



Traditional Knowledge and Ethnobotanical Utilization of Edible Plants in The Repong Damar Agroforestry System, Way Krui Subdistrict, Pesisir Barat Regency, Lampung, Indonesia

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Abstract: This study explores the role of biodiversity in the Repong Damar agroforestry system of Way Krui, Pesisir Barat, focusing on its contribution to local food sources and the ethnobotanical knowledge of nearby communities. The research aims to analyze vegetation composition and species dominance, document food-plant species and their cultural uses, and describe local processing methods of biodiversity-based food resources. Fieldwork was conducted from October to November 2025 using cluster sampling for vegetation analysis and snowball sampling for ethnobotanical interviews. Vegetation data were collected through nested plots and assessed using the Important Value Index (IVI), while ethnobotanical information was examined descriptively. Results show that *Anthoshorea javanica* (damar) dominates all growth stages, indicating strong ecological adaptation and consistent management. Thirty plant species were recorded, eight of which serve as food sources consumed fresh, cooked, or fermented, with fruits and leaves most commonly used. The findings reveal active natural regeneration, selective use of food plants, and culturally rooted processing practices that support household food resilience. Overall, Repong Damar reflects a balanced ecological structure and rich biocultural heritage, with strengthened documentation and diversification recommended for long-term food security.

Keywords: *Ethnobotany; Food plants; Repong Damar; Local Knowledge; Way Krui*

1. INTRODUCTION

Indonesia's food security is facing increasing pressure due to climate change, environmental degradation, land-use conversion, and socio-economic dynamics. Recent studies indicate that El Niño/La Niña events, floods, and droughts have led to declining crop productivity and have disrupted food availability and accessibility at the national level (Sihombing *et al.*, 2023). These conditions place vulnerable households—particularly those in rural areas and Indigenous communities—at heightened risk of food insecurity, as their food systems rely heavily on ecosystems that are increasingly degraded and insufficiently protected by policy frameworks.

On the other hand, Indonesia is a biodiversity hotspot with exceptionally rich genetic resources of local food plants, including various non-conventional species and those categorized as neglected and underutilized species. However, recent research shows that many of these local food resources are experiencing genetic erosion, declining utilization, and the loss of accompanying traditional knowledge, while scientific documentation and systematic databases remain

limited. As a result, this biocultural potential for food diversification and the strengthening of sustainable food security has not yet been fully integrated into national food planning and policymaking (Rahayu *et al.*, 2024).

In Lampung Province, several studies have examined the utilization of plants by local communities, including an ethnobotanical study of mangrove food plants in Pesawaran Regency (Riniarti, 2025) and an inventory of plant uses in Labuhan Ratu Village, East Lampung, which documented species used for food, medicine, construction materials, and cultural practices (Leksikowati *et al.*, 2019). Beyond Lampung, recent research also highlights the significance of local biodiversity as a food resource, such as ethnobotanical studies of food plants among the Malay community in Belitung Regency (Chikmawati *et al.*, 2023) and investigations of unconventional food plants (UFP) in rural areas of West Java (Rahayu *et al.*, 2024). However, these studies were conducted within coastal, rural, or distinct agroforestry ecosystems and do not specifically focus on the Repong Damar

agroforestry system in Way Krui District. On the other hand, studies on the Repong Damar system have predominantly focused on tree species diversity and vegetation structure (Bintoro *et al.*, 2022), as well as cultural values, cultural significance indices, and the role of vegetation in ecosystem conservation (Nugroho *et al.*, 2025). To date, no research has specifically documented and analyzed how local biodiversity within the Repong Damar agroforestry system in Way Krui is utilized as a food resource and directly linked to the food security of the local community. Therefore, research conducted in this area holds an important position in addressing this knowledge gap by providing ethnobotanical data on food resources that have not yet been mapped within the context of the Repong Damar system in Way Krui.

2. MATERIALS AND METHODS

2.1. Research Time and Location

This study was conducted from October to November 2025 in Way Krui Subdistrict, Pesisir Barat Regency, Lampung Province, an area widely recognized as the center of the traditionally managed Repong Damar agroforestry system. The research employed several instruments, including tally sheets for recording food-plant vegetation data, questionnaires for ethnobotanical information, a camera and recorder for field documentation and interview recording, raffia rope and measuring tape for establishing and measuring

The objectives of this study are threefold. First, it aims to analyze the biodiversity present within the Repong Damar agroforestry landscape in Way Krui District. Second, it seeks to identify the various ways in which this biodiversity is utilized as a food source through the ethnobotanical practices of communities in Way Krui District, West Pesisir Regency, Lampung. Third, the study endeavors to describe the methods employed by the local community in processing and preparing food materials derived from biodiversity resources. Collectively, these objectives are intended to generate comprehensive scientific insights into the biocultural relationships, food practices, and socio-ecological significance of biodiversity within the Repong Damar system.

sample plots, a hagameter for measuring tree height, sample bags for collecting plant specimens, and a plant identification key for morphological determination

All collected data were processed and visualized using Microsoft Excel to facilitate systematic analysis. The location of the study can be seen in Figure 1

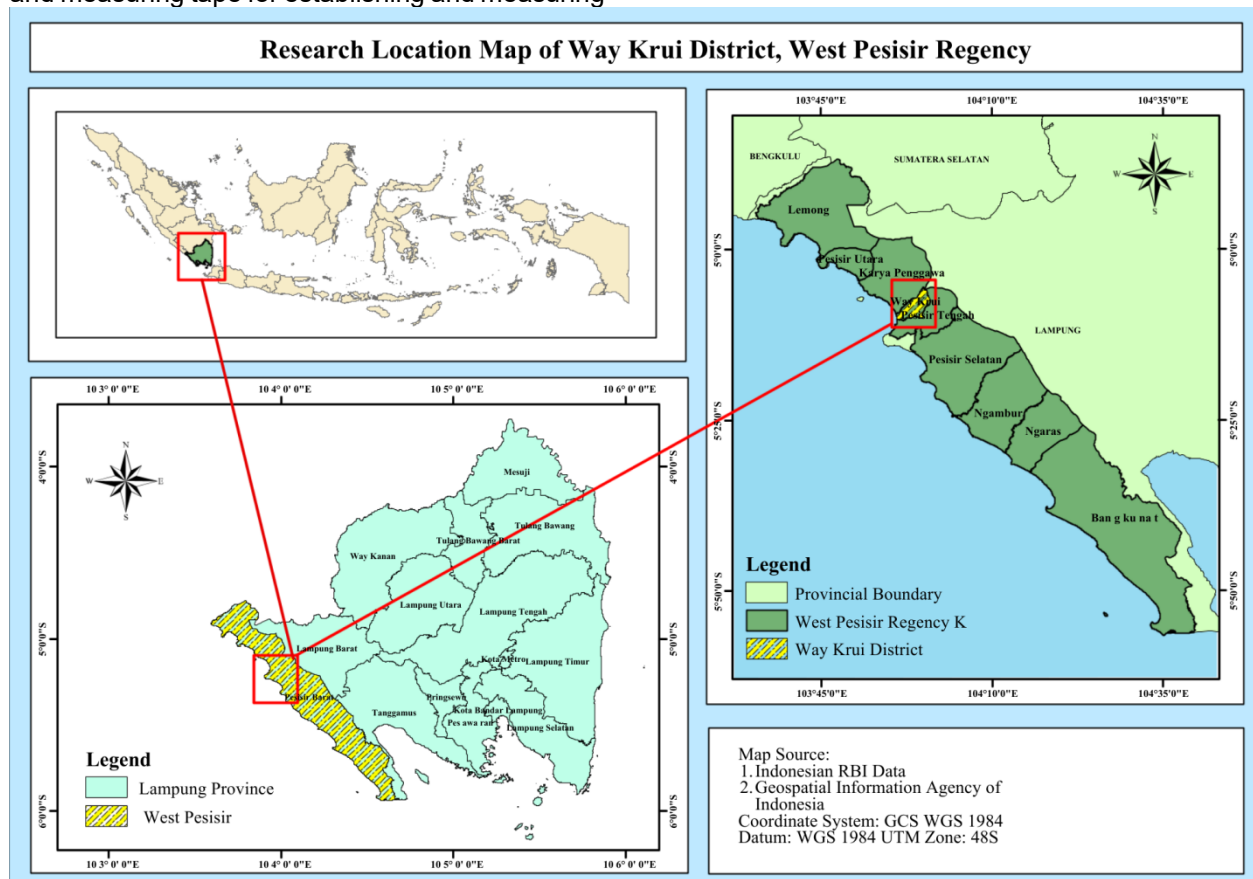


Figure 1. Location of Repong Damar in the Traditional Zone of Repong Damar in Way Krui Subdistrict, Pesisir Barat Regency, Lampung.

2.2. Sampling

This study was conducted in two stages—vegetation analysis and ethnographic investigation—each utilizing distinct sampling methods tailored to specific research objectives. The vegetation analysis employed a cluster sampling technique, in which the population was divided into clusters based on differences in Repong Damar management practices, resulting in two identified clusters: Repong Damar on *tanah marga*, referring to customary community-owned lands managed through hereditary systems and local norms, and Repong Damar located within the Limited Production Forest (Hutan Produksi Terbatas, HPT), an area regulated by the government yet still used by local communities for damar cultivation and mixed-cropping systems. This approach enabled the assessment of variation in food-plant diversity across different land-management types, particularly where probabilistic sampling was considered less effective. A total of 12 plots were established to obtain a representative vegetation composition, each arranged using nested subplots corresponding to growth stages commonly applied in studies of tropical stand structure (Nugroho, 2021): 20 × 20 m for trees, 10 × 10 m for poles, 5 × 5 m for saplings, and 2 × 2 m for seedlings. The ethnographic stage applied snowball sampling, as ethnobotanical knowledge is concentrated among specific individuals such as traditional elders and Repong Damar managers; informants were identified through successive recommendations until the information obtained was deemed sufficient and no longer yielded new data.

2.3. Parameters and Data

The vegetation data collected included plant species, number of individuals, stem diameter, and tree height for each species. The ethnobotanical data encompassed local plant names, the plant parts used, processing techniques, and the various forms of utilization in community livelihoods.

2.4. Research Implementation

The vegetation analysis began with the establishment of plots using a cluster sampling method. All plant species were identified using a botanical identification key, and the number of individuals of each species was recorded on a tally

sheet. Stem diameter (DBH) was measured at 1.3 meters above ground level using a measuring tape; for buttressed trees or those with aerial roots, measurements were taken 20 cm above the highest point of the buttress or root. Tree height was measured using a hagameter.

The ethnographic stage was conducted through semi-structured interviews to explore community knowledge related to plant utilization from experienced informants. Participatory observation was applied to directly document processing techniques and modes of plant use in daily activities. The information collected in this stage included local knowledge of plants, covering local plant names, plant parts utilized, processing techniques, and their applications by the community.

2.5. Data Analysis

Vegetation data were analyzed by calculating species counts and the Important Value Index (IVI) for each species. The IVI was used to assess species dominance based on relative density, relative frequency, and relative dominance, using the formula $IVI = RD + RF + RDo$ (Ndede et al., 2017). This formula was applied to determine the ecological contribution of each species within the vegetation structure of the repong damar system.

Ethnobotanical data were analyzed using a descriptive–analytical approach by categorizing information according to plant species, plant parts utilized, processing techniques, and forms of use. This descriptive–analytical method was employed to interpret the relationship between plant characteristics and cultural practices based on field data (Duryat & Riniarti, 2025). The analysis provides a comprehensive understanding of the patterns of biodiversity utilization by local communities within the repong damar system.

3. RESULTS AND DISCUSSIONS

3.1. to analyze the biodiversity found within the Repong Damar agroforestry landscape in Way Krui District.

The results of the study indicate that *damar* is the species with the highest importance value within its ecosystem. Across all four growth stages, *damar* demonstrated clear dominance by exhibiting the highest IVI values (Table 1).

Table 1. Important Value Index (IVI) of Repong Damar Vegetation in Way Krui District

No	Local Name	Scientific Name	IVI			
			Seedlings	Saplings	Poles	Trees
1	Petai	<i>Parkia speciosa</i>	11.43	20.26	18.06	12.62
2	Duku	<i>Lansium domesticum</i>	28.57	36.22	60.14	40.81
3	Damar	<i>Anthoshorea javanica</i>	31.48	81.93	76.73	112.81
4	Durian	<i>Durio zibethinus</i>	11.43	19.24	23.69	23.00
5	Kayu talas	<i>Chydenanthus excelcus</i>	2.86	9.83	-	2.00

6	Sungkai	<i>Peronema canescens</i>	20.00	5.03	14.17	8.20
Continued table						
7	Cempaka	<i>Magnolia champaca</i>	2.86	4.33	5.44	3.49
8	Bayur	<i>Pterospermum javanicum</i>	25.71	10.62	42.95	39.16
9	Haneban	<i>Vitex pinata</i>	14.29	9.36	3.88	13.83
10	Tupak	<i>Baccaurea racemosa</i>	5.71	13.91	-	6.11
12	Jengkol	<i>Archidendron pauciflorum</i>	2.86	13.49	13.44	5.73
13	Kayu timah	<i>Planchonella obovata</i>	5.71	-	-	-
14	Kayu lada	<i>Cinnamomum porrectum</i>	2.86	6.97	5.17	5.79
15	Salam	<i>Syzygium polyanthum</i>	2.86	-	-	-
16	Nangka	<i>Artocarpus heterophyllus</i>	-	3.35	-	4.57
17	Manggis	<i>Garcinia mangostana</i>	-	10.86	6.39	-
18	Jambu boll	<i>Syzygium malaccense</i>	-	4.20	-	-
19	Kerbang	<i>Artocarpus</i>	-	6.78	-	-
20	Heling	<i>Glochidion rubrum</i>	-	6.25	-	-
21	Dara	<i>Myristica iners Blume</i>	-	2.63	-	-
22	Kelawi	<i>Kibatalia maingayi</i>	-	2.77	4.08	-
23	Ingu-ingu	<i>Toona sureni</i>	-	3.84	-	-
24	Kayu sepat	<i>Macaranga triloba</i>	-	-	3.99	2.05
25	Mangga	<i>Mangifera indica</i>	-	-	8.00	-
26	Rukam	<i>Flacourtia rukam</i>	-	-	-	1.86
27	Ketinhuh	<i>Physalis angulata L</i>	-	-	-	1.94
28	Kayu rah	<i>Corymbia gummifera</i>	-	-	-	2.05
39	Rambutan	<i>Nephelium lappaceum</i>	-	-	-	2.03
30	Handitak	<i>Elaeocarpus spp.</i>	-	-	-	1.91

The results of the analysis in Table 1 show that the damar species (*Anthoshorea javanica*) had the highest IVI values across all growth stages, reaching 31.48 at the seedling stage, 81.93 at the sapling stage, 76.73 at the pole stage, and 112.81 at the tree stage. This dominance reflects the characteristic features of the repong damar ecosystem, in which damar functions as the primary species that shapes the structural and functional attributes of this agroforestry forest system. The high IVI values indicate that damar possesses strong competitive abilities in acquiring resources such as light, water, and nutrients, and demonstrates good ecological tolerance to local environmental conditions. In addition, damar dominance is strongly influenced by traditional management practices, where local communities have long maintained and replanted damar as the main economic resource through resin production. These findings are consistent with the study by Santoso (2023) in Pesisir Barat Regency, Lampung, which reported that damar is the species with the highest IVI in the tree stratum of repong systems due to intensive community management. Similar patterns have been reported in agroforestry

systems across Southeast Asia, such as benzoin forests in North Sumatra and damar-based agroforestry in the Philippines, which exhibit functional monodominance—where a key species dominates the canopy without reducing the diversity of understory vegetation (Zhang *et al.*, 2023). Thus, damar dominance not only reflects the species' ecological adaptability to the environment but also illustrates the interplay between ecological and sociocultural factors that reinforce the stability and sustainability of the repong damar ecosystem.

Although damar exhibited the highest IVI values across all growth stages, the presence of various associated species at the seedling and sapling stages indicates that natural regeneration processes are still actively occurring. The high IVI values of damar across all stages highlight its dominant role in shaping the structure and function of the repong damar ecosystem as the primary component of vegetation composition. Despite its dominance, the presence of accompanying species such as *Lansium domesticum* (duku), *Pterospermum javanicum* (bayur), *Parkia speciosa* (petai), and *Rhodamnia cinerea* (haneban) in the

lower strata demonstrates that natural regeneration continues and contributes to maintaining ecological balance reflecting a dynamic and natural ecological succession process. These findings indicate a balance between the dominant species (damar) and the associated species that contribute to maintaining vegetation heterogeneity in the lower canopy layers. This conclusion is supported by Harianto (2024), who found that in the Krui damar forest, high diversity in the seedling and sapling strata serves as an indicator of healthy natural regeneration. Mulyoutami (2023) also noted that traditional agroforestry systems in Southeast Asia tend to have a stable composition in the upper strata while exhibiting dynamic changes in the lower strata, which strengthens ecosystem resilience to environmental disturbances and climate variability. Overall, these results demonstrate that the sustainability of repong damar depends not only on the dominance of damar but also on the continued natural regeneration of associated species that enrich the

Tabel 2. Ethnobotany and its forms of utilization

No	Local Name	Scientific Name	Part Used	Processing Method
1	Jengkol	<i>Archidendron pauciflorum</i>	Buah	-Dimasak -Dimakan -Kerupuk
2	Durian	<i>Durio zibetinus</i>	Buah	-Dimakan langsung -Fermentasi
3	Tupak	<i>Baccaurea racemosa</i>	Buah	-Dimakan langsung
4	Petai	<i>Parkia Speciosa</i>	Buah	-Dimasak -Dimakan langsung
5	Mangga	<i>Mangifera indica</i>	Buah	-Dimakan langsung -Bahan campuran makanan
6	Kedimpul	<i>Claoxylon pauciform</i>	Buah	-Dimakan langsung
7	Duku	<i>Lansium domesticum</i>	Buah	-Dimakan langsung
8	Salam	<i>Syzygium polyanthum</i>	Salam	-Bahan campuran makanan

Rooted in local wisdom passed down across generations, communities living around the repong damar landscape utilize eight food-plant species with considerable selectivity, both in terms of the plant parts used and the methods of preparation. Jengkol is consumed in three primary forms—boiled/cooked, eaten fresh, or processed into crackers—not only due to its distinctive taste but also to reduce its strong odor and antinutritional compounds that may pose health risks, thereby making it safer and more

structural complexity of the vegetation community. Therefore, the management of repong damar should emphasize the maintenance of natural regeneration and the enrichment of local species to ensure that the ecosystem remains balanced, productive, and sustainable both ecologically and socioeconomically. The balance between damar dominance and the presence of associated species indicates that the repong damar system is the result of a synergy between ecological adaptation and traditional community management practices.

3.2 the utilization of biodiversity as a food source through the ethnobotanical practices of communities in Way Krui District, West Pesisir Regency, Lampung.

The ethnobotanical findings indicate that there are eight plant species in the repong damar system that can be utilized as food sources, along with the specific plant parts used and their forms of processing (Table 2)

socially acceptable to consume. Durian is eaten fresh during the fruiting season, while

fermentation (such as into *tempoyak*) serves as a strategy to extend shelf life, stabilize food supply after harvest season, and maintain preferred flavors. Tupak is consumed directly because of its relatively soft texture and pleasant taste, requiring no further processing, making it a practical fresh fruit snack. Petai and jengkol are

both eaten fresh or cooked; cooking methods such as stir-frying, boiling, or mixing into traditional dishes help reduce their strong aroma, improve palatability, and align with local culinary traditions dominated by sambal-based and savory dishes. Mango is consumed as fresh fruit or used as an ingredient in various preparations (such as *rujak*, sambal, or sour condiments), giving it a dual role as both a vitamin source and a flavor enhancer. Kedimpul and duku are eaten fresh because they are easy to consume, require no additional processing, and are generally associated with seasonal consumption during harvest periods. Meanwhile, salam leaves are not consumed as vegetables but used as seasoning due to their aromatic compounds that provide a distinctive flavor in traditional cooking; the selection of leaves (rather than fruit or bark) relates to their aroma intensity, ease of drying, and longer shelf life.

When compared with recent ethnobotanical studies in Indonesia, the patterns of utilization in repong damar show strong similarities. Rahayu *et al.* (2024) in West Java documented 52 species of *unconventional food plants* (UFPs) and showed that communities distinguish plants not only by species but also by the edible parts (fruit, leaves, flowers, tubers, seeds) and preparation methods such as boiling, stir-frying, eating raw, using them as fresh condiments, or fermenting them. Motivations for consuming UFPs were influenced by factors such as free availability, medicinal value, nostalgia, and taste—factors that also emerge in repong damar, where fermented durian, jengkol, and petai hold strong cultural and culinary significance. Ethnobotanical studies in Kampung Adat Banceuy, West Java, likewise recorded the use of various plant parts (leaves, fruits, tubers, flowers) prepared as vegetables, fresh condiments, snacks, and food substitutes, and were analyzed using quantitative ethnobotanical indices to evaluate the importance of each species in local food systems. Similar findings were also reported in studies of wild edible plants in Cijambu Village, West Java, where the selection of plant parts and processing methods was closely tied to traditional ecological knowledge (TEK) and local culinary practices (Sholichah & Alfidhdhoh, 2020).

In the agroforestry context, comparable patterns also appear in the coffee-based agroforestry landscape of Kalibaru District, Banyuwangi. Ethnobotanical research in this region shows that shade trees and understory plants (*undercover*) are widely used as food, with different plant parts utilized—such as leaves, flowers, and papaya fruits for vegetables and traditional dishes, and tubers like cassava and taro processed into various products (boiled, chips, traditional cakes) as alternative carbohydrate sources replacing rice (Pribadi *et al.*, 2024). This indicates that, as in the repong damar system, the selection of plant parts (fruit

vs. leaves vs. tubers) and processing methods (fresh, cooked, fermented, dried) represents a long-term adaptation to ecological availability, nutritional needs, taste preferences, and cultural practices. At the regional level, ethnobotanical studies in Bali also recorded numerous wild and semi-cultivated edible plants used as vegetables, fruits, and seasonings, which play an important role in cultural identity and local food security—now increasingly threatened by modern lifestyle changes.

Thus, the utilization of the eight food-plant species in repong damar does not stand alone but aligns with patterns reported in various ethnobotanical studies across Indonesia and Southeast Asia: (1) communities tend to select plant parts that are safest, most palatable, and nutritionally beneficial (e.g., aromatic leaves like salam, sweet fruits like duku and kedimpul, or protein-rich seeds like jengkol and petai); (2) processing techniques (boiling, cooking, fermenting, drying) are employed to enhance flavor, extend shelf life, reduce undesirable compounds, and fit local culinary traditions; and (3) these practices simultaneously function as strategies for local food security by utilizing resources available within the agroforestry system without relying exclusively on market-dependent foods. These patterns affirm that ethnobotanical practices in repong damar represent an integration of ecological function, nutritional value, and cultural meaning within a sustainable community-managed forest landscape.

3.3. methods of processing and presenting biodiversity-based food materials practiced by the local community

The methods of processing and presenting food materials derived from biodiversity in the repong damar landscape reflect patterns that align with ethnobotanical findings from various regions in Indonesia while illustrating causal relationships between plant characteristics, nutritional needs, taste preferences, and local food security strategies. Jengkol, petai, and durian, for example, are consumed both fresh and after undergoing processes such as cooking or fermentation, where cooking serves to reduce strong odors and antinutritional compounds, and fermentation—such as in *tempoyak*—extends shelf life and stabilizes food availability beyond the fruiting season. This pattern is consistent with findings from rural West Java, where unconventional food plants are processed in various forms—raw, boiled, stir-fried, or fermented—based on taste, accessibility, and perceived health benefits (Rahayu *et al.*, 2024). Similarly, the tendency of repong damar communities to consume fruits such as tupak, kedimpul, duku, and mango directly without complex preparation mirrors the consumption practices documented in Kampung Adat Banceuy

and Cijambu, West Java, where fresh foods, boiled vegetables, and stir-fried dishes dominate daily diets, and leaves, fruits, and flowers play roles as vitamins, vegetables, and condiments (Raihandhany & Purnomo., 2024). In Cijambu, leaves are the most frequently utilized plant parts, followed by flowers and fruits, reflecting traditional ecological knowledge shaped by long-term human–environment interaction (Alfinandah *et al.*, 2025), providing a causal explanation for the use of salam leaves in repong damar as aromatic enhancers that are easily dried and stored.

When compared with other agroforestry systems, such as coffee-based agroforestry in Kalibaru, Banyuwangi, similar structural patterns emerge, where shade trees and understory plants function as vegetables, fruits, and alternative carbohydrate sources processed through boiling, frying, drying, and traditional cake making (Pribadi *et al.*, 2024). These parallels demonstrate that in community-managed agroforestry systems, the choice of plant parts and processing methods represents adaptive responses to seasonal availability, household needs, and the goal of maintaining food security. Collectively, the food processing and preparation practices within the repong damar system represent not only cultural richness but also ecological and economic strategies that support the resilience of local food systems, consistent with broader ethnobotanical patterns across Indonesia.

4. CONCLUSIONS

The conclusions obtained from this study are as follows:

1. The plant biodiversity of the Repong Damar system in Way Krui, which consists of 25 identified species, reflects a stable and well-managed ecological landscape. The high Importance Value Index (IVI) of damar confirms its role as the ecologically dominant species structuring the vegetation, while the presence of various accompanying species indicates that natural regeneration processes remain active. This condition implies that the long-term sustainability of the repong damar ecosystem is strongly dependent on the ecological resilience of damar, and that supporting species contribute significantly to maintaining ecosystem stability. Future research should focus on long-term monitoring of stand structure and regeneration dynamics, genetic diversity assessments of damar populations, and evaluations of ecosystem services—such as carbon storage and habitat provision—to strengthen community-based conservation strategies.
2. The utilization of only eight plant species out of the 25 recorded reflects a selective approach in the use of food resources, with fruits and leaves being the most commonly used plant

parts. This selectivity indicates a strong foundation of ethnobotanical knowledge, yet it also suggests that a substantial portion of available plant biodiversity remains underutilized. Such underutilization may influence the continuity of traditional knowledge, particularly among younger generations who may be unfamiliar with less commonly used species. Therefore, future studies should investigate the nutritional potential of all recorded species, examine intergenerational variations in plant-use knowledge, and explore value-added opportunities for local food products to enhance their contribution to community food security and local livelihoods.

3. The eight plant species used as food by local communities are generally easy to process—whether consumed fresh, cooked, mixed into dishes, or fermented—supporting flexibility in food utilization and contributing to household-level food security. This ease of processing also reinforces traditional food practices within the repong damar system as a form of biocultural heritage passed down across generations. The diversity of preparation methods reflects ecological and economic strategies that strengthen the resilience of local food systems. Future research should prioritize the formal documentation of traditional food processing techniques, the development of innovative food products based on local biodiversity, and comparative analyses of agroforestry-based food systems to establish repong damar as a replicable model for sustainable food security.

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REFERENCES

- Alfinandah, A., Irawan, B., & Iskandar, J. (2025). Etnobotani tumbuhan liar yang dapat dimakan oleh masyarakat Desa Cijambu, Kabupaten Sumedang, Jawa Barat, Indonesia. *Jurnal Keanekaragaman Hayati Keanekaragaman Hayati*, 26(5): 2235-2252.
<https://doi.org/10.13057/biodiv/d260521>
- Bintoro, A., Harianto, S. P., & Dewi, B. S (2021). Keanekaragaman Hayati Pohon Di Repong Dama Krui.
<https://doi.org/10.23960/jopfe.v2i1.6006>
- Chikmawati, T., Sulistrijoni, S., Djuita, N. R., Prasaja, D., Alyamini, T. H., Miftahudin, M.,

- & Fakhurrozi, Y. (2023). Ethnobotany of food plants utilized by Malay Ethnic in Belitung District, Indonesia. *Biodiversitas Journal of Biological Diversity*, 24(5).
<https://doi.org/10.13057/BIODIV/D240552>
- Duryat, D., & Riniarti, M. (2025). Kajian Etnobotani Pemanfaatan Mangrove Sebagai Bahan Pangan di Pesisir Tulang Bawang. *Jurnal Sylva Scienteeae*, 8(1), 80-87.
<https://doi.org/10.32734/jsi.v8i2.16758>
- Harianto, S. P., Dewi, B. S., & Bintoro, A. (2024). Konservasi vegetasi dinamis Repong Damar. Dalam *Prosiding Konferensi AIP*, 2970, 1 (050048). AIP Publishing LLC.
- Leksikowati, S. S., Oktaviani, I., Ariyanti, Y., & Akhmad, A. D (2019). Studi etnobotani tumbuhan yang dimanfaatkan masyarakat di Desa Labuhan Ratu, Kabupaten Lampung Timur. Dalam *Seri Konferensi IOP: Ilmu Bumi dan Lingkungan*, 258, 1(012027). Penerbitan IOP. [10.1088/1755-1315/258/1/012027](https://doi.org/10.1088/1755-1315/258/1/012027)
- Mulyoutami, E., Tata, H. L., Silvianingsih, Y. A., & van Noordwijk, M. (2023). Agroforests as the intersection of instrumental and relational values of nature: gendered, culture-dependent perspectives?. *Current Opinion in Environmental Sustainability*, 62, (101293).
<https://doi.org/10.1016/j.cosust.2023.101293>
- Ndede, I. G., Tasirin, I. J. S., & Sumakud, I. M. Y. (2017). Komposisi dan struktur vegetasi Hutan Mangrove di Desa Sapa Kabupaten Minahasa Selatan (*Composition And Structure Vegetation Of Mangrove Forest In Sapa Village, South Minahasa District*). In *Cocos*, 8, (6)
<https://doi.org/10.35791/cocos.v1i5.16614>
- Nugroho, B., Sinery, A. S., Purnawati, R., Runtuboi, Y. Y., Siburian, R. H. S., & Sutiharni, S. (2025). Community cultural aspects and vegetation importance in conservation of Repong Damar Forest. *Journal of Global Innovations in Agricultural Sciences*, 13(4).
DOI:
<https://doi.org/10.22194/JGIAS/25.1768>
<http://www.jgiass.com>
- Pribadi, A. P., Nurrofik, A., Evabian, C. H. B., & Yuwafi, H. (2024). Ethnobotanical Study of Potential Food-Utilization of Shade and Undercover Vegetation in the Coffee Agroforestry Landscape, Kalibaru District, Banyuwangi Regency. *Jurnal Of Coffe And Sustainability*. 10(1): 1-16.
<https://doi.org/10.21776/ub.jcs.2024.01.01.01>
- Rahayu, Y. Y. S., Sujarwo, W., Irsyam, A. S. D., Dwiartama, A., & Rosleine, D. (2024). Menjelajahi tanaman pangan non-konvensional yang digunakan oleh masyarakat lokal di daerah pedesaan Jawa Barat, Indonesia: kajian etnobotani, tren pemanfaatan, dan potensi perbaikan gizi. *Jurnal Etnobiologi dan Etnomedik*, 20(1), 68.
<https://doi.org/10.1186/s13002-024-00710-y>
- Raihandhany, R., & Purnomo, P. (2024). Inventarisasi tanaman pangan fungsional di kampung adat banceuy: antara pangan, tradisi, dan kesehatan. Dalam *Prosiding Seminar Nasional Matematika dan Sains*, 6, 1 (209-218).
- Santoso, T., Paridduar, R., & Bintoro, A. (2023). Plant diversity under traditional agroforestry system of repong damar in Pesisir Barat District, Lampung Province, Indonesia. *Biodiversitas Journal of Biological Diversity*, 24(8).
DOI: [10.13057/biodiv/d240849](https://doi.org/10.13057/biodiv/d240849)
- Sholichah, L., & Alfidhdhoh, D. (2020). Etnobotani tumbuhan liar sebagai sumber pangan di dusun mendiro, kecamatan wonosalam, jombang. *Jurnal Ilmu Pertanian Indonesia*, 25(1), 111-117.
<https://doi.org/10.18343/jipi.25.1.111>
- Sihombing, V. U., Siadari, U., Sari, R., & Munthe, M. A. (2023). The impact of climate change on productivity and food security in Indonesia. *Journal of Agri Socio Economics and Business*, 5(02), 191-202.
<https://doi.org/10.31186/jaseb.5.2.191-202>
- Zhang, W., Su, K., Wang, Q., Yang, L., Sun, W., Ranjitkar, S., & El-Kassaby, Y. A. (2023). Agroforestry species selection for forest rehabilitation in the asia-pacific region: a meta-analysis on high-level taxonomy. *Forests*, 14(10), 2045.
<https://doi.org/10.3390/f14102045>