

The Flora Lexicon for the Reproductive Health of the Tetun: An Ecolinguistic Perspective

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Abstract This study aimed to describe the flora lexicon for the reproductive health of the Tetun from an ecolinguistic perspective. The method was descriptive qualitative with an ethnolinguistic approach. The data were lexicon flora for female reproduction obtained from community leaders and traditional healers. Data collection techniques were carried out using observation, interviews, note-taking, and a literature study. Data analysis was carried out by classifying the forms, the linguistic form, and ecological categories. The results showed that there were 53 flora lexicons for reproductive health in the form of root words and derived words. Based on linguistic category, the 53 flora lexicons are classified as having animate meaning. Based on the ecological category, the 53 flora lexicons are biotic plants. Utilization of flora ingredients for reproductive health includes rhizomes, tubers, roots, bark, leaves, leaf shoots, flowers, fruits, and seeds. The method of processing is by boiling, cooking, pounding, chewing, drinking, eating, smearing, sticking, spraying, and pouring on the affected part.

Keywords: Lexicon, Ecolinguistic, Reproductive health, Tetun ethnic, Language

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1. Introduction

Plants have various benefits for human health and well-being, especially as sources of natural or traditional medicine (Mabel et al., 2016). Traditional medicine is part of the nation's culture and has been used by the community for centuries. It involves the use of a flora lexicon, which are words or expressions that refer to plants or plant parts that have medicinal properties or functions (Isnawati & Sumarno, 2021; Leoti & Verpoorte, 2011; Lu et al., 2022). Flora lexicon can reveal the linguistic and cultural aspects of a society's knowledge, beliefs, and practices regarding reproductive health, which is a state of complete physical, mental, and social well-being in all aspects related to reproduction (Cabada-Aguirre et al., 2023). Ecolinguistics

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is a perspective that studies the relationship between language, culture, and environment and how they influence each other (Haugen, 2001). Previous studies have explored the flora lexicon for reproductive health in various contexts and cultures around the world (Hestiyana, 2020; Khalid & Ahmed, 2023; Makombe et al., 2023; Ogunlakin et al., 2023). However, there is still a lack of research on this topic in Indonesia, especially among the Tetun tribe in Malaka Regency, East Nusa Tenggara Province.

The Tetun tribe is one of the ethnic groups that still use the flora lexicon for reproductive health as an alternative to medical treatment. The Tetun people have a rich and diverse knowledge of medicinal plants that they obtain from forests or gardens around them. They use various methods to process and apply these plants for different reproductive health issues, such as vaginal discharge, menstruation, syphilis, infertility, and cervical cancer. The Tetun people's use of the flora lexicon for reproductive health is influenced by their natural and cultural environment, which includes their geographical location, climatic conditions, religious beliefs, social norms, and ancestral traditions. However, this local knowledge is at risk of being lost or forgotten due to various factors, such as modernization, deforestation, language shift, or lack of documentation.

This study aims to describe and analyze the preservation of the flora lexicon in traditional formulations for the reproductive health of the Tetun from ecolinguistic and ethnolinguistic perspectives. The research questions are: (1) What are the forms and meanings of the flora lexicon for reproductive health among the Tetun people? (2) How are these flora lexicons used and processed by the Tetun people for reproductive health purposes? (3) How are these flora lexicons related to the linguistic, cultural, and environmental aspects of the Tetun people? The study uses a descriptive qualitative method with an ethnolinguistic approach. The data are collected from community leaders and traditional healers using observation, interviews, note-taking, and literature study. The data are analyzed by classifying them into forms, linguistic categories, ecological categories, utilization methods, and processing methods. The expected outcomes of this study are to provide a comprehensive description and analysis of the flora lexicon for reproductive health among the Tetun people from an ecolinguistic perspective, to contribute to the preservation and transmission of this local knowledge among the current and future generations, and to enrich the fields of ecolinguistics, ethnolinguistics, and ethnomedicine with new insights and data from an under-researched context and culture.

2. Theoretical Framework

From an ecolinguistic perspective, language and its speaking community are seen as organisms that live systemically in a life with other organisms (Mbete, 2013). Furthermore, Mbete (2013) reveals that the diversity of vocabulary (and the diversity of languages in an environment), even in one language, is also related to the environmental conditions of that language. According to Sapir (1924), the physical environment of a language consists of geographical characters as the topography of a country, related to climate, including flora and fauna, rainfall, and natural resources, which are the source of life (as cited in Priana, 2017). Thus, the vocabulary contained in the language will differ from one another and depend on the socio-culture and the environment in which the language is used.

Fill and Muhlhausler (2006) state that these interrelations exist merely on the level of the vocabulary and not, for example, on that of phonology or morphology. This suggests that the scope of ecolinguistics is the relationship between language and the environment in the realm of the lexicon, not at the phonological or morphological level. The same thing was also expressed by Haugen (2001), that language only lives in the environment of the people who own the language and culture that exist in society. In addition, language also only lives in the natural environment, even though it can only be traced through the lexicon.

Suktiningsih (2016) reveals that language and ecolinguistics are part of culture, social formation, and praxis. The concept of social praxis refers to human social activity, which is considered a process that is considered to have meaning and is based on values. According to Sapir, the language environment in ecolinguistics includes the physical and social environment (as cited in Fill & Muhlhausler, 2006). The physical environment includes geography, which consists of the physical, such as the topography of a country (coastal, valleys, land, highlands, mountains), climate, and intensity of rainfall, the economic basis of human life consisting of fauna, flora, and mineral resources. Meanwhile, the social environment

consists of various societal forces that shape the thoughts and life of each individual, namely religion, ethics, forms of political organization, and the arts.

Ecolinguistic studies suggest that language communicates with ecology. It explores language in both social and ecological environments (Ain et al., 2023). The physical environment presents language with various social conditions that will affect speakers of language psychologically in using their language. According to Haugen, ecolinguistic studies have parameters, namely interrelationships (language and environment interrelation), environment (physical and socio-cultural environment), and diversity (language and environmental diversity) (as cited in Fill & Muhlhausler, 2006). Thus, ecolinguistics examines the reciprocal relationship between language and nature or the surrounding environment and combines ecological and linguistic concepts.

Sapir explains that vocabulary reflects the physical environment and human social environment (as cited in Fill & Muhlhausler, 2006). The complete vocabulary of a language is seen as a complex inventory. The vocabulary reflects the character limits of the physical environment and the cultural characteristics of the people who use them. Furthermore, Hopkins (2022) said that word has a psychological and social connection. Zychlinsky and Kagan (2022) stated that, in words, there are cultural variables that are able to reveal the background of the speaker's environmental life. Even Kashiha (2023) pointed out that vocabulary displays styles and disciplines. Sundueva (2019) affirmed that the word is a symbolic element that indicates the nation. Malova and Danich (2021) provided information that preserved words will be able to maintain a culture related to aspects contained in the concept of the word. Pansat and Khalikova (2023) added that the word has a picture of man and his world because the word has an element of expression of human emotions. Furthermore, Firman et al. (2003) said that through words, we will know the environment humans come from because, based on ethnolinguistic vitality, the words represent three factors, namely social group status, demographic characteristics of the group, and institutional support. Aikulova et al. (2023) also explained that ethnocultural views of word expression deal with linguistics and culture. It encompasses the collective beliefs, values, customs, traditions, and practices that distinguish a particular ethnic group or culture. The cultural stereotypes and images are reflected in the linguistic representation in the form of word concepts; for example, the word *laziness* in the Kazakh language, the concept of laziness is represented by linguistic units and symbols that have symbolic, standard, stereotypical, and figurative-metaphorical meanings.

Chaer (2007) says that the term lexicon itself comes from the ancient Greek lexicon, which means 'word', 'speech', or 'speech event'. Then, Pateda (2009) states that if a word's meaning can stand itself more fixed, for example, in certain dictionaries, it is called lexical meaning, semantic meaning, or extra meaning. Wijana (2015) suggests that a collection of lexemes belonging to a language is called a language lexicon. Furthermore, lexemes can be interpreted as language units that have the ability to refer to and predict (Wijana, 2015). The lexicon is vocabulary. The units of the lexicon are called lexemes, which are meaningful units of language form. If lexicon is equated with vocabulary or vocabulary, then lexemes can be called the same as words (Chaer, 2013). The same thing was also stated by Kridalaksana (2011) that the lexicon includes: (1) the language component which contains all the information on the meaning and use of words; (2) vocabulary or wealth of words owned by a person; and (3) word order or word lists arranged like a dictionary whose definitions are abbreviated and more practical. Kridalaksana (2011) defines the lexicon as 1) a language component that contains all information about the meaning and use of words in the language; 2) the richness of words owned by a speaker, writer, or a language vocabulary; and 3) word lists arranged like a dictionary, but with brief and practical explanations. The richness of lexicons related to the environment is discussed under the ecolexicon concept (Khotimah et al., 2023). The flora ecolexicon is a wealth of plants that have a referential function, namely lexicons whose references can actually be seen because they are still remembered by speakers, but their existence is threatened with extinction. This is because the lexicon is rarely used according to its function.

The theory used to solve this research problem is based on an ecolinguistic perspective, which is a blend of linguistic and ecological theories. The linguistic theory is in the form of the lexicon that refers to the concept proposed by Kridalaksana (2011), as the lexicon in this study is a list of words about medicinal flora with explanations. The ecological theory refers to the concept of the environment as stated by

Sapir (as cited in Fill & Muhlhausler, 2006), which is the physical and social environment related to the geographical environment where the Banjar people use medicinal plants.

3. Methodology

3.1. Materials

Data had been obtained from as many as 53 flora lexicons used by the Tetun ethnic for reproductive health. The forms of flora lexicons found were in the form of flora lexicons: basic forms were 21 lexicons, and derivative forms were 32 lexicons. The flora lexicon in the form of basic words were (1) abano, (2) atok, (3) bakat, (4) bakumoru, (5) balidin, (6) donu, (7) feu, (8), fuik, (9) fuka, (10) kabanase, (11) kakeu, (12) kanuan, (13) kinur, (14) koiwa, (15) lumut, (16) mahar, (17) nawa, (18) nirok, (19) sakaer, (20) silasi, dan (21) sukabi.

The lexicon in the form of derived words were 32 lexicons, including: (1) ai na, (2) ai buan liman, (3) ai manu matan, (4) ai matamutik tasi, (5) asukar mutin, (6) badut malaka, (7) badut malaka mean, (8) bunak mean, (9) dila butak, (10) funan mean, (11) hedan fuik, (12) kabebar etun, (13) kaboen mean, (14) kafiru mutin, (15) kinun mutin, (16) klatu metan, (17) klitin mean, (18) kmodo fuan, (19) lafaek na'nan, (20) lalitin manek, (21) li'is tahan, (22) li'is mutin, (23) lisa maromak, (24) manumeaklotu, (25) masimanas ke'e, (26) pecut kuda, (27) puteri malu, (28) sakiki asu ikun, (29) sakiki mean, (30) talifehuk kasoruk, (31) tali manu nunun, dan (32) tapak dara. In the linguistic category, the 53 lexicons were classified as animate. Then, in the ecology category, 53 lexicons included biotic plants.

The flora lexicons were obtained through primary and secondary data sources. Primary data sources were obtained through participant observation. Then, to complete the primary data, secondary data in the form of library sources was also used. The primary data source in this study was the lexicon of flora in traditional herbs used for reproductive health obtained from community leaders and traditional medicine in Kobalima District, Malacca Regency, East Nusa Tenggara.

3.2. Procedure

3.2.1. Data Collection

This study used a descriptive qualitative method. Mahsun (2013) states that descriptive research examines the meaning, description, clarification, and placement of data according to their respective contexts, and the data is described in the form of words. Qualitative research is a research method used to examine natural objects. Researchers are key instruments, data collection techniques are carried out in a triangulation (combined) manner, data analysis is inductive, and the results of qualitative research emphasize meaning rather than generalization (Sugiyono, 2014). Then, the anthropolinguistic and ecolinguistic approaches will study language in terms of the language found in society.

Data collection techniques were carried out using observation, interviews, note-taking, and literature study. Observation techniques were carried out on the life of the Tetun Tribe in Kobalima District in October 2022.. After observing line by line, the technique used next was the note-taking technique. Mahsun (2013) states that the note-taking technique is an advanced technique that is carried out when the research applies the observation method with advanced techniques.

3.2.2. Data Analysis

Data analysis was carried out by the following procedures: (1) data reduction, namely classifying the forms of the flora lexicon and classifying data based on linguistic and ecological categories; (2) analyzing data using qualitative methods; (3) presenting data with tables; and 4) drawing overall conclusions and tentative verification, both by data triangulation and by triangulation of data networking methods and techniques.

To ensure the validity of the data and the degree of accuracy of the information obtained, triangulation was used in the form of sources and methods. Triangulation source was done by comparing (cross-checking) information that had been obtained from key informants to see the relationship of information

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obtained. Furthermore, the method was to check the results of information obtained from key informants and additional informants by accurately tracing the interview results of these informants.

Furthermore, Sudaryanto (2015) states that after the analysis is carried out, the results of the data analysis can be presented using two methods, namely the informal method and the formal method. In this case, the result of data analysis used to describe the preservation of the flora lexicon in traditional ingredients for the reproductive health of the Tetun Tribe in Malaka District is an informal method, namely formulation with words or presentation in the form of a description of the sentence.

4. Results

Based on the data found, it will be explained, among others: (1) the form of the flora lexicon in traditional ingredients for reproductive health used by the Tetum, and (2) the lexicon of flora in traditional ingredients based on linguistic and ecological categories. The analysis is as follows.

4.1. Forms of the Flora Lexicon in Traditional Herbs for Reproductive Health

The results of the analysis showed that there were 53 flora lexicons used by the Tetun in addressing reproductive health. The names of the flora are ancestral heritage passed down from generation to generation by the Tetun tribe. This can be seen in Table 1.

Table 1The Lexicon of Flora in Traditional Herbs for Reproductive Health Used by the Tetun Tribe in Malaka Regency

No.	Lexicon of Flora	Common name	Scientific name	
140.	(in Local Names)	(in Indonesian)		
1	Abano	Kepuh, kelumpang	Sterculia foetida	
2	Ai na	Sono kembang	Pterocarpus indicum	
3	Ai buan liman	Gegedangan	Ficus hirta	
4	Ai manu matan	Kedondong hutan	Spondias pinnata	
5	Ai matamutik tasi	Landep	Barleria cristata	
6	Asukar mutin	Jabungan	Siegesbeckia orientalis	
7	Atok	Sirsak	Annona muricata	
8	Badut malaka	Jarak pagar	Jatropha curcas	
9	Badut malaka mean	Jarak merah	Jatropha gossypifolia	
10	Bakat	Bakau	Rhizophora stylosa	
11	Bakumoru	Bidara laut	Strychnos ligustrina	
12	Balidin	Belimbing	Avarehoa bilimbi	
13	Bunak mean	Bayam merah	Alternanthera amoena	
14	Dila butak	Maja	Aegle marmelos	
15	Donu	Kayu Kapur	Melanolepis multiglandulosa	
16	Feu	Teki kunci	Garuga floribunda/kayu kambing,	
10			kalau teki Cyperus rotundus	
17	Fuik	Sirih	Piper battle	
18	Fuka	Biduri	Calotropis gigantea	
19	Funan mean	Jengger ayam	Celosia cristata	
20	Hedan fuik	Pandan duri	Pandanus tectorius	
21	Kabanase	Keras Tulang	Wendlandia burkilli	
22	Kabebar etun	Sangketan	Heliotropium indicum	
23	Kaboen mean	Turpeth	Operculina turpethum	
24	Kafiru mutin	Gempol	Nauclea orientalis	
25	Kakeu	Cemara	Casuarina junghuhniana	
26	Kanuan	Pandan wangi	Pandanus amaryllifolius	
27	Kinun mutin	Kunyit putih	Curcuma zedoaria	
28	Kinur	Kunyit	Curcuma domestica	
29	Klatu metan	Pir Berduri	Opuntea sp.	
30	Klitin mean	Mentaos	Wrightia pubescens	
31	Kmodo fuan	Labu kuning	Curcubita moschata	
32	Koiwa	Jambu biji	Psidium guajava	

33	Lafaek nanan	Lidah buaya	Aloe vera	
34	Lalitin manek	Tumbuhan anting-anting	Acalypha indica	
35	Li'is tahan	Bawang dayak	Eleutherine palmifolia	
36	Li'is mutin	Bawang putih	Allium sativum	
37	Lisa maromak	Umbi bawang dayak	Eleutherina americana	
38	Lumut	Lumut daun	Aerobryopsis longissima	
39	Mahar	Lowa	Ficus variegata	
40	Manumeaklotu	Meniran hijau	Phylanthus niruri	
41	Masimanas ke'e	Jahe	Zingeber officinale	
42	Moat kuda ruin	Enau	Arenga pinnata	
43	Nawa	Mahang/Mara	Macaranga tanarius	
44	Nirok	Pecut Kuda	Stachytarpheta jamaicensis	
45	Putri malu	Putri malu	Mimosa pudica	
46	Sakaer	Asam	Tamarindus indica	
47	Sakiki asu ikun	Ekor kucing	Uraria lagopodioides	
48	Sakiki mean	Hahapaan	Flengimia strobilifera	
49	Silasi	Kemangi	Ocinum basilicum	
50	Sukabi	Kesambi	Schleichera oleosa	
51	Talifehuk kasoruk	Scarlet Creeper	Ipomoea hederifolia	
52	Tali manu nunun	Patuk manuk	Thunbogia alata	
53	Tapak dara	Tapak dara	Catharantus roseus	

Based on the data, there were 53 flora lexicons used by the Tetun ethnic for reproductive health. The flora lexicon *sakaer*, *fuik*, *silasi*, and *kinur* were used to overcome vaginal discharge and overcome irregular menstruation. The flora lexicon *li'is tahan*, *bunak mean*, and *funan mean* were used to treat blood urine. Furthermore, to overcome vaginal cancer used, flora lexicon *balidin*, *kinur mutin*, *atok*, and *tapak dara*.

4.2. Lexicons of Flora in Traditional Medicine Based on Linguistic and Ecological Categories

Based on linguistic and ecological categories, the lexicons are classified as follows.

 Table 2

 Flora Lexicons for Reproductive Health Based on Linguistics and Ecology

No.	Flora Lexicons	Linguistic Category		Ecology Category	
		Morphology	Semantics	Biotic	Abiotic
1	Abano	Basic form	Animate	Biotic	-
2	Ai na	Derivative form	Animate	Biotic	-
3	Ai buan liman	Derivative form	Animate	Biotic	-
4	Ai manu matan	Derivative form	Animate	Biotic	-
5	Ai matamutik tasi	Derivative form	Animate	Biotic	-
6	Asukar mutin	Derivative form	Animate	Biotic	-
7	Atok	Basic form	Animate	Biotic	-
8	Badut malaka	Derivative form	Animate	Biotic	-
9	Badut malaka mean	Derivative form	Animate	Biotic	-
10	Bakat	Basic form	Animate	Biotic	-
11	Bakumoru	Basic form	Animate	Biotic	-
12	Balidin	Basic form	Animate	Biotic	-
13	Bunak mean	Derivative form	Animate	Biotic	-
14	Dila butak	Derivative form	Animate	Biotic	-
15	Donu	Basic form	Animate	Biotic	-
16	Feu	Basic form	Animate	Biotic	-
17	Fuik	Basic form	Animate	Biotic	-
18	Fuka	Basic form	Animate	Biotic	-
19	Funan mean	Derivative form	Animate	Biotic	-
20	Hedan fuik	Derivative form	Animate	Biotic	-
21	Kabanase	Basic form	Animate	Biotic	-

Kabebar etun Derivative form Animate **Biotic** Animate 23 Kaboen mean Derivative form **Biotic** 24 Kafiru mutin Derivative form Animate Biotic 25 Kakeu Basic form Animate Biotic _ 26 Kanuan Basic form Animate Biotic 27 Kinun mutin Derivative form Animate Biotic 28 Kinur Basic form Biotic Animate 29 Klatu metan Derivative form Animate Biotic 30 Klitin mean Derivative form Animate **Biotic** 31 Kmodo fuan Derivative form Animate **Biotic** 32 Koiwa Basic form Animate **Biotic** 33 Lafaek nanan Derivative form Animate **Biotic** 34 Lalitin manek Derivative form **Biotic** Animate 35 Li'is tahan **Biotic** Derivative form Animate 36 Li'is mutin Derivative form Animate **Biotic** 37 Lisa maromak Derivative form **Biotic** Animate 38 Lumut Basic form Biotic Animate 39 Mahar Basic form Animate Biotic Manumeaklotu Derivative form Animate Biotic Masimanas ke'e Derivative form Animate Biotic 42 Nawa Biotic Basic form Animate 43 Nirok Basic form Animate **Biotic** Pecut kuda 44 Derivative form Animate Biotic 45 Putri malu Derivative form **Biotic** Animate 46 Sakaer Basic form Animate **Biotic** 47 Sakiki asu ikun Derivative form **Biotic** Animate 48 Sakiki mean Derivative form **Biotic** Animate 49 Silasi Basic form Animate Biotic 50 Sukabi Basic form Animate **Biotic** 51 Talifehuk kasoruk Derivative form Animate Biotic Derivative form 52 Tali manu nunun Animate **Biotic** 53 Tapak dara Derivative form Biotic Animate

The flora lexicon used by the Tetun ethnic for reproductive health can be categorized into two. The linguistic category consisting of 53 flora lexicons is classified as animate. Then, in the ecology category, 53 lexicons of flora include biotic plants.

Of the 53 lexicons of flora used by the Tetum as traditional ingredients for the reproductive health of the Tetuns, they can be further classified into basic forms and derivatives. The lexicon in the form of basic words is a morpheme that can become the basis for morphological processes. This lexicon can be understood as a lexicon composed of one free morpheme. The lexicons of flora in the form of basic words are 21, namely: (1) abano, (2) atok, (3) bakat, (4) bakumoru, (5) balidin, (6) donu, (7) feu, (8), fuik, (9) fuka, (10) kabanase, (11) kakeu, (12) kanuan, (13) kinur, (14) koiwa, (15) lumut, (16) mahar, (17) nawa, (18) nirok, (19) sakaer, (20) silasi, and (21) sukabi.

The lexicon of derivative forms is a form of word that is added with certain affixes. The lexicon of flora in the form of derivative words are 32 lexicons: (1) ai na, (2) ai buan liman, (3) ai manu matan, (4) ai matamutik tasi, (5) asukar mutin, (6) badut malaka, (7) badut malaka mean, (8) bunak mean, (9) dila butak, (10) funan mean, (11) hedan fuik, (12) kabebar etun, (13) kaboen mean, (14) kafiru mutin, (15) kinun mutin, (16) klatu metan, (17) klitin mean, (18) kmodo fuan, (19) lafaek nanan, (20) lalitin manek, (21) li'is tahan, (22) li'is mutin, (23) lisa maromak, (24) manumeaklotu, (25) masimanas ke'e, (26) pecut kuda, (27) puteri malu, (28) sakiki asu ikun, (29) sakiki mean, (30) talifehuk kasoruk, (31) tali manu nunun, and (32) tapak dara.

In the linguistic category, the 53 plant lexicons are classified as having animate meaning. Then, in the ecological category, the 53 flora lexicons include biotic plants. The lexicon of flora is included in the

physical environment and social environment related to the geographical environment, namely where the Tetun tribe uses flora as traditional ingredients for reproductive health.

The flora lexicon used by the Tetun to address reproductive health has its own function. There are medicinal plants that are cultivated independently and grow wild around the residence. Local knowledge about this traditional herb is passed down orally from our ancestors. Traditional medicine utilizes this plant as an alternative treatment for the Tetun Tribe in an effort to overcome reproductive health problems.

Utilization of the lexicon of flora in traditional ingredients for the reproductive health of the Tetun, includes tubers, rhizomes, leaves, roots, bark, flowers, fruits, and seeds. These medicinal plants have their respective functions in traditional medicine used by the Tetun people. For example, bawang dayak bulbs treat blood in urine, garlic treats syphilis, turmeric treats irregular menstruation, and white turmeric is used to treat vaginal cancer. The plant used to treat syphilis is ginger rhizome.

Plants whose leaves are used as traditional medicinal ingredients are, for example, sakaer to treat vaginal discharge and menstruation (Saadah et al., 2017), balidin to treat vaginal cancer (Singh et al., 2014), funan mean to treat syphilis and blood urine, lafaek nanan to treat syphilis, and meniran leaves that are used as diuretic (Bria et al., 2019). The plant that is used to treat urinary problems is nawa root (Chien et al., 2022). The bark of the dila butak is used to increase fertility, while the bark of the badut malaka is used to treat urinary tract infections (Prasad et al., 2012). Furthermore, a plant whose fruit parts are used to treat urinary problems is klitin mean. Meanwhile, the seeds of the kmodo fuan are used to increase fertility (Hashemi, 2013).

Bakat or mangroves can help overcome diarrhea, leprosy, fever, toothache, smooth menstruation, diabetes, kidney pain, and elephantiasis. These extra plants contain anticancer, antidiabetic agents, antioxidants, and antibacterials. This is due to the compound elements present in mangroves, including alkaloids, phenolic acids, saponins, tannins, flavoids, terpenoids, and steroids (Doss, 2009).

Apart from one part of the plant that is used as a traditional medicinal ingredient, there are also two parts of the plant that are also used for treatment. For example, the flowers and leaves of bunak mean are efficacious for treating blood in the urine; fuka stem bark, and roots are used to treat syphilis (Kanchan & Atreya, 2016); and roots and leaves of silasi are used to treat irregular menstruation.

The methods of processing plants that are used for reproductive health are boiling, pounding, chewing, and cooking. Meanwhile, medicinal plants that are used for boiling are, for example, funan mean, meniran, putri malu, and fuik. Plants that are chewed directly by sufferers areai manu matan, kabebar etun, dan lalitin manek. In addition, there are also plants that can be formulated in two ways, such as tapak dara, atok, kinur mutin, and balidin, which can be boiled or ground to obtain their medicinal properties. Then, the plants that can be pounded or chewed are fuka, dila butak, lafaek nanan, kmodo fuan, and kanuan. Medicinal plants that are processed by cooking are li'is tahan and bunak mean.

These traditional ingredients can be used in different ways, depending on the type of plant and the part of the body that is affected. Some of the methods are drinking, eating, smearing, taping, spraying, and sprinkling. For example, some of the plants that can be drunk as herbal remedies are sakaer, li'is mutin, masimanas ke'e, badut malaka mean, funan mean, silasi, kinur, meniran, and putri malu. Some of the plants that can be eaten as food or medicine are li'is tahan and bunak mean. A plant that can be applied only to the stomach as a poultice is dila butak. In addition, the Tetun people, in dealing with reproductive health, have two ways to apply medicinal plant ingredients. The balidin concoction is mixed to be drunk and rubbed on the affected part. These two methods are also carried out with concoctions from tapak dara dan atok. The concoction of fuka is placed as cataplasm and sprayed on the affected part. The boiled rhizome of kinur mutin is drunk and rubbed over the sick body parts. There is also a way to use the ingredients by sticking and rubbing, like kmodo fuan, lafaek nanan, and kanuan. The way to use the fuik is by pouring it on the affected part. Meanwhile, the plants that are sprayed on the affected parts are ai manu matan, kabebar etun, and lalitin manek.

The medical tradition of the Tetun tribe, which utilizes various types of flora and traditional ingredients as ingredients for reproductive traditional medicine, shows that the Tetun still maintain medicinal

knowledge and cultural traditions. However, much of the local knowledge regarding efforts to maintain reproductive health using various traditional ingredients from these plants is unknown to the younger generation. This diversity of flora is more widely used in rural or suburban communities. This can slowly lead to the loss of local knowledge of medicinal plants and also have an impact on the loss of these lexicons or vocabulary; so, it is necessary to preserve lexicons of medicinal flora and traditional ingredients for reproductive health.

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5. Discussion

Based on the results, it is concluded that the names of the flora are ancestral heritage passed down from generation to generation by the Tetun tribe. This indicates that the Tetun have a rich and diverse cultural knowledge and practice of using medicinal plants for reproductive health. The flora lexicons reflect the Tetun's worldview and values, as well as their adaptation and interaction with their physical and social environment. The flora lexicons also show the Tetun's creativity and innovation in finding and utilizing various types of plants for different purposes and methods.

The result of the research in Tetun ethnic is in line with other regions' research that still utilizes plants as herbal medicine in treating women's reproductive health. Makombe et al. (2023) show that Malawi women in Africa use plant-based herbs to maintain their health from pregnancy to childbirth. Cabada-Aguirre et al. (2023) mentioned that Mexican women use herbal medicinal plants to manage reproductive organs during menstruation, pregnancy, childbirth, and menopause. Fan et al. (2023) showed that ancient Chinese medicine used plant parts containing Sophora flavescens. Alkaloids can inhibit the growth of G. vaginalis in lower female reproduction. Wanigaratne et al. (2003) mentioned that Indian women would take herbal medicines if they wanted boys. Söderbäck et al. (2023) found out that women in Zanzibar, Tanzania, eat surrounding foliage and black cumin to prevent pregnancy.

These five studies from various countries illustrate that the use of herbal plants is still used today. This illustrates that medicinal plants are indispensable because they support women's health, in this case, reproductive organs. Some of these countries assert that despite the availability of modern medicines, the legacy of predecessors of traditional medicine using surrounding herbs is still believed to be useful. The Tetun ethnic in Malaka Regency also uses medicinal plants as an alternative to reproductive medical treatment, which has been passed down from generation to generation. The Tetun people in Malaka Regency believe that, initially, reproductive illness is caused by natural factors and myths. Therefore, the local knowledge of the Tetun ethnic of traditional reproductive health medicine needs to be preserved, given the many benefits derived from plants for reproductive health.

Based on the results of the analysis, it can be concluded that the flora lexicons used by the Tetun ethnic in Malacca Regency as a traditional medicinal herb for reproductive health amounts to 53 lexicons. Local knowledge of the lexicon of medicinal flora is a hereditary heritage that reflects the local wisdom of the Banjar Tetuns regarding the reciprocal relationship between language and the environment. It is very important to preserve the culture of traditional medicine so that local knowledge is not eroded by the times and the influence of modernization.

Preserving Tetun lexicon of medicinal plants for reproductive health has two functions. Firstly, the preservation functions to recognize and preserve local knowledge. The medicinal plant lexicons are deeply rooted in Tetun ethnic, representing a wealth of wisdom regarding the use of plants for reproductive health. By preserving the lexicons, Tetun ethnic and young generation acknowledge the cultural significance of such knowledge and ensure that the lexicons do not get lost or forgotten with time. Secondly, the conservation of medicinal plant lexicons is intricately connected to the preservation of botanical terminology. Medicinal plants are integral components of a larger ecosystem, and comprehending their uses and characteristics is intertwined with recognizing and safeguarding these plants themselves. Maintaining a comprehensive record encompassing plant names, properties, and applications indirectly supports the conservation efforts of medicinal plant species. Preserving the lexicons can generate an invaluable asset for researchers and conservationists in identifying and protecting these plant species, thereby contributing to the preservation of biodiversity and as well as sustaining ecological harmony. This highlights how preserving medicinal plant lexicons for

reproductive health exceeds merely health benefits but also embraces local wisdom and exquisite natural surroundings.

In sum, the research on the flora lexicon for reproductive health in the Tetun community contributes to the preservation of indigenous knowledge and practices, promotes sustainable healthcare, and supports cultural continuity within the community. The preservation and revitalization of indigenous knowledge systems, including the flora lexicon for reproductive health, enhance the well-being and socio-cultural resilience of the Tetun community while fostering a deeper understanding and appreciation for the intricate connections between language, environment, and reproductive health.

As a recommendation, potential studies in ecolinguistics should examine how the Tetun community's flora lexicon and reproductive health are related to one another as well as to other health issues. An ethnographic investigation into the Tetun community's use of the flora lexicon for reproductive health and other areas of health can reveal important information about the environment, culture, and language. Furthermore, research of this nature can support sustainable and culturally relevant healthcare services for the Tetun population, as well as aid in the preservation of indigenous knowledge and traditions pertaining to reproductive health. In addition to helping to preserve and revitalize indigenous knowledge systems for future generations, the study and documentation of the Tetun community's flora lexicon for reproductive health is a way to comprehend the complex interrelationship between language and the environment. it is also necessary to conduct further research based on the results of the study for clinical trials to strengthen the value of the usefulness of herbal medicine, especially for women's reproductive health. This herbal treatment has become a natural alternative in modern medicines that have been scientifically recognized. In addition, it is important to research the impact of the success and failure of herbal treatment on local communities so that it can be considered in implementing the next policy for parties related to health sciences. Finally, this research can be one of the references for conducting herbal research for male reproduction, for example, in other regions, so that ethnomedicine treasures enrich Indonesian culture.

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References

- Ain, Q., Ahmed, F., Ghilzai, S. A., & Asim, M. (2023). The erasure of nature becoming the new normal: An ecolinguistic analysis of food products commercial discourse of multinational commercial discourse of multinational companies. *Cogent Arts and Humanities*, 10(1), Article 2164405. https://doi/10.1080/23311983.2022.2164405
- Aitkulova, G., Avakova, R., & Zhantasova, Z. (2023). The concept of "diligence/laziness" in the linguistic image of the word. *International Journal of Society, Culture and Language*, 11(2), 94-102. https://doi.org/10.22034/ijscl.2023.2000804.3011
- Bria, H., Sabuna, C., Ngginak, J., & Hendrik, A. (2019). Tumbuhan berkhasiat obat untuk kesehatan reproduksi di desa Umalor kecamatan Malaka barat kabupaten Malaka [Medicinal plants for reproductive health in Umalor Village, West Malaka Subdistrict, Malaka Regency]. *Media Farmasi Indonesia*, 14(1), 1493-1499.
- Cabada-Aguirre, P., López, A. M. L., Mendoza, K. C. O., Buenrostro, K. D. G., Luna-Vital, D. A., & Mahady, G. B. (2023). Mexican traditional medicines for women's reproductive health. *Scientific Reports*, *13*(1), Article 2807. https://doi.org/10.1038/s41598-023-29921-1
- Carvalho, J. C. T. (2011). Brazilian ethnomedicinal plant with anti-inflammatory action. In M. Rai, D. Acharya & J. L. Rios (Eds.), *Ethnomedicinal plant: Revitalization of traditional knowledge of herbs* (pp. 76-114). Scientific Publishers.
- Chaer, A. (2007). *Leksikologi dan leksikografi Indonesia* [Lexicology and lexicography in Indonesia]. Rineka Cipta.

- Chaer, A. (2013). Pengantar semantik bahasa Indonesia [Introduction to the semantics of the Indonesian language]. Rineka Cipta.
- Chien, Y. H., Yu, Y. H., Ye, S. R., & Chen, Y. W. (2003). Antibacterial and antioxidant activity of the fruit of Macaranga tanarius, the plant origin of Taiwanese green propolis. Antioxidant, 11(7), Article 1242. https://doi.org/doi.org/10.3390/antiox11071242
- Doss, A. (2009). Preliminary phytochemical screening of some Indian medicinal plants. Ancient Science of Life, 29(2), 12–16.
- Fan, L., Liu., Z., Zhang, Z., & Bai, H. (2023). Antimicrobial effects of sophora flavescens alkaloids on metronidazole-resistant Gardnerella vaginalis in planktonic and biofilm conditions. Current Microbiology, 80(8), Article 263. https://doi.org/10.1007/s00284-023-03378-x
- Fill, A., & Muhlhausler, M. (2006). The ecolinguistics reader: Language, ecology, and Environment. Continuum.
- Firman, A. D., Hastuti, H. B. P., Parwati, S. A. P. E., Sudiana, I. M., Rahayu, R., & Malini, N. L. N. S. (2003). Linguistic adaptation among transmigrants: A case of Balinese. International Journal of Society, Culture, and Language, 11(3), 171-187. https://doi.org/10.22034/ijscl.2023.2010583.3152
- Hashemi, J. (2013). Pumpkin seed oil and vitamin E improve reproductive function of male rats inflicted by testicular injury. Word Applied Sciences Journal, 23(10), 1351-1359, http://doi.org/10.5829/ idosi.wasj.2013.23.10.13153
- Haugen, E. (2001). The ecology of language. In A. Fill & P. Mühlhäusler (Eds.), The ecolinguistics reader: Language, ecology and environment, continuum (pp. 57–66). London.
- Hestiyana. (2020). Leksikon etnomedisional dalam pengobatan tradisional persalinan suku Dayak Meratus [Ethnomedicine lexicon in traditional medicine of Dayak Meratus laboring]. Genta Bahtera, 6(1), 1-12.
- Hopkins, N. (2022). Identity matters: A social psychology of everyday citizenship. Psychology and Developing Societies, 34(2), 159-174. https://doi.org/10.1177/09713336221115531
- Isnawati, D. L., & Sumarno, S. (2021). Minuman jamu tradisonal sebagai kearifan lokal masyarakat di kerajaan Majapahit pada abad ke-14 masehi [Traditional herbal beverage as local wisdom in the Majapahit kingdom during the 14th century CE]. AVATARA, 11(2), 1-7.
- Kalasuba, K., Miranti, M., Rahayuningsih, S. R., Safriansyah, W., Syamsuri, R. R. P., Farabi, K., Oktovia, D., Alhasnawi, A. N., & Doni, F. (2003). Red Mangrove (Rhizophora stylosa Griff.) -A review of its botany, phytochemistry, pharmacological activities, and prospects. *Plants*, 12(11), Article 2196. https://doi.org/10.3390/plants12112196
- Kanchan, T., & Atreya, A. (2016). Colostropis gigantea. Wilderness and Environment Medicine, 27(2), 350-351. https://doi.org/10.1016/j.wem.2015.12.011
- Kashiha, H. (2023). Beyond word in evaluation: Formulaic language in critical review of research articles across disciplines. Russian Journal of Linguistics, 27(2), 251-275. https://doi.org/ 10.22363/2687-0088-34320
- Khalid, T. A., & Ahmed, A. (2023). Medicinal plants adopted as aphrodisiacs by traditional gynecologists in the Souss Massa region. Pharmacognosy Journal, 15(2), 406-413. https://doi.org/10.5530/pj.2023.15.63
- Khotimah, K., Mintowati, M., & Abdullah, Z. (2023, March). Variation of the health ecolexicon on Covid-19 news in Indonesian mass media [Conference presentation]. International Joint Conference on Arts and Humanities 2022 (IJCAH 2022), Atlantis. https://doi.org/10.2991/978-2-38476-008-4 173
- Kridalaksana, H. (2011). Kamus lingusitik [Linguistic dictionary] (4th ed.). Gramedia Pustaka Utama. Leoti, M., & Verpoorte, R. (2011). Traditional Mediterranean and European herbal medicines. Ethnopharmacol, 6(199), 161-167. https://doi.org/10.1016/j.jep.2017.01.052
- Lu, Z., Chen, H., Lin, C., Ou, G., Li, J., & Xu, W. (2022). Ethnobotany of medical plants used by the Yao people in Gongcheng country, Guangxi, China. Journal Ethnobiol Ethnomed, 18, Article 49. https://doi.org/10.1186/s13002-022-00544-6
- Mabel, Y., Herny, S., & Roni, K. (2016). Identifikasi dan pemanfaatan tumbuhan obat suku Dani di kabupaten Jayawijaya Papua [Identification and utilization of medicinal plants by the Dani tribe in Jayawijaya Regency, Papua]. Jurnal Mipa Unsrat Online, 5(2), 103-107. http://doi.org/ 10.35799/jm.5.2.2016.13512

- Mahsun, M. S. (2013). *Metode penelitian bahasa: Tahapan strategi, metode, dan tekniknya* [Language research methods: Stages, strategies, methods, and techniques]. Raja Grafindo Persada.
- Makombe, D., Thombozi, E., Chilemba, W., Mboma, A., Banda, K. J., & Mwakilama, E. (2023). Herbal medicine use during pregnancy and childbirth: Perceptions of women living in Lilongwe rural, Malawi-A qualitative study. *BMC Women's Health*, 23(1), Article 228. https://doi.org/10.1186/s12905-023-02387-z
- Malova, V. A., & Danich, O. V. (2021). Spiritual energy of the Russian word as a scientific challenge of humanitarian thought. *Russian Language Studies*, 19(2), 125-137. https://doi.org/10.22363/2618-8163-2021-19-2-125-137
- Mbete, A. M. (2013). *Penuntun singkat penulisan profosal penelitian ekolinguistik* [A brief guide to writing an ecolinguistics research proposal]. Vidia.
- Ogunlakin, A. D., Sonobare, M. A., & Ojo, O. A. (2023). Review on effect of medicinal plants on female reproductive system. *Tropical Journal of Natural Product Research*, 7(3), 2473-2483. https://doi.org/10.26538/tjnpr/v7i3
- Pansat, Z., & Khalikova, N. (2023). Semantic features of color in emotional, expressive word: The concept of "blue" in the Kazakh language. *International Journal of Society, Culture and Language*, 11(2), 85-93. https://doi.org/10.22034/ijscl.2023.556420.2676
- Pateda, M. (2009). Semantik leksikal [Lexical semantics]. Rineka Cipta.
- Pieroni, A., Cianfaglione, K., Nedelcheve, A., Hajdari, A., Mustafa, B., & Quave, C. L. (2014). Resilience at the border: Traditional botanical knowledge among Macedonians and Albanians living in Gollobordo, Eastern Albania. *Journal of Ethnobiology Ethnomedicine*, 10(1), Article 10. https://doi.org/10.1186/1746-4269-10-31
- Prasad, R., Izam, A., & Khan, M. (2012) Jatropha Curcas: Plant of medical benefits. *Journal of Medicinal Plants Research*, 6(14), 2691-2699. https://doi.org/10.5897/JMPR10.977
- Priana, N. G. (2017). Ekoleksikon dalam permainan tradisional masyarakat Muna [Ecological lexicon in the traditional games of the Muna community]. *Jurnal Bastra: Bahasa dan Sastra*, *1*(4), 1-14. http://doi.org/10.36709/jb.v1i4.2370
- Saadah, A. A., Setyarini, D. I., & Mardiyanti, T. (2017). Asam jawa (Tamarindis indical) dan intensitas nyeri dismenores primer pada remaja putri [Tamarind (Tamarindus indica) and the intensity of primary dysmenorrhea pain in adolescent girls]. *Jurnal Keperawatan Terapan*, *3*(2), 57-63. https://doi.org/10.31290/jkt.v(3)i(2)y(2017).page:57-63
- Sapir, E. (1924). Language. An introduction to the study of speech. *The Modern Language Review*, 19(2), 253-255. https://doi.org/10.2307/3713880
- Singh, R., Sharma, J., & Goyal, P. K. (2014). Prophylactic role of Averrhoa carambola (star fruit) extract against chemically induced hepatocellular carcinoma in Swiss Albino mice. *Advances in Pharmacological Sciences*, 2014, Article 158936. https://doi.org/10.1155/2014/158936
- Söderbäck, K., Holter, H., Salim, S. A., Elden, H., & Bogren, M. (2023). Barriers to using postpartum family planning among women in Zanzibar Tanzania. *BMC Women's Health*, 23(1), Article 182. https://doi.org/10.1186/s12905-023-02330-2
- Sudaryanto. (2015). *Metode dan aneka teknik analisis bahasa: Pengantar penelitian wahana kebudayaan secara linguistis* [Methods and various techniques of language analysis: An introduction to linguistically studying cultural vehicles]. Sanata Dharma University Press.
- Sugiyono. (2014). Memahami penelitian kualitatif [Understanding qualitative research]. Alfabeta.
- Suktiningsih, W. (2016). Leksikon Fauna masyarakat Sunda: Kajian ekolinguistik [Fauna lexicon of Sundanese society: An ecolinguistic study]. *RETORIKA: Jurnal Ilmu Bahasa*, 2(1), 138–156. https://doi.org/10.22225/jr.2.1.241.138-156
- Sundueva, E. V. (2019). Vyrzhenie vzglyada posredstvom slov s kornevym soglasnym l v mongol'skikh yazykakh [Mongolic words with the stem consonant l to express 'look / glance']. *Sundueva*, 12(1), 49-56. https://doi.org/10.22162/2619-0990-2019-41-1-49-56
- Wanigaratne, S., Jnauwalla, A., Bhangu, M., Uppal, P., Kumar-Ratta, A., Brar, A., Dennis, C. L., & Urquia, M. (2003). Gender-based discrimination and son preference in Punjabi-Canadian families: A community-based participatory qualitative research study. *BJM Open*, *13*(8), Article e074276. https://doi.org/10.1136/bmjopen-2023-074276
- Wijana, I. D. P. (2015). *Pengantar semantik Bahasa Indonesia* [Introduction to the semantics of the Indonesian language]. Pustaka Pelajar.

Zychlinsky, E., & Kagan, M. (2022). The culture of volunteerism: Attitudes and motivation among generation 1.5 former Soviet Union immigrants versus native-born Israelis. *International Journal of Environmental Research and Public Health*, 19(19), Article 12783. https://doi.org/10.3390/ijerph191912783