar study is also conducted by Mbete et al. (2015). A part of their investigations is on the lexicons of floras and faunas in the Lio language. The lexicons are recorded, and their morphological forms and meanings are described based on their functions or roles as living things.

Following the model of these two studies, the present study addresses two research questions. First, what are the local names of floras and faunas living in the area of Danau Laut Mati Tasi Ana? The local names refer to the lexicons that people of a particular speech community, in this case, the speaker of Landu dialect of Rote Language, use to describe their living environment’s reality. The lexicons represent their knowledge and experience and their interrelation with their physical environment (Mbete et al., 2015).

The second question is what semantic domain do the floras and faunas belong to? Semantic deals with the meaning of words and/or sentences independent of any specific context (Borjesson 2011, see also Bram & Avillanova, 2019). Furthermore, the semantic domain may be defined as “an organized set of words, all on the same level of contrast, that refers to a single conceptual category, such as kinship terms, animal names, colour terms, or emotion terms” (Romney et al., 2000). This study maps the semantic domain of the floras and faunas based on local knowledge of the speakers of the Landu dialect of Rote Language as no previous study has been done on this language.

This study is expected to contribute to language maintenance, local language instruction at schools, and strengthening people’s knowledge of physical nature or, most notably, the folk biology in the area where they live.

## METHODS

This qualitative study aims to map the lexicon of flora and fauna found at Lake Danau Laut Mati Tasi Ana' in Rote Island. Three-day fieldwork has been carried out to collect the present data. By roaming the Lake area, several pictures of Flora and Fauna were taken with a Canon Legria camera. To list the floras and faunas' local names, a native speaker of Landu dialect who lives nearby the lake was consulted. The names and the functions of flora and fauna are recorded. The data are classified based on their semantic domains. The analysis follows the model proposed by "the well-known cognitive anthropologist Brent Berlin and his associates who underlined that ethnobiological nomenclature represents a natural system of naming that reveals much about how people conceptualize the living things in their environment." (Goddard, 2011, p. 196).

## RESULTS AND DISCUSSION

This study reveals that the floras and faunas living in Lake Laut Mati Tasi Ana's area belong to four semantic domains: Food for Human Being, Food for the animal, Herb, and Building Material.

### Food for Human Being

Human beings undeniably need foods to sustain life. People's knowledge of their environment determines the food source about what kinds of food are worth consuming. The foods may be obtained from lands and/or water. In Danau Laut Mati Tasi Ana' Landu, people have discovered many floras and faunas edible for human beings. Those floras and faunas are named in Landu Dialect of Rote Language as follows:



Picture 1: *dadafu ana'*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Dadafu ana'* [dadafu aŋa?] is translated as *dadafu* =clean and *ana'* = small. It belongs to the flora family and a kind of seaweed. It usually grows on reefs. It can be eaten raw. Alternatively, sometimes, people mix it with vinegar to make *sayur lawar* (sour vegetable).



Picture 2: *lopu*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Lopu* [lopū] is literally translated as moss in English. It belongs to the flora family. Like *Dadafu ana*, it is a kind of seaweed that is edible. The way it is prepared is also the same as *dadafu ana*. It always grows on the wall of reefs.



Picture 3: *kuru boko*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Kuru boko* [kuru boko] is literally translated as rounded grass (*kuru*= grass and *boko*=rounded). It is another seaweed that is edible. The way it is prepared is the same as *dadafu ana*' and *lopu*. It also grows on the wall of reefs.



Picture 4: *laka da'i*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Laka da'i* [laka da'i] is literally translated as head dirt or dandruff (*laka*=head and *da'i*=dirt). It also belongs to edible seagrass. The way it is prepared is the same as the previous seagrass above. It also grows on the reefs.



Picture 5: teteku

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

**Teteku** [tætæku] is a kind of seaweed that grows on the sand. It can be eaten raw, but mostly it is cooked. It is different from the other floras above. The word *teteku* is a monomorphemic word that refers to the object that it names.



Picture 6: kokoe' busa.

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Kokoe' busa* [kɔkɔæ? busa] is translated as dog snail (*kokoe*=snail & *busa*=dog). It is a kind of seashell. To consume it, it needs to be boiled.



Picture 7: *kokoe' keo'*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Kokoe' keo'* [kōkōæ? kæø?] is literally translated as black snail (*kokoe'* = snail *keo'* = black). It is a kind of seashell. Like *kokoe' busa* it needs to be boiled if one wants to consume it.



Picture 8: *lolosi bawina*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Lolosi bawinai* [lōlōsi bawina] is literally translated as big *lolosi*. It is also a kind of seashell. Like the previous seashells, it needs to be boiled if one wants to consume it.



Picture 9: *payaka* taken  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Payaka* [pajaka] is a grey crane. It belongs to aves class. It eats fish. Its meat is edible.



Picture 10: *temei*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Temei* [temeɪ] is a kind of swan. It also eats fish. Like *payaka* it is also edible.

### Foods for Animal

As living things, animals also need food to sustain life. They adapt themselves to the environment where they live by. Lake Danau Laut Mati Tasi Ana' provide a variety of food derived from different floras and faunas as named in Landu Dialect of Rote Language as follows:



Picture 11: *lamudo*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

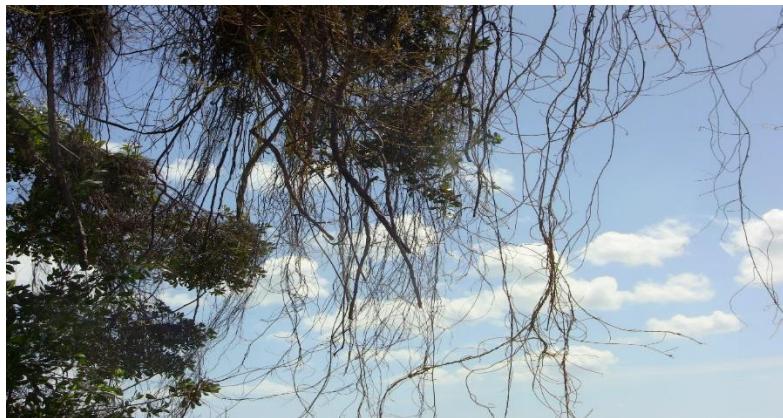
*Lamudo* [lamudo] is a kind of seagrass. It grows in the water. It is the feed for deer.



Picture 12: *nau tasi*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Nau tasi* [nau tasi] is literally translated as seagrass (*Nau*=grass & *Tasi*= sea). It also grows in the water. It is the feed for fish, deer, goat, sheep, buffaloes and cows.



Picture 13: *memeko*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Memeko* [mæmækɔ] is the feed for goat, sheep and cow.



Picture 14: *paranao tasi*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Paranao tasi* [paranao tasi] is literally translated as sea paranao. It is the feed for pig.

### **Medicinal Herb/Plant**

Medicinal plants are widely used in traditional medicine in underdeveloped and developing countries (Sholikhah, 2016). Indonesia is one of the countries that is famous for its traditional herbs. A study by Taek et al. (2018) on Ethnomedicinal plants used for the treatment of Malaria in Malaka, West Timor-Indonesia reveals that people of Malaka use 44 plants belonging to 25 families for the treatment of malaria. The study further adds that the people of Malaka have a culture of ethnomedicine based on local plants. A similar phenomenon is also evident for Landu people who inherit local knowledge about medicinal plants that can be used to treat various illnesses.



Picture 15: *lulu ai pila*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Lulu ai pila* [*lulu*: ai *pila*] is literally translated as red tree resin (*lulu*= resin, *ai*=tree, & *pila* =red). Its leaf and bark can be used to cure the wound.



Picture 16: *kai lafo*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Kai lafo* [*kai lafo*] is literally translated as mouse wood/tree (*kai*=wood/tree & *lafo*=mouse). Its boiled root and leaf can be used to reduce fever.



Picture 17: *buna fula*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Buna fula* [*buna fula*] is literally translated as white flower (*buna*=flower & *fula*=white). Its leaf is commonly used to cure the wound.



Picture 18: *kai nyela*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Kai nyela* [kai næla] is literally translated as nyela wood/tree. It is commonly used for post-natal treatment. After delivery, a mother is usually bathed with its boiled leaves and bar.



Picture 19: *faloa*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Faloa* [fæləa] is commonly used to cure anaemia. The water of its bar can increase haemoglobin.



Picture 20: *buah sabu*  
Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Buah sabu* [buɑ: sabu] is literally translated as Sabu Fruit/ the fruit from Sabu. It is commonly used to cure kidney disease.



Picture 21: *patola nura*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Patola nura* [patola nura] is literally translated as jungle patola (*nura*=jungle). It is used to clean toxins from our body.



Picture 22: *ai bau wana*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Ai bau wana* [ai bau wana] is literally translated as a small bau tree. Its leaf can be used to cure the wound.



Picture 23: *ai kela*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Ai kela* [ai kæla] is literally translated as *kela* tree. It is used to cure stomachache and fever by drinking its boiled bar and leaf water.

### **Building Material**

The use of the plant as a building material is common almost everywhere. Using plant-based building material is advisable as it may help reduce global warming and support energy savings (Amziane & Sonebi, 2016). For most people who live in rural areas, including Landu people, the plant-based building material is more accessible than metal-based building material. The following is a kind of plant that grows in Lake Danau laut Mati Tasi Ana's area.



Picture 24: *ai piko*

Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

*Ai Piko* [ai pikɔ] is translated as piko wood/tree. It is a kind of mangrove. People use the bark of this tree for building material.

It is worth noting that, morphologically, the floras' lexical structure and faunas' names vary. Some of the floras and faunas' names are multi-word/multi-morphemic word /Compound word, and the other is a single word/monomorphemic word. The following table classifies the two categories.

No	Multi- Morphemic word/Compound word	Monomorphemic word
1	<i>Dadafu ana</i> <i>dadafu</i> =clean and <i>ana</i> = small	<i>Lopu</i> = moss
2	<i>Kuru boko</i> ( <i>kuru</i> = grass and <i>boko</i> =rounded).	<i>Teteku</i> =seaweed growing on the sand
3	<i>Laka da'i</i> =dandruff ( <i>laka</i> =head and <i>da'i</i> =dirt).	<i>Payaka</i> =grey crane
4	<i>Kokoe busa</i> ( <i>kokoe</i> =snail & <i>busa</i> =dog).	<i>Temei</i> =a kind of swan
5	<i>Kokoe' keo'</i> ( <i>kokoe'</i> = snail <i>keo'</i> =black).	<i>Lamudo</i> = a kind of seagrass
6	<i>Lolosi bawina</i> <i>Lolosi</i> =shell & <i>bawina</i> = big	<i>Memeko</i> =a kind of tree used as the feed for goat, sheep and cow.
7	<i>Nau tasi</i> ( <i>Nau</i> =grass & <i>Tasi</i> = sea).	<i>Faloa</i> =a kind of tree that is commonly used to cure anaemia.
8	<i>Paranaao tasi</i>	--

	<i>Paranao= -- tasi =sea</i>	
9	<i>Lulu ai pila</i> = red tree rasin ( <i>lulu</i> = rasin, <i>ai</i> =tree, & <i>pila</i> =red)	--
10	<i>Kai lafo</i> ( <i>kai</i> =wood/tree & <i>lafo</i> =mouse).	--
11	<i>Buna fula</i> = white flower ( <i>buna</i> =flower & <i>fula</i> =white).	--
12	<i>Kai nyela</i> is literally translated as <i>nyela</i> <i>kai</i> = wood/tree & <i>nyela</i> --	--
13	<i>Buah sabu</i> = Sabu Fruit/ the fruit from Sabu	--
14	<i>Patola nura</i> jungle patola ( <i>nura</i> =jungle).	--
14	<i>Ai bau wana</i> small bau tree <i>Ai</i> =tree, <i>bau</i> =bau, <i>wana</i> =small	--
15	<i>Ai kela</i> is literally translated as <i>kela</i> <i>ai</i> =tree <i>kela</i> = kela	--
16	<i>Ai Piko</i> <i>ai</i> =wood/tree <i>piko</i> =piko	--

Table 1: Names of Flora and Fauna  
 Field Work in July 14<sup>th</sup>-15<sup>th</sup>, 2020 by Toni, Nurak & Sombo [source]

As the table shows that the names with multi-morphemic word/compound word outnumber the names with a monomorphemic word. The multi-morphemic names consist of two words, while the other three words. Many of the flora names begin with the word *ai* (and its variation *kai*), meaning wood/tree. Besides, some names are still untranslateable (this suggests a future study).

All in all, almost all the floras and faunas found in the area of Danau Laut Mati Tasi Ana' are labelled with local names, and their functions are well described. This indicates that the speakers of Landu dialect have established a good rapport with the physical environment. However, this good rapport is in a state of flux as people are offered choices. For instance, in the health sector, people are presented with choices of using western medicine or herbs derived from the natural environment. When people are more inclined to use Western medicine, the latter might be neglected or worse; they might be unrecognized. However, the proper relation between the people of Landu and their physical environment should be maintained. One way of doing it is by introducing the floras and faunas and their functions to the young generation. One proper channel for doing it is through formal education. School curriculum should accommodate the local language teaching (Landu Dialect) in which the local terms of flora and faunas may be introduced to students. Bring students to immerse themselves with the nature of the lake Danau Laut Mati Tasi Ana' is a real action that should be proposed.

## CONCLUSION

This result of the analysis shows that the floras and faunas living in Danau Laut Mati Tasi Ana's area are classified into four semantic domains (food for the human being, food for the animal, herb, and building material. Almost all flora and fauna found in the area have had their local

names except for *buah sabu* (derived from Malay, which means the fruit of Sabu). Considering their functions, all flora and fauna are useful for living things, mainly human beings. Similar to Suweta (2013) 's and Mbete et al. (2015) 's, this study contributes to strengthening local knowledge that is beneficial for physical nature preservation, language maintenance and ultimately for the prosperity of human life. Practically, this study's result may become the source of information for the communities who live nearby the lake to obtain their food supply, food for their livestock, medicinal herbs, and building materials. The education sector may be used for teaching local content and, most notably, folk biology in Landu Dialect at schools.

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