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Ethnobotanical study of local food plants used by the Sikka People in Flores, East Nusa Tenggara Province

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A B S T R A C T

The Krowe and Tana Ai ethnic groups are indigenous communities residing in the Sikka Regency of East Nusa Tenggara. Their lifestyles continue to uphold cultural traditions passed down through generations, one of which includes the use of plants for food in daily life. Documentation of food plant usage by the Sikka people, particularly these two ethnic groups, has never been conducted. This prompted researchers to preserve local knowledge and biodiversity, which are increasingly being eroded by modern developments. This study was conducted in Hewokloang Village, representing the Krowe ethnic group, and Pruda Village, representing the Tana Ai ethnic group. Both qualitative and quantitative methods were employed using an ethnobotanical approach. Respondents included 110 people, comprising general respondents and key informants (traditional and community leaders). The study identified 23 species of local plants used for food, classified into four categories: tubers, cereals, legumes, and fruits/flowers/stems. The highest Use Value (UV) of 0.027 was recorded for red rice, black rice, rice, taro, cassava, and yam. Meanwhile, the highest Relative Frequency of Citation (RFC) value of 1.00 (100% recognition) was found for taro, cassava, red rice, rice, and kepok banana. The tuber group had the highest Informant Consensus Factor (ICF) value at 0.9895.

Keywords: Ethnobotany, Krowe, Sikka, Tana Ai

1. INTRODUCTION

Food is a fundamental human necessity that cannot be replaced by other resources. The diverse ethnic composition and megabiodiversity of Indonesia have fostered the development of various forms of local knowledge regarding the utilization and management of plant resources, particularly as food sources. The study of plant utilization by different ethnic groups is referred to as ethnobotany, and it is essential to conduct such studies as a means to conserve local knowledge and biological resources, which are currently declining or even facing extinction. Several factors contribute to this decline, including demographics, economics, globalization, modernization, governance, land-use changes, excessive exploitation of plant resources, climate change, pollution, and policy changes (Sujarwo, 2023).

Currently, both globally and in Indonesia, the increasing demand for food driven by population growth poses a major challenge (Ariska and Qurniawan, 2021; Malau et al., 2023). Simultaneously, Indonesia is affected by climate change, which is one of the causes of the ongoing food crisis (Akmal et al., 2022; Mundita, 2013). Research by Malau et al. (2023) indicates that food crops impacted by climate change include corn, rice, and soybeans. Since the era of President Soekarno's administration, rice has been promoted as the primary staple food in Indonesia through rice self-sufficiency programs. This has led to a shift away from local foods such as corn, tubers, grains, and sago (Widowati et al., 2023). Local food refers to food consumed by local communities based on their unique resources and wisdom, and it holds great potential for strengthening food security and independence.

The Sikka people, known for their five major ethnic subgroups namely Ata Sikka Krowe, Ata Tana Ai, Ata Palu'e, Ata Lio, and Ata Goan (Suswandari and Sri Astuti, 2020) possess rich traditional knowledge related to the utilization and management of local plants for various purposes, including medicine (Mitak et al., 2023; Orance et al., 2024), natural dyes (Jovanti et al., 2023; Rosdewi et al., 2023), ritual purposes (Deru et al., 2024), and others

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(Ariyanti and Mudiana, 2011). However, research focusing on the use of plants as local food sources remains limited, despite its significant potential to support food independence in Sikka Regency.

Sikka Regency is rich in local food resources such as corn, sorghum, and tubers. This potential is recognized in the Regent Regulation of Sikka Regency No. 13 of 2015 on the Acceleration Movement for Diversifying Food Consumption Based on Local Resources (Bakri et al., 2016). This regulation aims to reduce dependency on rice imported from other regions. However, the implementation of this policy has not been optimal. The people of Sikka continue to face prolonged food insecurity (Media, 2023; "Nian Tana Sikka," n.d.). This food crisis has had a serious impact on malnutrition and has led to a high incidence of stunting in the region (Millenia et al., 2024). Therefore, this study aims to explore the potential of biological resources as local food among the Sikka people, particularly the Krowe and Tana Ai ethnic groups, as an effort to conserve local food, traditional knowledge, and cultural practices in tackling food insecurity and malnutrition.

2. MATERIAL AND METHODS

This research was conducted in Hewokloang Village (representing the Sikka Krowe ethnicity) and Pruda Village (representing the Tana Ai ethnicity) in Sikka Regency, East Nusa Tenggara Province, Indonesia. Data collection techniques included interviews, exploratory surveys, and document studies (Sada and Jumari, 2018).

The interviews were conducted using a semi-structured interview technique guided by a list of questions for general respondents (indigenous people of the Krowe and Tana Ai ethnicities). Meanwhile, key informants (traditional and community leaders) were interviewed using informal, open-ended, and in-depth interviews. Key informants were selected using snowball sampling, while general respondents were selected using purposive sampling. The study involved 100 general respondents and 10 key informants. The respondents were categorized by age: >17–29 years (20 people), 30–49 years (30 people), and >50 years (50 people), to assess their understanding of local food and the transmission of related knowledge.

The exploratory survey aimed to inventory local food plant species used by the Sikka people. Data collection involved a roaming method, where researchers explored sampling areas guided by informants, based on interview results. Plant species were identified by their local and scientific names, plant parts used, utilization methods, and preparation processes.

Document study was carried out by selecting, determining, recording, and compiling data from various sources related to ethnobotanical references on local food and the culture of the Sikka people. Quantitative data were analyzed using mathematical equations commonly applied in ethnobotanical research (Hakim, 2014; Silalahi et al., 2018), as follows:

1. Use Value (UV) is a quantitative index used to evaluate the utility value of plant species. UV ranges from 0 (if a plant is not useful) to 1 (if a plant is highly useful). The formula is:

$$\text{UV} = \frac{U}{N} \quad (1)$$

Where *U* is a total number of use-reports per species, *N* is a total number of informants

2. Informant Consensus Factor (ICF) is used to measure the homogeneity of knowledge among informants and is calculated using the formula:

$$\text{ICF} = \frac{(\text{Nur} - \text{Ns})}{(\text{Nur} - 1)} \quad (2)$$

Where *Nur* is a number of use-reports for a particular use category; *Ns* is a number of species used in that category, and ICF values range from 0 to 1.

3. Relative Frequency of Citation (RFC) reflects the local importance of each species and is calculated as:

$$\text{RFC} = \frac{Fc}{N} \quad (3)$$

Where *Fc* is number of informants mentioning the use of a species, *N* is a total number of informants; and RFC values range from 0 to 1.

Qualitative data were analyzed through data reduction, data presentation, conclusion drawing, and verification. Quantitative data on plant use values were calculated using the above mathematical formulas.

3. RESULTS AND DISCUSSION

The Sikka Krowe indigenous community, often referred to as *Ata Sikka Krowe*, represents the largest ethnic group in Sikka Regency. "Krowe" means "mountain," and "ata" means "people," hence "Ata Krowe" refers to mountain people (Suswandari and Astuti, 2020). Hewokloang Village serves as one of the cultural centers of the Krowe ethnic group. It comprises seven main clans (*lepo*): *Lepo Rotan Jonong, Lepo Kirek, Lepo Tana, Lepo Musi Dole, Lepo Barirewo, Lepo Lai, and Lepo Lora*. In recent times, more clans have emerged, such as *Lepo Ratu, Hoban, Mapat, Gahar, Laka, Tana Wura, Gai*, and *Baoblutuk*, all of which adhere to the same customs and traditions.

Meanwhile, the Tana Ai ethnic group resides in the easternmost part of Sikka Regency, including Pruda Village. The term Tana Ai can be interpreted as a bond with mother nature, or it may also refer to wood, plants, or forests. This aligns with the region's physical characteristics—lush forests and a cool climate with distinct rainy (wulan lelen) and dry (wulan daran) seasons (Suswandari and Sri Astuti, 2020). Pruda Village is home to various clans such as *Maget, Ipir, Rotan, Hebin, Lewuk, Nuha, Tapo, Uran, Goban,* and *Liwu*.

3.1 Diversity of local food plants

Identification of local food plant species was based on direct morphological observation in the field, supported by interview data from respondents. The study recorded 23 species of local food plants classified into 8 families and 4 main groups: tubers, cereals, legumes, and fruits/flowers/stems. While the diversity in Sikka is relatively limited compared to the 83 plant species found among the Tapalang people (Sari et al., 2022), it exceeds that of the Dayak Iban community, which recognizes 17 species (Arini et al., 2021). According to Khasanah et al. (2023), social and cultural differences among communities based on their environment affect how they understand and utilize natural resources.

Based on Table 1, cereals account for the largest number of species (8), followed by tubers and legumes (6 species each), and fruits/flowers/stems (3 species). The two ethnic groups utilize these plants as staple foods and complementary foods. Staple foods include rice, corn, sorghum, millet, bananas, and tubers, while legumes such as peanuts, mung beans, and winged beans are commonly consumed alongside staples.

3.2 Cereals

Cereals are a group of essential staple food crops globally, including in Indonesia. Rice is the primary local food staple for both the Krowe and Tana Ai ethnic groups. Several local rice (*Oryza sativa* L.) cultivars, such as red rice and black rice, are still cultivated in gardens, fields, and rice paddies. In addition to being consumed, cooked red rice is also used as an offering during traditional ceremonies.

Besides rice, corn (*Zea mays* L.) is another main local food crop cultivated in gardens and fields. Among the Hewokloang community (Krowe ethnicity), the local corn variety known as *lele bugit* has small kernels that are either white or a mix of yellow and white. In Pruda (Tana Ai ethnicity), the local variety is called *watar eget*, which has all-white kernels and a chewy texture when cooked (Figure 1).

Other cereals include millet (*Setaria italica* (L.) P. Beauv.), sorghum/*watar* (*Sorghum bicolor* (L.) Moench), and job's tears/*lele ho'on* (*Coix lacryma-jobi* L.), which are also recognized as staple foods among the communities in Hewokloang and Pruda (Figure 2). However, sorghum (*watar*) and job's tears (*lele ho'on*) are becoming increasingly rare and are no longer cultivated by most people. When needed, they are usually obtained by purchase.

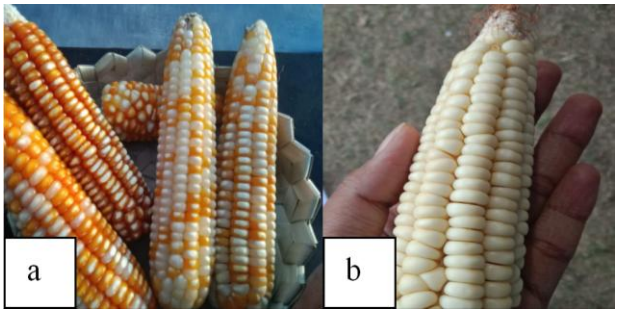

Figure 1. Variability in corn seed morphology (a. *Lele bugit*; b. *Watar eget/jawa taki*)

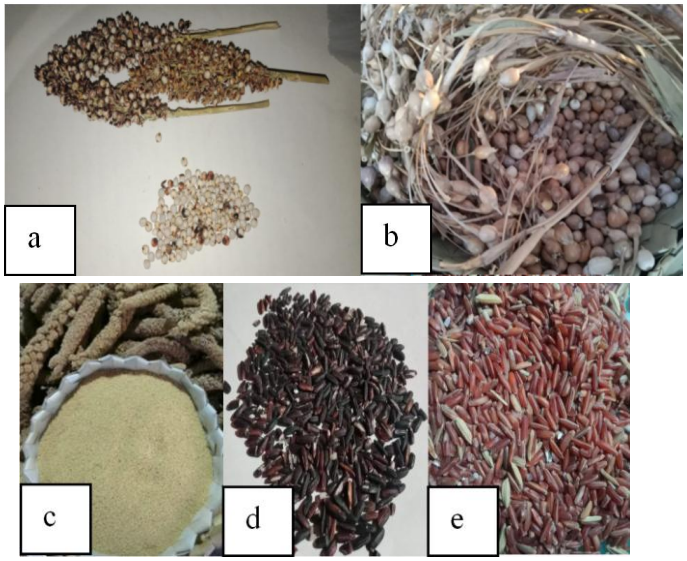

Figure 2. Variability in cereal species (a. *Watar*; b. *Lele ho'on*; c. Wetan; d-e. Black and red *Pare*)

Millet (*wetan*) (*Setaria italica* (L.) P. Beauv.) holds special cultural significance as it plays a crucial role in rituals and traditional ceremonies. For the communities of Hewokloang and Pruda, ceremonies cannot proceed without *wetan*. Because of its importance, *wetan* is still widely cultivated in their gardens and fields.

3.3 Tuber crops

This study identified six types of tuber crops, consisting of both cultivated and wild varieties. Tuber crops are generally perennial plants, making them a primary food source when seasonal crops like rice or corn are unavailable.

The types of yam (*Dioscorea* spp.) found in the study sites include *Dioscorea alata* L. (called *ohu*), *Dioscorea esculenta* (Lour.) Burkill (called *hura*), and *Dioscorea hispida* Dennst. (called *pida* or *magar*). *D. alata* and *D. esculenta* are cultivated in gardens and fields, whereas *D. hispida* is a wild yam found only in forests near residential areas. These three yam species can be distinguished morphologically by features such as the direction of twining, stem shape, the presence of thorns, leaf shape, tuber color, and aerial bulbils (Mundita, 2013; Tolangara, 2020).

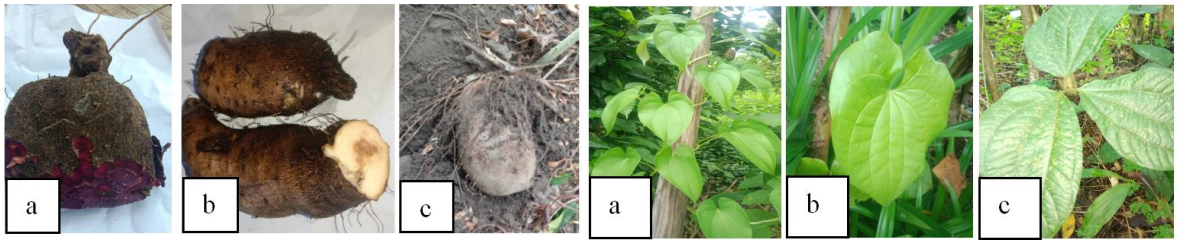

Figure 3. Diversity of *Dioscorea* species (a. *Ohu*; b. *Hura*; c. *Pida/Magar*)

Other commonly cultivated tubers include cassava (*Manihot esculenta* Crantz), sweet potato (*Ipomoea batatas* (L.) Lam.), and taro (*Xanthosoma sagittifolium* (L.) Schott). These are widely grown in gardens, fields, and house yards due to the highland and hilly topography of the study locations, which are well-suited for their cultivation. In addition to being staple foods, these crops also have high economic value as they are sold in markets and used as animal feed.

Sweet potato (*Ipomoea batatas*), a widely distributed crop in Indonesia, is a staple in various regions including Nusa Tenggara Timur (NTT), where it is a major food source in Lembata and South Central Timor. In both Hewokloang and Pruda, sweet potato (*tuka*) is also a staple food, though not consumed at every meal. It is commonly eaten as a substitute for rice during breakfast, lunch, or dinner.

Three sweet potato variants were identified based on differences in leaf shape, flesh color, skin color, and tuber shape. The first variant has white flesh and skin, the second has purple skin and yellow flesh, and the third has brown skin with white flesh that turns yellow when cooked. This morphological diversity is influenced by genetic variation (clones/varieties) and growing conditions (Leurima et al., 2023).

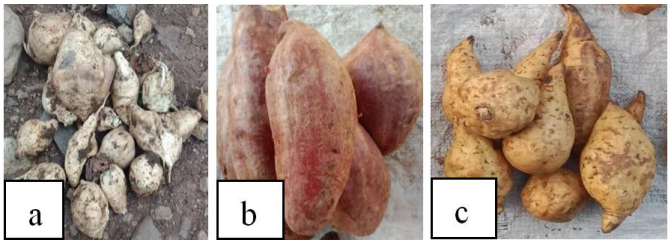

Figure 4. Three variants of sweet potato (a. White sweet potato; b. Purple sweet potato; c. Yellow sweet potato)

3.4 Legumes

The study identified six types of legumes belonging to the Fabaceae family. These include pigeon pea (*wuek ai/wuek*) (*Cajanus cajan*), winged bean (*he'o*) (*Psophocarpus tetragonolobus*), cowpea (*Vigna unguiculata*), lima bean (*Phaseolus lunatus*), mung bean (*bue*) (*Vigna radiata*), and peanut (*wewe tana*) (*Arachis hypogaea*). The diversity of legumes used as food among the Krowe and Tana Ai communities is considered high compared to the Lio ethnic group, who use only three types (Hutubessy et al., 2021), but lower than in the Timor community, which utilizes 23 cultivated and wild legume species (Puspita et al., 2017).

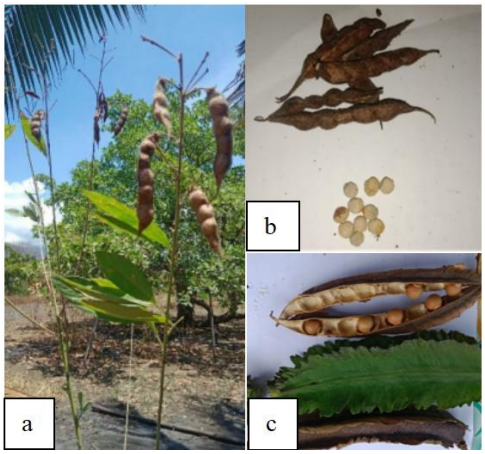

Figure 5. Diversity of legume types (a-b. *Wuek*; b. *He'o*)

Generally, legumes are used as complementary foods alongside staples like rice, corn, or tubers. In addition to the seeds, leaves of some species are also consumed as vegetables. According to interview data, the six types of legumes serve not only as sources of plant-based protein for nutrition but also have economic value, contributing to household income through local markets.

3.5 Fruits/flowers/stems

Only three types of plants were identified in this category: kepok banana (called *mu'u baina*), regular banana (called *mu'u widintaran*) and pumpkin (called *besi*). Bananas (*Musa x paradisiaca* L.) are native to Indonesia and exhibit high cultivar diversity. They are easily cultivated in various environments such as yards, gardens, or fields, and they grow quickly (Yastini, 2019). Generally, bananas are consumed for their fruit, while the inflorescence (banana heart) can be prepared as a vegetable. The pseudostem is used as animal feed (for pigs and cattle), and the leaves are commonly used as food wrappers and for other traditional purposes.

Bananas are popular across all age groups due to their versatility in food preparation. For the Sikka people, kepok bananas have significant cultural value, particularly in traditional wedding ceremonies (Deru et al., 2024). Pumpkin (*besi*) is another local food plant whose parts namely flowers, leaves, stems, and fruit can be used as vegetables. Its seeds are typically roasted or grilled for consumption.

Table 1. Diversity of local food plants found in Hewokloang and Pruda Villages

Category	No	Plant Type			Family	Part Used	Processing Method	Other Uses
		Local Name	Common Name	Scientific Name				
Tubers	1	*Ohu (Krowe), Krowe (Tana Ai)*	Yam	*Dioscorea alata* L.	Dioscoreaceae	Tuber	Roast, boil	Customary ceremony, For sale
	2	*Hura (Krowe, Tana Ai)*	Yam	*Dioscorea esculenta* (Lour.) Burkill	Dioscoreaceae	Tuber	Roast, boil	For sale
	3	*Ai Dohu (Krowe), Ohu ai (Tana Ai)*	Cassava	*Manihot esculenta* Crantz	Euphorbiaceae	Leaves and Tuber	Roast, boil, fry, sauté	Animal feed, For sale
	4	*Rose (Krowe), Wutik/roset (Tana Ai)*	Taro	*Xanthosoma sagittifolium* (L.) Schott	Araceae	Tuber	Roast, boil, fry	Animal feed, For sale

	5	*Tuka (Krowe), Ohu jawan/tuka (Tana Ai)*	Sweet Potato	*Ipomoea batatas* (L.) Lam.	Convolvulaceae	Leaves and Tuber	Roast, boil, fry, sauté	For sale
	6	*Pida (Krowe), Magar (Tana Ai)*	Yam	*Dioscorea hispida* Dennst.	Dioscoreaceae	Tuber	Boil	For sale
	7	*Wuek ai (Krowe), Wuek (Tana Ai)*	Pea	*Cajanus cajan* (L.) Millsp.	Fabaceae	Seed	Boil	For sale
	8	*He'o (Krowe, Tana Ai)*	Winged Bean	*Psophocarpus tetragonolobus* (L.) DC	Fabaceae	Fruit, Leaves, and Seed	Boil, fry, sauté	For sale
Legumes	9	*Biha (Tana Ai)*	Bean	*Vigna unguiculata* (L.) Walp	Fabaceae	Seed, Leaves	Boil	For sale
	10	*Wewe (Krowe)*	Rice Bean	*Phaseolus lunatus* L	Fabaceae	Leaves, Seed	Boil, sauté	For sale
	11	*Bue (Krowe dan Tana Ai)*	Mung Bean	*Vigna radiata* (L.) R. Wilczek	Fabaceae	Seed	Boil	For sale
	12	*Wewe tana (Krowe, Tana Ai)*	Peanut	*Arachis hypogaea* L.	Fabaceae	Seed	Boil, fry, roast, eaten raw	For sale
	13	*Pare merah (Krowe), Nalu meran (Tana Ai)*	Red Rice	*Oryza sativa* L.	Poaceae	Seed	Boil	Customary ceremony, For sale
	14	*Pare mita (Krowe), Nalu minta (Tana Ai)*	Black Rice	*Oryza sativa* L.	Poaceae	Seed	Boil	Customary ceremony, For sale
	15	*Pare (Krowe, Tana Ai)*	Rice	*Oryza sativa* L.	Poaceae	Seed	Boil	For sale
Cereals	16	*Lele bugit (Krowe)*	Corn	*Zea mays* L.	Poaceae	Seed	Boil	For sale
	17	*Watar gahar (Tana Ai)*	Corn	*Zea mays* L.	Poaceae	Seed	Roast, boil, fry	For sale
	18	*Wetan (Krowe)*	Foxtail Millet	*Setaria italica* (L.) P. Beauv.	Poaceae	Seed	Boil	Customary ceremony
	19	*Watar (Krowe)*	Sorghum	*Sorghum bicolor* (L.) Moench	Poaceae	Seed	Boil	
	20	*Lele ho'on (Krowe)*	Job's Tears	*Coix lacryma-jobi* L.	Poaceae	Seed	Boil	
	21	*Mu'u baina (Krowe), Mu'u branga (Tana Ai)*	Kepok banana	*Musa x paradisiaca* L.	Musaceae	Fruit	Roast, boil, fry, ripe fruit eaten raw	For sale, Customary ceremony
Fruits	22	*Mu'u widintaran (Tana Ai)*	Banana	*Musa x paradisiaca* L.	Musaceae	Fruit	Roast, boil, fry, ripe fruit eaten raw	For sale

	23	*Besi (Tana Ai)*	Pumpkin	*Cucurbita moschata* Duchesne	Cucurbitaceae	Leaves, Fruit, Flower, Stem, Seed	Boil, fry, sauté	For sale

3.6 Quantitative ethnobotanical index analysis

a. Use value (UV)

The Use Value index was calculated to identify plant species with the highest utility in the community. A higher UV indicates a plant is more widely utilized (Anggreini et al., 2021). The analysis showed that UV values for local food plants ranged from 0.009 to 0.027 (Figure 6). The highest UV (0.027) was found in six species: red rice, black rice, rice (Oryza sativa L.), taro (Xanthosoma sagittifolium), cassava (*Manihot esculenta* Crantz), and yam (Dioscorea alata L.). These plants are widely used not only as food but also sold and used in traditional rituals.

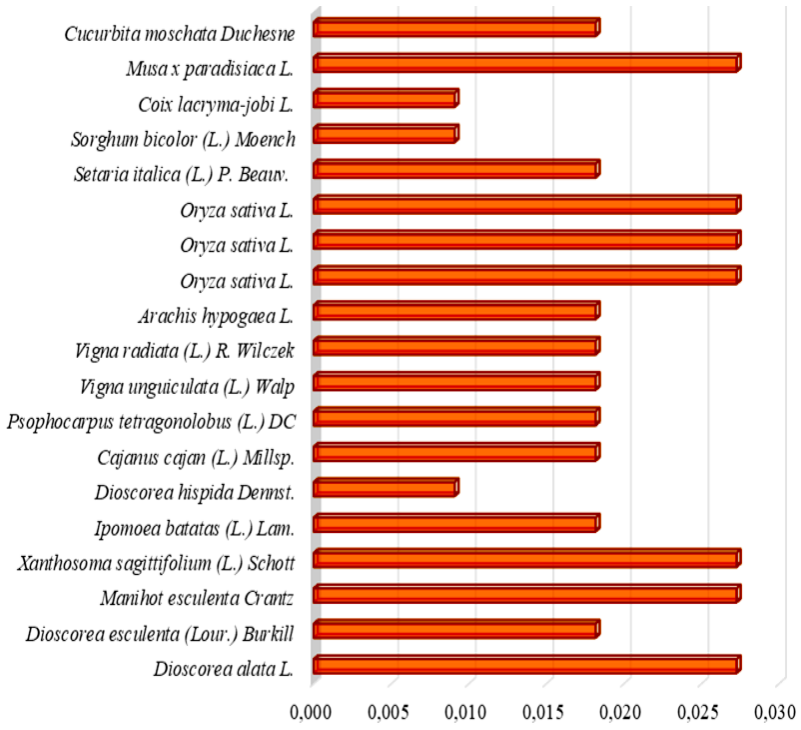

Figure 6. The use value of local food plants

For instance, red rice (*pare merah/nalu meran*) and rice (*pare*) are essential for ritual offerings during customary events such as the opening of new fields or the start of planting and harvest seasons. The Hewokloang community observes rituals like *Patin* (opening fields), *Nona* (planting), and *Poru* (harvesting), while in Pruda, the *Pai* (planting) and *Ri* (harvesting) rituals are carried out in traditional gardens (*Uma ai pu'a*). Similarly, taro and cassava have economic value and are also used as animal feed. In Hewokloang, yam (*ohu*) is vital in the *Lodo hu'er* ritual, held when planting a cross for deceased family members.

On the other hand, the lowest UV (0.009) was recorded for sorghum (*watar*) and job's tears (*lele ho'on*) because these cereals are no longer cultivated and are now rarely used. These crops have been replaced by higher-value crops. Since the 1970s, residents of Hewokloang have shifted toward rice as the primary staple food. As a result,

local food crops like millet (*wetan*), sorghum, and job's tears have disappeared from home gardens and fields. These plants are now only available through purchase. This decline is associated with the conversion of agricultural lands into plantations dominated by long-lived cash crops like clove, coconut, candlenut, and cocoa. People now prioritize commercial crops for income and use the proceeds to purchase rice and other food items.

b. Informant consensus factor (ICF)

The ICF is used to determine the level of agreement among respondents regarding the use of plant species for food based on local knowledge. The ICF values ranged from 0.9870 to 0.9895. Tuber crops had the highest ICF value at 0.9895, followed by fruits/flowers/stems (0.9888), cereals (0.9876), and legumes (0.9870) (Table 2). Tubers scored highest due to their historical role as the primary source of carbohydrates before rice became widespread.

Table 2. Informant consensus factor (ICF) values

Category of Local Food	Number of Use Reports	Number of Species	ICF Value
Tubers	478	6	0.9895
Legumes	388	6	0.9870
Cereals	485	7	0.9876
Fruit/Flower/Stem	180	3	0.9888

Respondents aged 30 and above were generally more familiar with both cultivated and wild tuber species, while those aged 17–29 recognized mostly cultivated types like taro, cassava, and sweet potato. According to respondents, tubers are easy to grow in various soil types, require minimal care, and are sufficient to meet daily energy needs. This is supported by studies (Andarias et al., 2021; Angely et al., 2023) noting the high nutritional and carbohydrate content, adaptability to marginal lands, and genetic diversity of tubers.

Fruits/flowers/stems followed closely in ICF, despite being represented by only three species namely kepok banana, regular banana, and pumpkin. These species were well-known across all age groups, readily available in the area, and frequently consumed. Cereals and legumes also showed high informant consensus.

Most local food plants are cultivated by residents in fields, rice paddies, and home gardens as part of conserving their genetic resources. Although much agricultural land has been converted to plantations, residents maintain smaller areas for food crops due to the cultural requirement of conducting planting and harvesting rituals in these locations. Arini et al. (2021) note that such cultivation practices reflect an awareness of the need to conserve plant species. Local wisdom in managing and utilizing plants forms the foundation of food security. Therefore, local food potentials should be developed and prioritized by both communities and local governments to promote food self-sufficiency and reduce malnutrition, especially stunting (Arini et al., 2021; Auliana, 2011; Fauziah & Krianto, 2022; Puspita et al., 2017; Rohyani et al., 2015).

c. Relative frequency of citation (RFC)

RFC values indicate the local importance and utility of each plant species used as food by the Krowe (Hewokloang village) and Tana Ai (Pruda village) communities. The analysis revealed that five plant species namely taro, cassava, red rice, rice, and kepok banana had the highest RFC value of 1.00, meaning they were recognized by 100% of respondents (Table 3).

Eighteen species were known only to a portion of the respondents, with RFC values ranging from 0.182 to 0.982. A similar pattern was found in the Batak sub-ethnic community, where 14 out of 44 food plant species were recognized by less than 40% of respondents (Silalahi et al., 2018).

The lowest RFC value was recorded for Dioscorea hispida (*pida/magar*), a poisonous wild yam. Only respondents over the age of 50 were familiar with it, as it was used as a rice substitute during times of famine.

Since *pida/magar* is toxic and must be carefully processed to be safe for consumption, it is no longer used today. Another species with a low RFC was *biha* (a type of bean), with a value of 0.364, as it is only grown and consumed by the Pruda community.

Table 3. Relative frequency of citation (RFC) value of local food plants

Category	No	Plant Type			Family	Known (Σ person)	RFC
		Local Name	Common Name	Scientific Name			
Tubers	1	*Ohu (Krowe), Krowe (Tana Ai)*	Yam	*Dioscorea alata* L.	Dioscoreaceae	80	0,727
	2	*Hura (Krowe, Tana Ai)*	Yam	*Dioscorea esculenta* (Lour.) Burkill	Dioscoreaceae	50	0,455
	3	*Ai Dohu (Krowe), Ohu ai (Tana Ai)*	Cassava	*Manihot esculenta* Crantz	Euphorbiaceae	110	1,000
	4	*Rose (Krowe), Wutik/roset (Tana Ai)*	Taro	*Xanthosoma sagittifolium* (L.) Schott	Araceae	110	1,000
	5	*Tuka (Krowe), Ohu jawan/tuka (Tana Ai)*	Sweet Potato	*Ipomoea batatas* (L.) Lam.	Convolvulaceae	108	0,982
	6	*Pida (Krowe), Magar (Tana Ai)*	Yam	*Dioscorea hispida* Dennst.	Dioscoreaceae	20	0,182
Legumes	7	*Wuek ai (Krowe), Wuek (Tana Ai)*	Pea	*Cajanus cajan* (L.) Millsp.	Fabaceae	48	0,436
	8	*He'o (Krowe, Tana Ai)*	Winged Bean	*Psophocarpus tetragonolobus* (L.) DC	Fabaceae	55	0,500
	9	*Biha (Tana Ai)*	Bean	*Vigna unguiculata* (L.) Walp	Fabaceae	60	0,545
	10	*Wewe (Krowe)*	Rice Bean	*Phaseolus lunatus* L	Fabaceae	20	0,364
	11	*Bue (Krowe dan Tana Ai)*	Mung Bean	*Vigna radiata* (L.) R. Wilczek	Fabaceae	100	0,909
	12	*Wewe tana (Krowe, Tana Ai)*	Peanut	*Arachis hypogaea* L.	Fabaceae	106	0,955
Cereals	13	*Pare merah (Krowe), Nalu meran (Tana Ai)*	Red Rice	*Oryza sativa* L.	Poaceae	110	1,000
	14	*Pare mita (Krowe),*	Black Rice	*Oryza sativa* L.	Poaceae	110	1,000

		Nalu minta (Tana Ai)					
	15	*Pare (Krowe, Tana Ai)*	Rice	*Oryza sativa* L.	Poaceae	110	1,000
	16	*Lele bugit (Krowe)*	Corn	*Zea mays* L.	Poaceae	25	0,455
	17	*Watar gahar (Tana Ai)*	Corn	*Zea mays* L.	Poaceae	45	0,818
	18	*Wetan (Krowe)*	Foxtail Millet	*Setaria italica* (L.) P. Beauv.	Poaceae	80	0,727
	19	*Watar (Krowe)*	Sorghum	*Sorghum bicolor* (L.) Moench	Poaceae	70	0,636
	20	*Lele ho'on (Krowe)*	Job's Tears	*Coix lacryma-jobi* L.	Poaceae	50	0,455
	21	*Mu'u baina (Krowe), Mu'u branga (Tana Ai)*	Kepok banana	*Musa x paradisiaca* L.	Musaceae	110	1,000
Fruits	22	*Mu'u widintaran (Tana Ai)*	Banana	*Musa x paradisiaca* L.	Musaceae	45	0,818
	23	*Besi (Tana Ai)*	Pumpkin	*Cucurbita moschata* Duchesne	Cucurbitaceae	25	0,455

4. CONCLUSION

This study shows that the Krowe and Tana Ai ethnic communities still rely on a variety of local food plants to meet their dietary needs. Their knowledge, inherited from ancestors, remains valuable and worthy of preservation despite being increasingly threatened by technological advancement and changing traditions.

A total of 23 plant species were identified as food sources. Many of these species also serve additional functions, such as being used in traditional rituals, as animal feed, or as economic commodities to supplement household income. The highest Use Value (UV) of 0.027 was recorded for red rice and black rice (*Oryza sativa* L.), regular rice (*Oryza sativa* L.), taro (*Xanthosoma sagittifolium*), cassava (*Manihot esculenta* Crantz), and yam (*Dioscorea alata* L.). The tuber group had the highest Informant Consensus Factor (ICF) value of 0.9895, and the RFC value of 1.00 was achieved by taro, cassava, red rice, rice, and kepok banana (*Musa x paradisiaca* L.). Efforts to conserve the biodiversity of local food resources are carried out through cultivation in gardens, fields, and home yards.

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