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Article

The Diversity of Sound Realizations of the Wakatobi Language in Southeast Sulawesi, Indonesia

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A B S T R A C T

The sounds of the Wakatobi language are still a topic of discussion among language observers and researchers. This study aims to investigate the diversity of sound realizations of the Wakatobi Language. The study uses a theory of generative phonology in generative dialectology. The data collection was done through the interview method and recorded using phonetic transcription. This study was conducted at 25 observation points with 50 informants. It was analyzed using apportioned and interlingua-equal methods. The analyzed data were compared with existing references regarding Wakatobi phonology and were validated through methodological triangulation, involving the verification of data accuracy with informants and consultation with a dialectology expert. The novelty of this research lies in its description and analysis of the diversity of sound realizations observed across the geographical distribution of the Wakatobi language speakers, an aspect that has not been fully explored in previous studies. The results shows that the Wakatobi language has 14 vocoids (vowel segmental sounds). Tense vowel sounds [o] and [e] usually occur after contoid [p], [mp], [b], [mb], [ɓ], [β], [ɸ], [ʋ], and [m], while lax vowel sounds [ɔ] and [ɛ] usually existed after all contoids, except bilabial and labiodental sounds. Vowel sound variations in the Wakatobi language are caused by linguistic factors or the language environment. This shows that all variations of vowel sounds are found on every island or observation area in Wakatobi. Besides, the Wakatobi language has several consonant sounds, including implosives [ɓ], [ɗ], [ɠ], and [ʃ], as well as fricatives [β], [ʋ], and [ɸ]. In contrast to vowel variations, a diversity of consonant sounds are found on different islands or observation areas in Wakatobi Regency. This shows that the diversity of consonant sounds is not due to linguistic factors or the word's environment. The results of the study can provide a clear picture of the diversity of sound realizations of Wakatobi, which is still a matter of debate both by the Wakatobi community itself and language observers or researchers. The study can also serve as a reference and consideration for the government in developing local language teaching materials for schools, particularly in Wakatobi Regency. The findings also contribute to the advancement of dialectology, particularly regarding the application of its theories to the analysis of local languages in remote areas. From an academic perspective, the results can be utilized to develop teaching materials for regional languages and serve as a reference for future research.

I. INTRODUCTION

Language is very crucial because it constitutes a tool to know the changes and give descriptions about the activity in the past, or as one of the community signers (Apriyanto, 2020: 45). The function of a language is not doubt (La Ino et al., 2023: 2545). In this case, languages in Southeast Sulawesi, particularly in the islands, have become a potential to be studied. Moreover, there are some languages in Southeast Sulawesi,

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Indonesia, that have not been deeply investigated yet, mainly the sounds of the Wakatobi language (Taembo et.al., 2017: 62335).

Wakatobi language is a regional language belonging to the Austronesian language family, which is specifically spoken in the Wakatobi Islands or Regency, Southeast Sulawesi Province, Indonesia. Wakatobi Island is an enlargement of the Buton Regency that has four small islands. Although those islands are separated by the sea, they use a similar language, Wakatobi. Wakatobi is a language used in the Wakatobi Regency (Tukang Besi Island). The Wakatobi language is sometimes called the Tukang Besi language (Donohue, 1995). Besides, Donohoe (1995:8) tends to use the "Tukang Besi language" in his research since it was known by the people at the time. Further, this language is categorized as a language family of Suai that consists of Wanci, Kaledupa, Tomia, and Binongko dialects (Taalami, 2008: 5). Therefore, the name of Wakatobi is an abbreviation of Wangi-Wangi, Kaledupa, Tomia, and Binongko islands, which constitute four small islands in Wakatobi Island. Nowadays, the name Wakatobi is very popular and well-known, both within and beyond Wakatobi. Therefore, this study uses Wakatobi language terms.

The Wakatobi language plays a vital role in the lives of the Wakatobi people, and its use can be found within the family, community, and workplace (Susiati, 2020). Based on the latest population census data, the number of Wakatobi speakers is estimated at around 119,000, the majority of whom reside within the archipelago (BPS Wakatobi Regency, 2026: 71). This geographical location, consisting of a cluster of separate islands, naturally influences patterns of interaction among residents, which in turn has the potential to create differences or diversity in language use across its distribution areas. One particularly interesting aspect of this diversity is the discovery of distinct phoneme or sound realizations across several islands within Wakatobi Regency. A common example found among the people of Wakatobi is the variation in the pronunciation of the phoneme /β/ across the islands of Wangi-Wangi, Kaledupa, Tomia, and Binongko. On the islands of Wangi-Wangi and Kapota, the phoneme /β/ is pronounced as [β]. This contrasts with the pronunciation on Kaledupa Island, where it is realized as the voiced labiodental fricative [ʋ], whereas on the islands of Tomia and Binongko, it is pronounced as the voiceless bilabial fricative [ɸ]. Similarly, differences in consonant pronunciation or variations in consonants are observed among Wakatobi communities across the different islands.

Differences in phoneme realization within the Wakatobi language have led to divergent views among the community regarding which phonemes or sounds should be used—particularly for regional language teaching materials in schools. Furthermore, this has fostered the perception that other variations are incorrect. This phenomenon warrants a thorough dialectological study to examine in detail the existence and diversity arising from the realization of sounds in the Wakatobi language. Theoretically, the study reinforces the view within dialectology that language variation is systematic, rather than merely a random difference in the way people speak. Therefore, this article describes and analyzes this phenomenon to provide a more comprehensive understanding of the diversity of sound realizations in the Wakatobi language.

Based on these conditions, one of the interesting things about the Wakatobi language is its discussion of phonology dialectologically. The phonology of the Wakatobi language (The Tukang Besi language) has been written by Donohue (1995). This book explains the general phonemes of the Wakatobi language, and has not yet touched on the realization of sounds or allophones (the vowel and contoid sounds) of the Wakatobi dialects, and minimal pairs of vowels yet. Comprehensive data on the diversity of speech sounds across Wakatobi language dialects—and the supporting evidence found across the Wakatobi islands—are not yet fully available. Taembo et al. (2017) particularly discussed the sound changes of Wakatobi. Nevertheless, the identification of the sounds of Wakatobi was not done. Hamid and Idris (2021) studied isolect language status of Wakatobi language in the Sikka Islands (a dialectological study). However, their study did not discussed the sound of the Wakatobi language. Further, Taembo et al. (2018) investigated a geographical dialect of the Wakatobi language in Southeast Sulawesi. In their study, the aspect of sound, particularly phonetic sounds, was not discussed. Taembo (2023) also investigated lexical variation of the Wakatobi language in a dialectology study. However, the identification of phonological variations of Wakatobi was not done. In principle, the study of language variation or diversity from a

dialectological perspective is both fascinating and valuable. Another study that is quite relevant is Burhanuddin and Mahsun's research. Burhanuddin and Mahsun (2025) investigated the homeland and migration process of South Halmahera Austronesian speakers. Their findings (Burhanuddin & Mahsun, 2025: 42) indicate that geographical differences reflect not only the locations where communities reside but also linguistic groupings—such as the South Halmahera language subgroup—as observed through geographical variation. This aspect is inextricably linked to the phenomenon of language change. Burhanuddin et al. (2019) have further highlighted the existence of such changes in their research on the complexity of phonological change in South Halmahera languages.

Although previous studies have addressed the sound aspects of the Wakatobi language, debates about the sound of the language still frequently arise, both among the Wakatobi community and among researchers. This occurs due to differences in the pronunciation of certain phonemes among Wakatobi residents who inhabit different islands (Wangi-Wangi, Kaledupa, Tomia, and Binongko). This phenomenon has become one of the problems in developing local language teaching materials in Wakatobi Regency.

Based on previous studies, it shows that the absence of a cross-island distributional analysis based on consistently transcribed data. No study has yet mapped in detail the differences in sounds and their distribution boundaries across the language's distribution area. Consequently, a complete picture of the phonological system or the diversity of sound realizations in the Wakatobi dialect has not been optimally revealed. Therefore, research on the diversity of sound realizations in the Wakatobi language from a dialectal perspective is urgently needed.

Ratu (2024: 18) states that dialectology is a field of study examining dialects from the perspectives of regional and social variation; consequently, the study of language variation cannot be separated from the concept of dialect. Language variation has long been studied from both social and regional perspectives; for instance, dialectology maps variation based on regional aspects (Sadigzade, 2025: 9). In dialectological studies, differences in pronunciation or sound realization are one of the main characteristics that form the basis for distinguishing dialects and subdialects (Vintoniak, et al. 2024). Therefore, a community can be identified through its language variations or dialects (Antoni, et al., 2019: 96). Dialects are closely linked to the environment (Islamiyah, 2024). Differences in geographical location lead to variations in the language used (Nwankwegu et al., 2025: 7). Zulkarnaen et al. (2021: 203) note that language variation can be influenced by geographical location. People from different social groups and regions will exhibit differences in their way of speaking (Gustina, et al., 2018: 9). The diversity of sound realizations that emerge is not solely caused by linguistic factors, but is also influenced by geography, history, language contact, and inter-community speech habits. Therefore, this study aims to describe the diversity of sound realizations found in the Wakatobi language and examine the distribution of this diversity across its various speaking regions. This includes the identification and analysis of vowel segmental sounds (vocoids) and consonant segmental sounds (contoids).

The study of language variation plays a crucial role in linguistics (Nerbonne et al., 2011: 66). Likewise, the study of sound realization diversity holds a crucial position in linguistics, particularly dialectology. Language sounds are the most fundamental elements that differentiate meaning and mark the identity of a dialect (Vintoniak, et al. 2024). Understanding sound diversity allows us to trace kinship relationships between speaking regions, explain the factors causing differences, and document the richness of the sound system before possible shifts or loss of speech characteristics due to the influence of other languages. The degree of distance or closeness of language relationships or isolects can be observed from various linguistic levels, one of which is language sounds, phonology (Nadra, et al., 2025: 126). Within dialectology, language variation gives rise to diverse dialects. Dialects are invariably linked to geographical and social factors (Bamigbola and Umar, 2021: 291). Even the slightest differences between dialects can reflect general principles within a language (Hinskens, 2020: 42). Thus, the results of this study are expected to provide a clear picture of the phonological richness of the Wakatobi language and serve as reference material for efforts to preserve and develop this regional language. This study can also serve as the basis for compiling dictionaries,

grammars, and learning materials for Wakatobi language in local language content subjects. This way, schoolchildren will not experience significant difficulties in learning the Wakatobi language, despite its highly varied and distinct sounds.

Because the diversity of sound realizations of the Wakatobi language is reviewed dialectologically, the study uses a theory of generative phonology in generative dialectology. Generative phonology is a theory of the sound structure of language (Al Mamri, 2023: 106). It is used to describe and analyze the sounds of Wakatobi. Generative phonology uses the theoretical framework of transformational generative grammar. This theory is commonly used in generative dialectology. It has deep and surface structures or forms (Azman dan Norfazila, 2025: 691). Jensen (2004: 54) uses different terms, namely underlying representation and phonetic representation. Underlying representation like deep structure with certai rule. Phonetic representation is like surface structure with real realization with certain articulation. Phonetic representation is derived from underlying representation (Kenstowicz and Charles, 1979: 22). The differences in dialects are supposed to be the application of the phonological formula in the deep structure. Thus, the source language is supposed to have a deep form, and its dialects are a surface (integral) form of the deep structure. Sound variations can occur in both consonants and vowels. (Krulikowska, et al., 2020: 178). The application of generative dialectology theory in this research aims to determine which Wakatobi speech sounds qualify as phonemes (or underlying forms) and which qualify as allophones (or surface structures). Furthermore, the diversity of Wakatobi speech sounds can be observed in the effects resulting from the interaction of two distinct phonemes or sounds; a phoneme is pronounced differently when it encounters another phoneme. Generative dialectology theory allows for the formulation of rules governing these formal sound changes when different phonemes interact. Consequently, each sound possesses distinctive features, and the origins of these sound changes can be traced.

Al Hindawi (2018: 15) mentions these two structures as two levels of phonological representation, namely an underlying level (the basic form of the word before any phonological rule has been applied to it) and a surface form (the form of the word that is spoken or written). Yan, et al. (2021: 5) said that the surface form is derived from an underlying representation. The rules in generative phonology make it possible to explain and analyze language systems (Sales, 2022: 265). In addition, in generative phonology, Roca (1994: 42-43) mentions it as two levels of representation, namely the lexical and phonetic levels. The phonetic level constitutes the final stage of phonological derivation (Roca, 1994: 43). This study focused on the phonetic level.

In generative phonology, the principle of sound change is known (Fitriah, et al. 2023: 82; Nafisah, 2017: 70). This shows that sound change does not just happen, but has causes and rules of change. Sounds in language are not memorized, but the result of a system of rules that applies in the speaker's brain. In generative phonology, there are rules for changing base forms into surface forms. These rules explain sound change or language variation, particularly sound variation.

Based on the language variations, the theory is used to investigate the sounds of Wakatobi based on the geographical differences of speakers of the language in the Wakatobi Regency. The principles of generative theory as follows: (1) the smallest unit in the language is a distinctive feature, not phoneme; (2) the sound change is not only caused by the language sound change itself but also the borders of morpheme and lexicon; and (3) the existence of not only certain phonology principle but also sequential phonological process principles (Schane, 1973).

Further, language variations, including phonological variations sometime become one of the areas of sociolinguistic topics. Phonological variations based on the region of speech can also be a subject of study in dialectology. This research tends to be related to dialectological studies because the diversity of sound realizations of the Wakatobi language is generally based on differences in geographical location or differences in the Wakatobi language dialect. Phonological or language sound variations are coded in different symbols. Kawahara (2020: 383) said that the study of the symbols of language sound is very beneficial. Therefore, the study hopes to make a contribution to the knowledge of language sound symbols.

Generative phonology believes in the existence of sound variations of language, like the fact that certain sound of the language changes when

the position of the sound in the word/morpheme changes. Besides, Bros et.al. (2021: 35) conclude the change phenomena in consonant aperture from other languages and dialects. Likewise, Pastika (1990:12) states that all morpheme variants in a different environment can be derived from their source form by using the phonological principle. Studying phonological principles can not be separated from the place and manner of articulation. The differences in articulation allow the sounds in the same or different classes (Mayer, 2020: 92). The phonological principles of generative phonology are used in this study, namely to classify the sounds of language and to analyze phonemes of the language. It means that the procedures of generative phonology work in this study are (1) to identify the sounds of Wakatobi, (2) to classify the sounds of Wakatobi, and (3) to analyze the phonemes of Wakatobi.

Further, the sound of language is mainly divided into two parts, namely the phone and phoneme (Lapoliwa, 1980: 1). The phone is studied in phonetics, while the phoneme is investigated in the phonemic study. Several aspects have an important role in creating language sound, namely air currents, articulators, and articulation points. From those aspects, it will create either segmental sounds (vocoid and contoid) or suprasegmental features (stress, tone, length, and intonation). Since the Wakatobi language features long vowels, this study employs the long-vowel symbol in accordance with IPA conventions—specifically, the triangular colon (ː) in the right of the vowel sound (Finegan, 1992).

Phonological variations can be caused by linguistic factors or factors outside of language, such as geography, age, and level of education (Luthfiyah and Khusnul, 2024). Rahman et al. (2024: 3) state that the key concept of phonological variation encompasses the subtle changes in how sounds (phonemes) are pronounced in different contexts or by different speakers. Sultani and Fawad (2025: 285) state that geographic isolation fosters linguistic divergence, as seen in regional dialects that develop unique phonetic and syntactic characteristics. Likewise, Hetilaniar et al. (2025: 158) investigated Komering dialects of South Sumatra and found that differences in vowel and consonant phonemes were influenced by geographical and socio-cultural factors. Diani and Azwandi (2021: 133) explain that sound variations can occur when one phoneme meets another. Based on this explanation, the diversity of sound realizations in a language can be caused by many factors, such as language environment factors, location or position in a word, differences in the geographical location of speakers, and social factors.

II. METHODS

The research is a type of qualitative descriptive research. Qualitative research focuses on the use of theory to obtain results that occur directly at the research location in the form of events or facts during the research process. Besides, it is field research. This study focuses on the the diversity of sound realizations of the Wakatobi language in Southeast Sulawesi. It is conducted in four islands of Wakatobi Regency, namely Wangi-Wangi, Kaledupa, Tomia, and Binongko islands. Wangi-wangi covers the Observation Centers (OC) of Waha, Maleko, Wandoka, Numana, Matahora, Kapota, and Lia Bahari Indah villages; Kaledupa covers the Observation Centers (OC) of Sombano, Lauluo, Buranga, Lagiwai, Tanjung, Pajam, Horuo, Darawa, and Kasuwari villages; Tomia covers Observation Centers (OC) of Onemay, Patua, Waitii, Kulati, and Bahari villages; and Binongko Observation Centers (OC) of Rukuwa, West Palahidu, Taipabu, and Popaliha villages. The present study collects the data of the Wakatobi language from different islands and different villages in the Wakatobi Regency. The selection of these 25 observation points encompasses all islands, both large and small, within Wakatobi Regency. Furthermore, the choice of specific observation points on any given island was based on information provided by informants regarding the diversity and variation in sound realization at those locations, as well as the distances between them. Consequently, this selection of 25 observation points provides a comprehensive representation of Wakatobi language usage.

The informants for this study consisted of two people at each observation center. Observation centers will hereafter be abbreviated as OC. The use of two informants at each observation point aims to ensure the validity of the data. Data obtained from the first informant will be reconfirmed with the second informant. The informants were indigenous Wakatobi residents who lived in Wakatobi Regency and had never left their village for a long time, were

aged 30-65 years (without age-related cognitive impairment), had normal speech and hearing, and had a good understanding of the Wakatobi language. The total number of informants in this study was 50 people. If discrepancies in data from the two informants at any observation point were found, a member check was conducted through follow-up in-depth interviews to verify the questionable data until the information became saturated and conclusive. Additionally, the research data were compared with the findings of previous studies on the Wakatobi language.

This research data is the sounds of the Wakatobi language, which comes from the results of the interview. The instrument used in this study was a list of questions regarding cultural vocabulary, which was compiled by Lauder (1993:311-368), and then modified based on the characteristics of the study object. The research data analyzed consist of cultural vocabulary items that exhibit phonological variation across observation points.

The data collection was done through interviewing methods (Sudaryanto, 1993:131; Mahsun, 1995: 94-101). The interview was carried out by visiting all of the research locations and conducting the interview through the question lists provided. The question contains a list of vocabulary items (glosses), which need to be translated into Wakatobi, including how to pronounce the vocabulary. Data obtained through this interview method was supplemented by audio recordings and notes utilizing phonetic transcription. The recordings were cross-checked against the notes; in cases where discrepancies or ambiguities arose, the information was verified with the informants. The collected data were then tabulated and analyzed based on the sequences of the objectives of the study.

The data was analyzed synchronically using the comparative method (Sudaryanto, 1993:21-30). Specifically, it was analyzed using apportioned method and followed by the interlingua-equal method. The apportioned method is carried out by first describing the realization of the sound at each observation point. Meanwhile, the interlingua-equal method is carried out by comparing sound realizations among observation points. What is compared in this method is vocabulary (glosses) which shows the differences in sound among observation points. Differences in sound or pronunciation in certain vocabulary are criteria for geographic variance. Specifically, the first step is to identify the phonetically transcribed data. The purpose is to identify and categorize the sounds of the Wakatobi language. These sounds are compared from one observation point to another. At this stage, these sounds are identified and analyzed. The next step is to analyze the Wakatobi phonemes by considering the concepts of phonemics and allophones in generative phonology (changes/variations in sounds according to their environment within a word). Sounds are identified through minimal pairs and the environment of the sounds (Balukh, et al., 2024: 519). Phonemes were identified based on their distribution and their role in distinguishing meaning, whereas allophones were determined based on sound occurrences that do not alter meaning but rather stem from the speakers' geographical location. The analyzed data were compared with existing references regarding Wakatobi phonology. Furthermore, the study's findings were validated through methodological triangulation, involving the verification of data accuracy with informants and consultation with a dialectology expert.

III. RESULTS

The discussion covers (1) the identification and analysis of vowel segmental sound (vocoid) and (2) the identification and analysis of consonant segmental sound (contoid). The two aspects are described below.

Identification and Analysis of Vowel Segmental Sounds (Vocoid)

Based on the analysis of the field data and comparison with previous studies, the Wakatobi language has fourteen vowel sounds (vocoid), which are [i, iː, a, aː, u, uː, o, oː, ɔ, ɔː, e, eː, ɛ, and ɛː]. Examples of those sounds can be seen below:

ɓ*a*ː 'basin' (OC 1-25)
karaja: 'work' (OC 1,2,6,7,17-20-,24); *karaɗa* 'work' (OC 3,4,5)
koᵑka: 'crow' (OC 8-17, 22,23,25); *hɔŋka*: 'crow' (OC 24)
kirɛ: ' (OC 1-25)
uːtɔ 'brain' (OC 7)
mia naraka: 'poor people' (OC 9,14)
olɔ: 'sun' (OC 1,2,6,7,17)
palaɸɔ: 'canopy' (OC 24)
mohɔ: 'sick' (OC 1-7, 23,24)
ɔː^{m}*pu ra*^{m}*bi* 'forefather' (OC 1-7)

rɔ:kau 'vegetale' (OC 1-3,6,7)
mia mohɔ: 'patient' (OC 1-7, 23,24)
kari: 'dry' (OC 1,8,18)
mohi: 'left' (OC 1-25)
mi:na 'ever' (OC 8-25)
atɔ sɛ: (OC 1-7); *hɛromo sɛ*: (OC 9-16); *helo^{m}bo sɛ*: (OC 17-25) 'roof'.

OC is an observation center or village, a place for collecting data. The mark (:) after the vowel sound that has been underlined shows as a long sound. The realization of the long sound on Wakatobi is not a phoneme, but rather phonetics or allophonic only. In communication, the short and long sounds pronounced by the speaker do not disturb or influence the meaning or understanding of utterances. This vowel sound is pronounced twice as long as a normal vowel sound. This is a distinctive characteristic of certain Wakatobi communities living on different islands or in different regions, as they maintain a specific tempo when articulating vowels. So, it creates the long vowel sound.

Long and short sounds do not create different meanings as proved in the minimal pairs below.

1) [i] and [i:] *ijɔ*: OC 2,4,7-16,18-25 'green'
i:jɔ: OC 1,17 'green'
idɔ : OC 1-5,7 'live'
i:dɔ: OC 6 'live'
2) [u] and [u:] *utɔ* :OC 4,5,8,12,13,18,19,21 `brain`
u:tɔ: OC 7,17 `brain`
uβɛ: OC 2-4,7 'water'
u:βɛ: OC 1,5,6 'water'
3) [ɛ] and [ɛ:] *atɔ sɛ* :OC 8 'roof'
atɔ sɛ::OC1-7 'roof'
4) [e] and [e:] *sɔpo sume* : OC 2,4-7 'wall'
sɔpo sume: : OC 1,3 'wall'
5) [ɔ] and [ɔ:] ɔta : OC 1,3,6,9-,11,14-16,20,22-24 'brain'
ɔ:*ta* : OC 2 'brain'
6) [o] and [o:] mor*ɛ* : OC 2-7,12,13,15,17-25 'cough'
mo:rɛ : OC 1 'cough'
7) [a] and [a:] *aŋa*: OC 23,24 'fish gills'
a:ŋa: OC 1,3-5,7-22,25 'fish gills'

All long vowel realizations are only variants or allophones of their short vocoid sounds. Besides, phoneme /ɔ/ can be realized as [o] and [ɔ]. The data shows that phoneme /ɔ/ is more common than variant [o]. This means that the phoneme /ɔ/ occurs more frequently and has a wider distribution than the phoneme /o/; conversely, the realization of the sound /o/ is not as unrestricted as that of the sound /ɔ/. Likewise, phoneme/ɛ/ can be realized as [e] and [ɛ]. The data shows that phoneme /ɛ/ is more common than variant [e]. This means that the phoneme /ɛ/ occurs more frequently and has a wider distribution than the phoneme /e/. In contrast, the realization of the sound /e/ is not as unrestricted as that of the sound /ɛ/.

In addition, the vowel sound [e] in the Wakatobi language can be realized in both the close-mid sound [e] and the open-mid [ɛ]. Close-mid sound [e] usually existed after contoid [p], [mp], [b], [mb], [ɓ], [β], [ɸ], [ʋ], and [m], while open-mid sounds [ɛ] usually existed after all contoids, except bilabial and labiodental sounds. It means that close-mid sounds [e] usually exist after bilabial and labiodental consonants and in the final position. Therefore, the relationship of sounds [e] and [ɛ] is phonetic, not as different phonemes. The realization of two sounds can be seen in the examples in the table below.

Table 1. Tense Vowel Sound (e) and Lax Vowel Sound (ɛ)

No	Tense Vowel Sound (e)	Lax Vowel Sound (ɛ)
1	*dilɛpe* 'side'	*kɛ^{n}ta* `fish'
2	*kape* 'wing'	*kaɛ* `cloth`
3	*peku* 'hit'	ɛ:*la* `tongue'
4	*lɛ^{m}pe* 'cake which is made from corn'	*atɔ sɛ*:'roof'
5	*tu^{m}pe* 'oldest brother'	*ranɛɔ* 'in this morning'
6	*cobea* 'mortar'	*lɛlɛia*'invitation'
7	*^{m}beadɔ* 'not yet'	ɓolɔsiɛ 'change'
8	ʋe^{m}be: `goat`	*matɛa* `die`
9	ɓe*lɛ* 'oblique'	*hɛsuβui* 'take a bath'
10	βɛ^{ŋ}*ka* 'cut'	*hɛloa* 'cook'
11	ɓeŋki 'swollen'	*pajɛrɛʔɛ* 'chase'
12	*uβe* 'rattan'	ɓaʔɛ 'fruit'
13	ɸe^{m}be 'goat`	*asɛ* 'chin'
14	*mena* `hot`	*matɛ* `die`
15	*me^{n}titai* 'diarhea'	*laŋɛ* 'tomorrow'

Likewise, the vowel sound [o] in the Wakatobi language can be realized in both the close-mid sound [o] and the open-mid sound [ɔ]. Close-mid vowel sounds [o] usually existed after contoid [p], [mp], [b], [mb], [ɓ], [β], [ɸ], [ʋ], and [m], while open-mid sounds [ɔ] usually existed after all contoids, except bilabial and labiodental sounds. It means that close-mid vowel sounds [o] usually exist after bilabial and labiodental consonants and in the final position. Therefore, the relationship of sounds [o] and [ɔ] is phonetic, not as different phonemes. The realization of two sounds can be seen in the following examples.

Table 2. Close-Mid Vowel Sound (o) and Open-Mid Vowel Sound (ɔ)

No	Close-Mid Vowel Sound (o)	Open-Mid Vowel Sound (ɔ)
1	*sapo̲* 'house'	*kadɔ̲la kɔ̲*: 'patridge'
2	*kɔᵐpo̲* 'stomach'	*ɔ̲lɔ̲*: 'sun'
3	*boᵑku* `crooked`	*mohɔ̲*: 'sick'
4	*βo̲ᵐbo̲* 'ceiling'	*ɔ̲lɔ̲:*'sun'
5	*ɓo̲ᵑkɔ* `tie'	*sataʔɔ̲* 'one year.'
6	*ʋo̲ᵐbo̲* 'ceiling'	*rɔ̲ʔɔ̲* 'leaf'
7	*mo̲rɛ* `cough `	*nɔ̲ʔɔ̲* 'six'
8	*ɸo̲ᵐbo̲* 'ceiling'	*ɖaʔɔ̲* 'bad'

The illustration above shows that the diversity of sound realizations of vowel sounds (vocoids) of Wakatobi are varied, mainly in the close-mid vowel sounds [o] and [e] and the open-mid vowel sounds [ɛ] and [ɔ]. In this case, the realization of those close-mid and open-mid vowel sounds does not depend on their position (open or closed syllable position, as in the Indonesian language), but it depends on the consonants that precede them.

Identification and Analysis of Consonant Segmental Sounds (Contoid)

Based on data analysis results collected in the field and compared to previous studies, the Wakatobi language has 34 consonant sounds, which are [b], [ɓ], [p], [d], [ɗ], [t], [g], [ɠ], [k], [j], [ŋ], [ñ], [m], [n], [s], [h], [l], [r], [β], [ʋ], [ɸ], [ʃ], [c] [y], [mb], [mp], [nd], [nt], [ns], [ŋg], [nc], [nj], [ŋk], [ʔ], and [y]. The results of this study do not indicate variation across all consonants; rather, only a few exhibit variation. This implies that the geographical distribution of speakers accounts for diversity in the realization of only a limited number of consonants. Nevertheless, this article discusses all consonants—not only to provide an overview of the phonemes or consonantal sounds of the Wakatobi language but also to describe and analyze which specific sounds undergo variation. Consequently, a detailed analysis of consonantal variation in Wakatobi is conducted solely for those consonants that exhibit such variation.

The classification of consonant segmental sounds in the Wakatobi language, based on place of articulation, manner of articulation, the relationship between active and passive articulators, and vibration, is shown in Table 3 below.

The phoneme /w/ is not found in the Wakatobi language. Wakatobinessee or Wakatobi ethnic is very difficult to pronounce [w]. Even, they find

Table 3. Consonant Segmental Sound of the Wakatobi Language

Manner of Articulation/ Place of Articulation	Bil	Lab-Den	Api- Al	Med-Pal	Dor-Vel	Pha	Glo
Plosive:							
Vs	[p]		[t]	[c]	[k]		[ʔ]
V	[b]		[d]	[j]	[g]		
Implosive:							
Vs							
V	[ɓ]		[ɗ]	[ʃ]	[ĝ]		
Prenasalized stops:							
Vs	[ᵐp]		[ⁿt]	[ⁿc]	[ᵑk]		
V	[ᵐb]		[ⁿd]	[ⁿj]	[ᵑg]		
Prenasalized Fricative Vs			[ⁿs]				
Fricative:							
Vs	[ɸ]	[f]	[s]			[h]	
V	[β]	[ʋ]					
Nasal V	[m]		[n]	[ñ]	[ŋ]		
Lateral V			[l]				
Trill V			[r]				
Semivowel V				[y]			

Remarks:

Vs	: Voiceless	Med-Pal	: Mediopalatal
V	: Voiced	Dor-Vel	: Dorsovelar
Bil	: Bilabial	Pha	: Pharyngeal
Lab-Den	: Labiodental	Glo	: Glottal
Api-Al	: Apicoalveolar		

it difficult to pronounce the phone [w] in their national language, the Indonesian language. This is evidenced by interview results, and the /w/ sound was not found in their communication, except among those who had learned the pronunciation of the /w/ phoneme in Indonesian. Besides, if it is based on the symmetrical aspect in generative phonology, it may undergo fricatization, contoid [w] changes to fricative contoid [β] because both sounds have high similarity in pronunciation. It is supported by other languages that have a close relationship to Wakatobi, like mawa (Muna and Wolio languages), maβa (Wakatobi) for gloss 'flow'; wawo (Muna and Wolio languages), βaβo (Wakatobi) for gloss 'above'; and kawea (Muna language), kaβea (Wakatobi) for gloss 'wind'. Muna, Wolio, and Wakatobi are languages that are closely related. Wakatobi has a glottal sound [ʔ], which appears commonly between two identical vowels, as in the examples below.

rɔʔɔ: OC 1-25 'leaf.'

tuʔu: OC 1-25 'knee.'

nɔʔɔ : OC 1,2,9,17,18,20-25; *nɔnɔʔɔ*: OC 3-9, 11-16; *akkɛnɔʔɔ*: OC 19 'six'

kaβuʔu: OC 1-7; *kavuʔu*: OC 8-16;*kaɸuʔu*: OC 17-25 'neck'

Based on data, it can be concluded that the first element of consonant sequence sounds is always nasal and followed by a voiced or voiceless plosive, except /ns/, which is followed by a fricative. In other words, all consonant sequence sounds are in a homorganic prenasalized combination in the initial and medial of the word. Therefore, those consonant sequence sounds are phonemic since they are pronounced with one loudness point. This is because Wakatobi is a vowel-based language (vokalist language) that does not feature consonant sounds at the end of words or syllables.

Based on table 3 found 34 consonant sounds (contoid). Of 34 consonant sounds, only 32 are analyzed as consonant phonemes. The other two sounds are only allophones or variants. Fricative contoid [ɸ] and [ʋ] are allophones of fricative phoneme/β/. It can be tested by searching for minimal pairs (Finegan, 1992). The following are minimal pairs to prove close consonant phonemes in Wakatobi language.

1) [p] and [β] *pulu*: OC 1-8; pullu: OC 9-16 'sap'
βulu : OC 1—7 'fur'

2) [d] and [ɗ] *podaga* : OC 3,5-8,10,15-22,24,25 'sell'
poɗaga : OC 4,5,7 'keep

3) [mb] and [ɓ] *ᵐburi* : OC 7-16 'back'
ɓuri : OC 1-25 'write'

4) [b] and [ɓ] *baβa*: OC 1,4-7 'brought'
ɓaβa: OC 1-7 'onion'

5) [g] and [ǧ] *gɔlu* : OC 1-25; 'ball'
ǧolu-ǧolu: OC 25 'cloudy'

6) [c] and [k] *camɓa: OC 13 'whiskers'*
kamba : OC 3,5,10,17-22,25 'flower'

7) [β] and [ɗ] βaβo: OC 2,4,5, 'smoke'
ɗaβo: OC 1-7 'brother in law'

8) [p] and [ᵐp] *tɔpa*: OC 15,16 'lake'
tɔᵐpa: OC 5,6 'throw'

9) [ᵐb] and [ɓ] *ᵐburi* : OC 7-16 'back'
ɓuri : OC 1-25 'write'

10) [ⁿt] and [t] *gɔⁿti*: OC 5 'cut'
gɔti: OC 21,24,25 'channel in house'

11) [ⁿd] and [d] *kiⁿda*: OC 1-6,8-16 'thunder'
kida: OC 5 'seizures'

12) [ᵑk] and [k] *lɛᵑka*: OC 17 'female genetalia'
leka: OC 1-25 'open'

13) [ⁿg] and [g] ɓaᵑga: OC 8,11,14,16 'molars'
ɓaga : OC 1-7,12,14,16 'check'

14) [ⁿs] and [s] *ⁿsala*: OC 4,5 'pavement'
sala: OC 1-25 'wrong'

15) [k] and [ʔ] *lɔka*: OC 1-25 'banana'
lɔʔa: OC 1,2,4-7 'cooked'

16) [ʃ] dan [j] *aʃara* : OC 22-25 'horse'
ajara: OC 1,3,18-20 'teach'

17) [ⁿc] dan [ⁿj] *kaⁿcia*: OC 8-16 'junk'
kaⁿjia: OC 8-16 'telling fortunes by card'

Further, the Wakatobi language has the diversity of consonant realizations and there are some that have different orthographics with their sounds, like implosives [ɓ], [ɗ],[ɠ], and [ʃ]; fricatives [β], [ʋ], and [ɸ]; nasal [ñ]; and plosive [c]. This diversity and orthographic implications can be observed from the differences in sound realization at several observation centers or islands in Wakatobi Regency as in the Table 4.

The relationship of voiced bilabial fricative [β], voiced labiodental fricative [ʋ], and voiceless bilabial fricative [ɸ] is only phonetic. It can be tested by searching for minimal pairs (Finegan, 1992). There is no data on minimal pairs that differ in meaning among those sounds, as in the table below.

Table 4. The Diversity and Orthographic Implication of Consonant Sound Realizations

No	Consonat Sounds	Orthographic	Place and Manner of Articulation	Observation Center or Area
1.	ɓ	bh	voiced bilabial implosive	all areas
2.	ɗ	dh	voiced apicoalveolar implosive	all areas
3.	ɠ	gh	voiced mediopalatal implosive	all areas
4.	ʄ	jh	voiced palatal implosive	Binongko Island
5.	β	w	voiced bilabial fricative	Wangi-Wangi and Kapota Islands
6.	ʋ	w	voiced labiodental fricative	Kaledupa Island
7.	ɸ	w	voiceless bilabial fricative	Tomia and Binongko Islands
8.	c	c	voiceless mediopalatal plosive	Kaledupa Island
9.	ñ	ny	nasal mediopalatal	South Wangi-Wangi, Kaledupa, and Binongko Islands

Table 5 Minimal Pair of β, ʋ, and ɸ Sounds

No	[β]	[ʋ]	[ɸ]	Gloss
1	β*etuɔ* : OC 1-7	ʋ*etuɔ* : OC 8-16	ɸ*etuɔ* : OC 17-25	star
2	*hɛsuβui* : OC 1-7	*hɛsuʋui* : OC 8-16	*hɛsuɸui* : OC 17-25	bath
3	*βɛⁿka* : OC 1-7	ʋɛⁿ*ka* : OC 8-16	ɸɛⁿ*ka* : OC 17-25	splitting
4	*kaβia*: OC 1-7	*kaʋia* : OC 8-16	*kaɸia* : OC 17-25	wedding

Based on Table 4, voiced bilabial fricative [β] is commonly found in Wangi-Wangi and Kapota Islands (OC 1-7); voiced labiodental fricative [ʋ] is found in Kaledupa Island (OC 8-16); and voiceless bilabial fricative [ɸ] is found in Tomia and Binongko Islands (OC 17-25). Fricative consonant sounds [ɸ] and [ʋ] are allophones of the the fricative phoneme /β/. Choosing fricative [β] as the underlying form or phoneme because it exists more frequently and can be found in all subdialects of the Wakatobi language, while the existence of [ɸ] and [ʋ] is very limited and only found in several subdialects of Wakatobi. Besides, the presence of [β], [ɸ], and [ʋ] does not create different meanings. This indicates that the diversity of consonant variations in the Wakatobi language can be observed based on the geographical locations of its speakers.

This is supported by other data, which shows that there are differences in consonant segmental sounds on several Wakatobi islands. For example, the voiceless mid-palatal stop segment /c/ is generally found only on Kaledupa Island, such as camba 'beard' (OC 13), caŋkulu 'hoe' (OC 8-15), and mia cumaca 'disabled people' (OC 13,16); while in other OC's, the alveolar fricative /s/ or the voiced mid-palatal stop /j/ is used. The mid-palatal nasal /ñ/ is found only in South Wangi-Wangi (OC 4,7), Kaledupa (OC 11,15), and Binongko (OC 22,23); while in other OC's, the nasal /n/ is used. Double origin segments or the same double consonant are more often found in the Kaledupa and Tomia Islands, while on Wangi-Wangi and Binongko Islands, the same double consonants are very rarely found. The voiced palatal implosive origin segment /ʃ/ is generally found in the Binongko Island (OC 22-25), while in other areas it is realized with the plosive origin segment /j/ and implosive /ɗ/.

IV. DISCUSSION

The results of this study demonstrate and reinforce the existence of geographical dialects. Differences in speakers' residential locations can lead to linguistic variations, particularly at the phonological level. In the context of Wakatobi, inter-island or inter-regional variations indicate that the language is not uniform but evolves in accordance with the speakers' geographical environment. Factors such as geographical distance, the archipelagic setting, and the intensity of interaction between speaker groups can cause linguistic forms to evolve differently. Geographical variation can serve as evidence of gradual language change. Distinct linguistic forms in specific areas may reflect local innovations, sound changes, or the influence of other languages. Thus, the study of Wakatobi offers insights into the dynamics of language evolution across different regions. Although this study does not explicitly address the historical development of the Wakatobi language,

its findings illustrate the nature of these linguistic changes. This is evident in the diverse realizations of Wakatobi phonemes, which correlate with the geographical distribution of the speakers.

The results of this study indicate a diversity of vowel sounds in the Wakatobi language. This was found in all observation areas. This diversity emerges when it encounters other sounds. Besides, the result shows that the diversity of sound realizations of vowel sounds (vocoids) of Wakatobi are varied, mainly in the tense vowel sounds [o] and [e] and the lax vowel sounds [ɛ] and [ɔ]. In this case, the realization of those tense and lax vowel sounds does not depend on their position (open or closed syllable position, as in the Indonesian language), but it depends on the consonants that precede them. This result is in line with Diani and Azwandi (2021: 133) that sound variations can occur when one phoneme meets another. This is in line with the principle of generative theory that sound variations (allophones) are produced consistently due to differences in the linguistic environment (adapting to the surrounding consonants). This variation also occurs due to adjustments to the place and manner of articulation of the surrounding sounds in a word (Mayer, 2020: 92).

Phoneme /ɔ/ is more common than variant [o]. Therefore, [ɔ] is chosen as the underlying form or phoneme, while [o] is only a variant or allophone of phoneme [ɔ]. Likewise, phoneme /ɛ/ is more common than variant [e]. Therefore, [ɛ] is chosen as the underlying form or phoneme, while [e] is only a variant or allophone of phoneme [e]. The phoneme /ɛ/ occurs more frequently and has a wider distribution than the phoneme /e/. In contrast, the realization of the sound /e/ is not as unrestricted as that of the sound /ɛ/. This is in line with the principle of generative theory that phonetic representation is derived from underlying representation (Kenstowicz and Charles, 1979: 22; Schane, 1973; Pastika, 1990:12).

Further, vowel sound variations in the Wakatobi language are not caused by geographical differences or the region of speech, but by linguistic factors or the language environment. The environment or position of the vowel in a word influences vowel sound variations. This is in line with the principle of generative theory that sound variations (allophones) are produced consistently due to differences in the linguistic environment, adapting to the surrounding consonants (Pastika, 1990:12; Diani and Azwandi, 2021: 133; and Schane, 1973). Besides, the allophone variations of the Wakatobi language are different from other languages in the surrounding area, such as Muna, Wolio, Lasalimu, Kamaru, and Ciacia (Fernandez, et al., 2012).

The diversity of vowel sounds in the Wakatobi language differs from that of consonants. This diversity is not caused by linguistic factors, but by non-linguistic factors, such as geographical differences. Even the realization of some sounds is only phonetic and depends on the islands in which the sounds are used, and it is not because of the environment in the word. This result is in line with research by Luthfiyah and Khusnul (2024: 167) on variations in Javanese phonology caused by geographical aspects, not linguistics environment. This is reinforced with research results by Rahman et al. (2024: 3), phonological variation encompasses the subtle changes in how sounds (phonemes) are pronounced in different contexts or by different speakers. Likewise, Hetilaniar et al. (2025: 158) investigated Komering dialects of South Sumatra and found that differences in vowel and consonant phonemes were influenced by geographical and socio-cultural factors.

In addition, this diversity is not found in most local languages in the Indonesian Archipelago, particularly in the relationships among the voiced bilabial fricative [β], voiced labiodental fricative [ʋ], and voiceless bilabial fricative [ɸ]. These three sounds are only phonetic, that is, the diversity of these three sounds does not create different meanings. Fricative consonant sounds [ɸ] and [ʋ] are allophones of the the fricative phoneme /β/. Choosing fricative [β] as the underlying form or phoneme because it exists more frequently and can be found in all subdialects of the Wakatobi language, while the existence of [ɸ] and [ʋ] is very limited and only found in several subdialects of Wakatobi. This is in line with the principle of generative theory that phonetic representation is derived from underlying representation (Kenstowicz and Charles, 1979: 22; Schane, 1973).

Based on this explanation, variations in Wakatobi consonants generally occur due to geographical differences. Wakatobi is spoken on four large islands: Wangi-Wangi, Kaledupa, Tomia, and Binongko. The Wakatobi speakers on each of

these islands have their own distinctive consonant characteristics, such as [β] is commonly found in Wangi-Wangi, [ʋ] is found in Kaledupa Island; and [ɸ] is found in Tomia and Binongko Islands. This is in line with Sultani and Fawad (2025: 285), who state that geographic isolation fosters linguistic divergence, as seen in regional dialects that develop different phonetic features. Furthermore, these results align with studies on lexical variation indicating the existence of dialect subgroups comprising Wangi-Wangi, Kaledupa, Tomia, and Binongko (Taembo, 2023).

This explanation shows that the diversity of sound realizations of the Wakatobi language sounds is not only due to linguistic factors but also due to non-linguistic factors, such as geographical differences. This is in line with Luthfiyah and Khusnul (2024) that honological variations can be caused by linguistic factors or factors outside of language. Variations in vowel sounds of the Wakatobi language are caused by linguistic factors, while variations in consonants are caused by geographical factors. Linguistic factors that give rise to different realizations of vowel sounds are generally influenced by the surrounding sounds. The diversity of consonant realizations can be observed from the habits of people at different observation center or area in pronouncing these sounds.

Practically, the implications of this research can inform policies for developing local Wakatobi language teaching materials in schools. Wakatobi regional language materials can consider the selection of standard phonemes or those that serve as the base form for other variations. For example, the vowel [o] is preferred over [ɔ], the vowel [ɛ] than [e], and the consonant [β] than [ʋ] and [ɸ]. Based on Wakatobi pronunciation, the consonant [β] is very similar to the Indonesian consonant [w]. In other words, the consonant [w] is closer to [β] than to [ʋ] and [ɸ]. However, this requires community consultation, functional testing, literacy considerations, and an explicit orthographic framework. This means that a participatory orthographic study is essential.

Empirically, the results of this study inform previous research that the greater the geographical distance between dialects within a language, the greater the differences. Sound differences are generally found in the use of Wakatobi on different islands. This research was conducted at only 25 observation points/villages, involving two informants at each observation point. The Wakatobi language is spoken in more than 25 villages, some of which are located on small islands not yet covered by this study. Thus, the findings are not intended for generalization. This study also only included Muna and Wolio as comparisons in the sound analysis. The inclusion of other closely related languages, such as regional languages on Buton Island, is necessary.

Future research could involve more observation points to analyze the sound of Wakatobi. Furthermore, future researchers could incorporate extralinguistic aspects, such as ecolinguistic or ethnolinguistic studies, to examine the factors of sound variation in Wakatobi. Historical aspects are also crucial for explaining the basic or original forms of Wakatobi sounds. Future researchers can also examine the influence of other languages or language contact that gave rise to the diversity of sounds in the Wakatobi language.

V. CONCLUSIONS

Based on the results of this study, the following conclusions can be drawn. Differences in phoneme realization are influenced not only by the position of the sound within a word but also by the speaker's geographical factor. The close-mid vowel sounds [o] and [e] usually existed after contoid [p], [mp], [b], [mb], [ɓ], [β], [ɸ], [ʋ], dan [m], while the open-mid vowel sounds [ɔ] and [ɛ] usually exist after all contoids, except bilabial and labiodental sounds. Voiced bilabial fricative [β] is commonly found in Wangi-Wangi and Kapota Islands; voiced labiodental fricative [ʋ] is found in Kaledupa Island; and voiceless bilabial fricative [ɸ] is found in Tomia and Binongko Islands. In contrast to vowel variations, these consonant variations of the Wakatobi language are caused by geographical differences in Wakatobi Regency, not linguistic factors or the word's environment.

Theoretically, this research reinforces the view within dialectology that language variation is systematic rather than merely a random difference in how people speak. Furthermore, the study clarifies the relationship between phonemes and allophones and strengthens the dialectological perspective regarding the existence of distinguishing features characterizing dialects or sub-dialects within a language. Although it

does not provide a comprehensive analysis of sound change, the study's findings support theories of sound change and contribute to the study of Austronesian languages. The Wakatobi language exists within the linguistically rich environment of Sulawesi and Eastern Indonesia and is classified as an Austronesian language; its phonological data can be used for comparative analysis with other Austronesian languages. Regarding methodological implications, research on dialectological language variation must account for geographical differences among speakers, phonetic transcription, and the distinction between phonemic and phonetic sounds. This approach enhances the validity of the research findings in explaining the relationship between phonemic variation and the geographical location of speakers.

The implications of this research can inform policies for developing local Wakatobi language teaching materials in schools. It can serve as a reference and basis for creating standard sounds and phonemes, as well as alphabet symbols, for local languages in Southeast Sulawesi. This research was conducted at only 25 observation points/villages, involving two informants at each observation point. The Wakatobi language is spoken in more than 25 villages, some of which are located on small islands not yet covered by this study. Thus, the findings are not intended for generalization. Future research could involve more observation points, incorporate extralinguistic aspects, such as ecolinguistic or ethnolinguistic studies, and incorporate historical aspects to explain the basic or original forms of Wakatobi language sounds and the factors that contribute to their variation. This study focused on one of the remote local languages in Southeast Sulawesi. Therefore, the writer also recommends or suggests that further researchers analyze the relevant data of other remote local languages in Southeast Sulawesi to maintain and enrich the varied sounds and phonemes of those local languages.

ETHICS STATEMENT

The relevant informed consent was obtained from all informants. Each informant was informed about the purpose of the study, the confidentiality of their responses, and the voluntariness of their participation. The informant provided verbal consent. This study does not require formal approval because it involves no confidential, personal, or sensitive data, and there is no risk associated with the dissemination of the research data.

CREDIT AUTHOR STATEMENT

Maulid Taembo was responsible for conceptualizing the research, conducting the research, writing the original draft, and arranging the formal analysis.

Sri Rahayu was responsible for data tabulation, validation, and review.

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DECLARATION OF COMPETING INTERESTS

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix: Observation Center of Data Collection

Nu. OC	Observation Center (OC)/Villages	District	Island
1.	Waha	Wangi-Wangi	Wangi-Wangi
2.	Maleko	Wangi-Wangi	Wangi-Wangi
3.	Wandoka	Wangi-Wangi	Wangi-Wangi
4.	Numana	South Wangi-Wangi	Wangi-Wangi
5.	Matahora	South Wangi-Wangi	Wangi-Wangi
6.	Kapota	South Wangi-Wangi	Kapota
7.	Lia Bahari Indah	South Wangi-Wangi	Wangi-Wangi
8.	Sombano	Kaledupa	Kaledupa
9.	Lauluo	Kaledupa	Kaledupa
10.	Buranga	Kaledupa	Kaledupa
11.	Lagiwai	Kaledupa	Kaledupa
12	Tanjung	South Kaledupa	Kaledupa
13	Pajam	South Kaledupa	Kaledupa
14	Horuo	Kaledupa	Kaledupa
15.	Darawa	South Kaledupa	Kaledupa
16.	Kasuwari	South Kaledupa	Kaledupa
17.	Onemay	Tomia	Tomia
18.	Patua	Tomia	Tomia
19.	Waitii	Tomia	Tomia
20.	Kulati	East Tomia	Tomia
21.	Bahari	East Tomia	Tomia
22.	Rukuwa	Binongko	Binongko
23.	West Palahidu	Binongko	Binongko
24.	Taepabu	Binongko	Binongko
25.	Popaliha	Togo Binongko	Binongko