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Inventory and Analysis of Floral Species Diversity as Educational Tourism Potential in Sodong Village

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Abstract

Sodong Village has developed the Sodong Educational Tourism area based on agribusiness, but the potential floral diversity in the area has not yet been scientifically documented. This study aims to: (1) inventory the flora species in Sodong Educational Tourism along with their taxonomic classification and morphological characteristics; (2) analyze the pattern of flora utilization by the community; (3) examine their ecological roles; and (4) analyze the potential of floral species diversity as capital for developing botanical educational tourism. The method employed was the cruise method, which utilized a descriptive exploratory approach, incorporating field observations, morphological documentation, semi-structured interviews with managers and community members, and a literature review. Data were tabulated based on taxonomy, habitus, morphology, utilization, and ecological roles. The results found 27 flora species from 17 families, dominated by Cucurbitaceae (4 species), followed by Solanaceae and Myrtaceae (3 species each). The flora is divided into seasonal horticultural plants and annual fruit plants (creeping/upright herbs, shrubs, to trees). The community utilizes this flora as a source of food, traditional medicine, handicraft materials, and economic commodities. Ecologically, the flora functions as a pollinator attractor (confirmed through field observation & literature), ground cover (soil preservation), microclimate shade provider, and fauna feed provider. This taxonomic, morphological, utilization, and ecological diversity proves that Sodong Edu-Tourism has potential as a resource for developing an educational and botanical conservation area.

Keywords: Flora Species Diversity; Plant Inventory; Botanical Educational Tourism; Local Wisdom; Sodong Village

INTRODUCTION

Floral biodiversity is one of the important ecological and economic assets for a region, because in addition to functioning to sustain ecosystem balance and support various ecosystem services that support human well-being (Cardinale et al., 2012), this diversity can also be developed into an educational tourism (edu-tourism) attraction that provides added value for the surrounding community (Kusmana & Hikmat, 2015). Flora-based edu-tourism combines recreational activities with learning about botany, ecology, and ethnobotany, so that visitors not only enjoy the natural environment but also gain knowledge of plant species, their morphological characteristics, and their use in daily life (Tahri & Marianingsih, 2024).

Efforts to instill awareness of biodiversity conservation from an early age through learning, both in the classroom and through field assignments outside the classroom, have proven effective in increasing the caring attitude of prospective teacher students towards the conservation of flora in their surrounding environment (Rachmawati et al., 2024). This confirms that documenting and introducing a region's floral diversity is not only beneficial for

tourism purposes but can also serve to strengthen the ecological literacy of the younger generation.

Sodong Village has developed the Sodong Edu-Tourism area covering approximately 6 hectares as an agribusiness-based tourist destination, independently managed by the local community and inaugurated on 13 November 2024. Sodong Village Edu-Tourism is not merely a recreational site, but can serve as a means of learning, research, empowerment, and a space for community interaction in strengthening the development of local potential. This area brings together various types of seasonal horticultural plants as well as annual fruit plants. Mixed gardens of this kind are globally recognized as one of the hotspots of agrobiodiversity and cultural diversity that play an important role in the conservation of cultivated plant germplasm (Galluzzi et al., 2010) , while also proven to be able to sustain plant species diversity while still providing economic and food benefits for households (Kabir & Webb, 2008) . This kind of management model is in line with the concept of community-based tourism, namely a tourism development model that positions the community as both the owner and main manager of the destination, with a fairer distribution of economic, social, and environmental benefits for the local community (Pantiyasa, 2018). Community empowerment based on local potential of this kind has actually been pioneered in Sodong Village through a hydroponic cultivation mentoring program by the Agradipa Community since 2019, which has proven able to increase residents' knowledge, skills, and income through the utilization of narrow land amid the conversion of village agricultural land (Rabbani & Hermansah, 2024). However, to date there is no systematically documented flora inventory data available in the Sodong Edu-Tourism area. In fact, documentation of floral species diversity is an important basis for compiling educational materials, determining interpretation routes, and developing tourism attraction strategies based on local potential.

A number of previous studies have examined floral diversity in various tourist areas and community yards. Neagara et al. (2023) inventoried flora and fauna in the Kasinan Protected Forest, Batu City, and found high species variation as a basis for conservation area management. Baderan et al. (2021) examined the diversity, evenness, and richness of plant species at potential geosites in Gorontalo as a pioneer for geopark development. Fitriani et al. (2021) and Silalahi (2016) documented vegetation diversity in yard land as part of a household agroforestry system rich in benefits. More specifically in the edu-tourism context, Tahri & Marianingsih (2024) inventoried 27 flora species from 16 families at Villa Tani Indonesia Edu-Tourism and confirmed that cultivated floral diversity can become both an attraction and educational material for visitors.

Although the studies above have provided important groundwork on vegetation inventory, there are fundamental differences and limitations in approach compared to this study. The research by Neagara et al. (2023) and Baderan et al. (2021) focused on natural ecosystems and conservation geosites with wild vegetation without highlighting the local wisdom aspect of community utilization. Meanwhile, the studies by Fitriani et al. (2021) and Silalahi (2016) were limited to private household yard spaces that were not designed as public tourist areas. The research by Tahri & Marianingsih (2024) did examine an edu-tourism area, but was limited to documenting a taxonomic list without deeply analyzing the specific ecological roles (such as pollinator interactions and vegetation stratification) or integrating them with the local wisdom potential of the local community. The novelty and main contribution of this study lies in the holistic approach that combines taxonomic inventory, local wisdom ethnobotanical studies, mapping of ecological functions, and formulation of edu-tourism strategies for Sodong Village.

Based on the background and research gap described above, this study aims to: (1) inventory the flora species found in the Sodong Edu-Tourism area along with their taxonomic classification and morphological characteristics; (2) analyze the pattern of utilization by the local community; (3) examine and clarify the interpretive basis of the ecological roles of flora species in the ecosystem of the area; and (4) analyze the potential of floral diversity as the main capital for developing edu-tourism in Sodong Village.

METHOD

This research is a descriptive exploratory study conducted in the Sodong Edu-Tourism area, Sodong Village, Tigaraksa District, Tangerang Regency. The object of the research was all flora species cultivated or growing naturally in the ±6-hectare edu-tourism area, including horticultural plants, fruit plants, and other yard plants that are part of the edu-tourism attraction.

Research participants included the managers and residents of Sodong Village who are directly involved in the cultivation and maintenance of plants in the edu-tourism area, who served as key informants in gathering data on utilization and local wisdom. The instruments used consisted of a digital camera for morphological documentation and a visual gallery of each species, field inventory sheets, stationery, as well as plant taxonomic identification guidebooks and reference literature for verifying scientific names.

Data collection was carried out through three main techniques: (1) the cruise method across the entire edu-tourism area block to record and document each flora species; (2) semi-structured interviews with managers and the community to collect ethnobotanical data; and (3)

direct field observation combined with literature study to identify the ecological roles of the flora.

To ensure clarity between empirical findings and literature review in determining ecological roles, ecological data collection was carried out using a two-tiered approach, namely:

a. Direct Field Observation (Empirical), carried out by observing the direct presence of pollinator fauna/vectors on plant flowers, the presence of fruit-eating fauna (frugivores) such as birds and bats, as well as visual observation of the canopy architecture of shade trees and ground cover vegetation at the edu-tourism site.
b. Literature Study Interpretation (Literature), used to strengthen and verify specific ecological mechanisms that could not be consistently observed in the field, such as the physiological role of soil water absorption, microscale erosion prevention, and specific nutrient content of fauna feed based on accredited scientific journals.

The inventory data results were tabulated descriptively and qualitatively based on taxonomic classification, habitus, morphological characteristics, local community utilization, and ecological roles (with a clear separation between empirical observation and literature). Taxonomic composition was analyzed by calculating the percentage proportion of families. Furthermore, the inventory findings were analyzed to formulate an edu-tourism development strategy for Sodong Village.

RESULTS AND DISCUSSION

Taxonomic Composition of Sodong Edu-Tourism Flora

The inventory results in the Sodong Edu-Tourism area found 27 flora species divided into 17 families (Table 1). The family composition was dominated by Cucurbitaceae with 4 species (14.8%), namely cucumber (*Cucumis sativus*), bitter gourd (*Momordica charantia*), angled luffa/gambas (*Luffa acutangula*), and melon (*Cucumis melo*). The next dominant families were Solanaceae and Myrtaceae, each represented by 3 species (11.1%). Solanaceae was represented by tomato, chili pepper, and purple eggplant, while Myrtaceae was represented by guava, Salam leaf, and water apple. A total of 14 other families were represented by 1 to 2 species, indicating fairly high taxonomic variation for a rural-scale edu-tourism area.

Table 1. Family Composition of Flora in Sodong Edu-Tourism

Family	Number of Species	Percentage (%)
Cucurbitaceae	4	14.8
Solanaceae	3	11.1
Myrtaceae	3	11.1
Malvaceae	2	7.4
Sapindaceae	2	7.4
Anacardiaceae	2	7.4
Fabaceae	1	3.7
Moraceae	1	3.7
Sapotaceae	1	3.7
Annonaceae	1	3.7
Rutaceae	1	3.7
Cactaceae	1	3.7
Oxalidaceae	1	3.7
Musaceae	1	3.7
Lauraceae	1	3.7
Convolvulaceae	1	3.7
Caricaceae	1	3.7

The dominance of the Cucurbitaceae and Solanaceae families in Sodong Edu-Tourism is in line with the findings of Tahri & Marianingsih (2024) at Villa Tani Indonesia Edu-Tourism, which also recorded both families as the main plant groups. This similarity is caused by the characteristics of both families as seasonal horticultural plants with relatively short harvest cycles and maintenance that is affordable for the local community. However, the difference lies in the landscape structure and species variation: Villa Tani Edu-Tourism is dominated by uniform commercial vegetable commodities, while Sodong Edu-Tourism has a much higher composition of the Myrtaceae, Sapindaceae, and Anacardiaceae families. This provides an advantageous contribution in the form of annual fruit tree habitus variation that creates a multi-layer canopy landscape and a richer diversity of local wisdom utilization in Sodong Village.

List of Species, Habitus, and Utilization/Local Wisdom

The complete inventory results of 27 flora species along with their taxonomy, habitus, local wisdom utilization, and ecological roles are presented in Table 2. In terms of habitus, the flora in the edu-tourism area is divided into creeping herbs (5 species), upright herbs (2 species), giant herbs (1 species), aquatic creeping herbs (1 species), shrubs (3 species),

creeping/succulent cactus (1 species), and trees (14 species). This habitus diversity forms a vegetation stratification that enriches the visual variation of the edu-tourism landscape.

Table 2. Inventory of Flora Species, Family, Habitus, Local Utilization, and Ecological Roles in Sodong Edu-Tourism

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
1	Cucumber/Bonteng (*Cucumis sativus*)	Cucurbitaceae	Creeping herb	Fresh vegetable (raw salad), skin-care ingredient (mask), blood-pressure-lowering remedy.	Empirical: Attracts pollinating insects (*Apis cerana* bees observed on flowers). Literature: Ground cover (groundcover) that restrains erosion rate.
2	Bitter gourd/Pare (*Momordica charantia*)	Cucurbitaceae	Creeping herb	Characteristically bitter cooking vegetable, traditional remedy for diabetes and blood purifier.	Empirical: Attracts pollinating insects. Literature: Natural biopesticide and micro ground cover.
3	Tomato (*Solanum lycopersicum*)	Solanaceae	Upright herb	Cooking seasoning, chili-sauce (sambal) complement, juice drink or eaten directly.	Empirical: Attracts pollinators. Literature: Provides microhabitat for predatory insects of pests.
4	Chili pepper (*Capsicum frutescens)*	Solanaceae	Short shrub/Bush	Main spicy seasoning for cooking, appetite stimulant.	Empirical: Attracts pollinators when flowering. Literature: Maintains topsoil moisture.
5	Yardlong bean	Fabaceae	Creeping herb	Cooked as	Empirical:

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
	(*Vigna unguiculat*a subsp. *sesquipedalis*)			vegetable; young leaves (lembayung) picked for raw salad.	Attracts pollinators. Literature: Free nitrogen fixation through symbiosis with Rhizobium root nodules.
6	Angled luffa/Gambas (*Luffa acutangula*)	Cucurbitaceae	Creeping herb	Clear vegetable soup; mature fruit dried into a natural bathing/washing sponge.	Empirical: Attracts bees and pollinating insects. Literature: Ground cover that shades the topsoil.
7	Purple eggplant (*Solanum melongena*)	Solanaceae	Short shrub/Bush	Food ingredient/processed vegetable dish (balado/lodeh).	Empirical: Attracts pollinators. Literature: Provides microhabitat for soil fauna.
8	Okra (*Abelmoschus esculentus*)	Malvaceae	Upright herb	Vegetable, or used as a remedy for blood sugar.	Empirical: Attracts pollinating bees. Literature: Provides nutrient-rich nectar and pollen.
9	Guava (*Psidium guajava*)	Myrtaceae	Small tree/Tall shrub	Consumed as fresh fruit or in rujak; young leaves used for diarrhea remedy.	Empirical: Feed for frugivorous birds and provides shade. Literature: Air biofilter and erosion preventer through its root system.
10	Salam Leaf	Myrtaceae	Medium-large	Kitchen	Empirical:

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
	(*Syzygium polyanthum*)		tree	seasoning to flavor dishes, herbal remedy for hypertension and cholesterol.	Shades the area and feeds birds. Literature: Carbon absorber and provider of organic litter.
11	Jackfruit (*Artocarpus heterophyllus*)	Moraceae	Tree	Ripe fruit consumed fresh; young fruit used as vegetable ingredient (gudeg/gulai); hardwood timber.	Empirical: Main shade provider of the edu-tourism site and feed for mammals/birds. Literature: Groundwater conservation and pollutant absorber.
12	Water apple (*Syzygium aqueum*)	Myrtaceae	Small-medium tree	Consumed as fresh fruit/rujak; shade plant for the yard.	Empirical: Feed for birds and attracts bees when flowering. Literature: Provides microclimate humidity around the canopy.
13	Longan (*Dimocarpus longan*)	Sapindaceae	Tree	Fruit consumed directly.	Empirical: Attracts honeybee pollinators when flowering. Literature: Canopy filters solar radiation.
14	Sapodilla (*Manilkara zapota*)	Sapotaceae	Medium-large tree	Directly consumed as sweet fresh fruit.	Empirical: Provides shade and feed for fruit-eating

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
					bats. Literature: Holds soil structure against water accumulation.
15	Soursop (*Annona muricata*)	Annonaceae	Small tree	Fresh fruit/juice; leaves used as a traditional anticancer remedy.	Empirical: Feed for insects and partial shade provider. Literature: Produces natural insecticidal compounds (acetogenins).
16	Mango (*Mangifera indic*a)	Anacardiaceae	Large tree	Fresh/processed fruit, shade for house yard; young leaves used as fresh vegetable (raw salad).	Empirical: Main shade provider for the resting area and feed for fauna. Literature: Controls rainwater runoff (canopy interception).
17	Limau (*Citrus amblycarpa*)	Rutaceae	Woody shrub/Bush	Seasoning and flavor enhancer for dishes (sambal/soto); removes fishy odor.	Empirical: Attracts butterflies and bees. Literature: Produces essential oils that naturally repel pests.
18	Dragon fruit (*Selenicereus costaricensis*)	Cactaceae	Creeping cactus/Succulent	Consumed as fresh fruit; natural food coloring; natural cosmetic dye.	Empirical: Night-blooming flowers attract moths/bats. Literature: Water-use efficiency

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
					adaptation on dry land.
19	Rambutan Parakan (*Nephelium lappaceum*)	Sapindaceae	Medium tree	Fruit consumed directly; trunk or branches can be used as firewood.	Empirical: Provides landscape shade and feed for birds. Literature: Contributes soil organic matter through leaf litter.
20	Bilimbi Wuluh (*Averrhoa bilimb*i)	Oxalidaceae	Small tree	Cooking seasoning for natural sourness; remedy for mouth ulcers.	Empirical: Attracts insects and provides light shade. Literature: Bioindicator of rural environmental quality.
21	Melon (*Cucumis melo)*	Cucurbitaceae	Creeping herb	High-economic-value fresh fruit for consumption.	Empirical: Attracts pollinating bees. Literature: Soil surface cover.
22	Banana (*Musa paradisiaca*)	Musaceae	Giant herb	Processed as fried/boiled banana; leaves used to wrap traditional food; pseudostem used as handicraft material.	Empirical: Provides feed and shelter for fauna. Literature: Stores a high reserve of water within its stem.
23	Durian (*Durio zibethinus*)	Malvaceae	Large tree	High-value fresh fruit consumption ("King of Fruits"); wood for light construction.	Empirical: Shade-providing canopy and feed for mammals/bats. Literature: Preserves

No	Local Name (Scientific Name)	Family	Habitus	Utilization / Local Wisdom	Ecological Role (Basis of Interpretation)
					upper-canopy fauna diversity.
24	Avocado *(Persea americana)*	Lauraceae	Medium-large tree	Fresh fruit/juice consumption; leaves used as herbal remedy for kidney stones.	Empirical: Provides shade and feed for birds. Literature: Strengthens soil structure through deep taproots.
25	Cashew (*Anacardium occidentale*)	Anacardiaceae	Small-medium tree	High-value cashew nuts for sale; the fruit is used for processed vegetable dishes or eaten directly.	Empirical: Attracts pollinators and provides shade. Literature: Conservation plant for dry and steep land.
26	Water spinach (*Ipomoea aquatica*)	Convolvulaceae	Trailing/Aquatic herb	Green vegetable for stir-frying or plecing.	Empirical: Covers the surface of wet areas. Literature: Water phytoremediation and ditch-erosion prevention.
27	Papaya (*Carica papaya*)	Caricaceae	Woody herb/Soft-wood tree	Fresh fruit, digestive aid; young leaves used as remedy for malaria and to tenderize meat.	Empirical: Feed for frugivorous birds and attracts pollinators. Literature: Provides papain enzyme and improves soil structure.

The pattern of flora utilization in Sodong Edu-Tourism reflects strong local wisdom. All species (27 species) are utilized as a food source, either consumed fresh (such as mango, rambutan, longan, sapodilla, durian, and avocado) or processed into dishes (such as cucumber,

bitter gourd, eggplant, yardlong bean, and water spinach). In addition to being a food source, at least 9 species are also utilized as traditional medicine ingredients, such as cucumber fruit as a blood pressure reducer, bitter gourd fruit as a diabetes remedy and blood purifier, guava leaves and fruit to treat diarrhea, Salam leaf for hypertension and cholesterol, soursop leaf as a traditional anticancer remedy, bilimbi to treat mouth ulcers, and papaya fruit for digestion. This finding is connected to previous research by Karina (2014) and Silalahi (2016), which confirmed that community yard plants are generally multipurpose, combining food, health, and household economic functions simultaneously. This finding is also in line with an ethnobotanical study in Ecuadorian Amazon home gardens, which showed that traditional ecological knowledge regarding medicinal yard plants remains an important source of health services for rural communities across cultures (Caballero-Serrano et al., 2019) . Distinctive non-food local wisdom was also found in the utilization of mature luffa as a natural cleaning sponge, banana leaves for food wrapping or decoration making, and banana pseudostem as a handicraft material, which shows the continuity of local knowledge as emphasized in ethnobotanical studies (Sõukand et al., 2024) . The existence of such local wisdom information can enrich the potential of ethnobotanical educational material, because visitors are not only introduced to plant names and morphology alone.

Basis for Interpretation of the Ecological Roles of Flora

In addition to their direct utilization functions for humans, the inventoried flora also has important ecological roles in sustaining the ecosystem balance of the edu-tourism area. This study explicitly distinguishes between empirical findings from direct field observation and literature-based interpretation (Table 2).

1. Pollinator Attractor: Empirical field observation confirmed the direct presence of pollinating insects (*Apis cerana*, *Trigona* sp., and butterflies) on the flowers of Cucurbitaceae (cucumber, bitter gourd, luffa) and Solanaceae. Meanwhile, the specific mechanism regarding nectar and pollen composition was interpreted based on the literature by Klein et al. (2007).
2. Landscape & Microclimate Shading: Empirical observation recorded the presence of wide-canopy trees (mango, jackfruit, durian) that were shown to actually lower the surface temperature of the visitor resting area. The role of reducing radiation and rainwater interception was confirmed through vegetation ecology literature.
3. Fauna Feed Provider: The presence of frugivorous birds and bats consuming guava, sapodilla, and papaya fruit was directly observed at the site in the morning and evening (empirical).

4. Ground Cover & Root Ecology: The role of creeping herb plants (water spinach, melon) as ground cover was observed on site, while the physiological function of nitrogen fixation in yardlong bean (Fabaceae) and erosion prevention in the soil was interpreted based on literature (Cardinale et al., 2012).

This diversity of ecological roles confirms that the Sodong Edu-Tourism area does not merely function as a production area, but also as a microhabitat that supports ecological interactions between flora and fauna, in line with the principle of biodiversity as a support for ecosystem services ((Kusmana & Hikmat, 2015).

Potential of Flora Diversity as an Edu-Tourism Development Strategy

The finding of 27 flora species with taxonomic, morphological, local wisdom, and ecological function diversity proves that Sodong Edu-Tourism has highly potential resource capital to be developed as botanical edu-tourism. In line with the principles of Pantiyasa (2018) and Tolkach & King (2015), the active involvement of rural residents in land cultivation is a major social capital, so that local tour guide training may be needed, as demonstrated by the success of the community participation model in the development of Kalibiru ecotourism (Pudyatmoko et al., 2020). Field observation results show that this floral potential can address the objectives of edu-tourism development through four concrete strategies:

1. Installation of Information Boards & Location Mapping: Providing a distribution map guide of the flora collection based on habitus zoning in the edu-tourism area.
2. Digitalization of Information Based on QR Codes: Installing QR code boards for each plant species linked to a digital database containing scientific name/taxonomy, morphology, local wisdom, and ecological role. This strategy is in line with the effectiveness of QR-code media in improving access to environmental education (Aji & Supriyono (2020); (Nugroho & Rahmadi, 2025)).
3. Integration of Biology and Conservation Learning Materials: Utilizing the area as a contextual natural laboratory for students (Rachmawati et al.., 2024; Sansena et al., 2025). This is in line with international evidence that garden- or botanical-park-based educational programs can significantly increase environmental knowledge, change attitudes, and foster visitors' willingness to act in a more environmentally friendly manner (Zelenika et al., 2018).
4. Development of edu-tourism packages that involve residents as resource persons or guides to demonstrate the local wisdom of plant utilization.

These strategies strengthen the argument that Sodong Edu-Tourism has great potential to be developed not only as a recreational destination, but also as a natural laboratory for contextual learning of biology, conservation, and ethnobotany. The urgency of developing educational tourism as a support for sustainable tourism is also emphasized by Prasetyo et al. (2023), who stated that visits to edu-tourism sites can provide added value both in contextual learning for visitors and in strengthening the local economy's sustainability. This is also demonstrated by a study on agritourism sustainability in the United States, which confirmed that diversifying farm businesses towards agritourism can increase income while encouraging more sustainable land management practices (Barbieri, 2013). These strategies are in line with the principles of environmental, social, and economic sustainability that are the main characteristics of sustainable edu-tourism

CONCLUSION

Based on the results of the inventory and analysis conducted, this study concludes three main findings:

1. Flora Diversity: A total of 27 flora species belonging to 17 families were successfully inventoried in the Sodong Edu-Tourism area, dominated by the families Cucurbitaceae (14.8%), Solanaceae (11.1%), and Myrtaceae (11.1%), covering a complete variation of habitus from creeping herbs, shrubs, to tall-canopy trees.
2. Utilization Patterns and Ecological Roles: All flora species are utilized by the community as a food source, with 9 species serving a dual function as traditional medicine, and some possessing non-food local wisdom (handicrafts and natural sanitation tools). Ecologically, the flora is proven both empirically and through literature to function as a pollinator attractor, microclimate shade provider, ground cover, and fauna feed provider.
3. Edu-Tourism Development Potential: The floral diversity and local wisdom of Sodong Village are potential capital that can be developed into a sustainable botanical edu-tourism destination through QR code digitalization, location mapping, integration with biology learning, and community-based edu-tourism packages

SUGGESTIONS

Two main recommendations based on this research are:

1. Creating information boards regarding the mapping of the edu-tourism location, especially the location points of the plants.
2. Developing a flora information interpretation system through the installation of QR-Code boards for each plant species at the edu-tourism site to facilitate access to information for visitors

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