

Persepsi Generasi Milenial Kota Waisai terhadap Kawasan Konservasi Perairan Kabupaten Raja Ampat

Millennial Generation Perception of Waisai District about Water Conservation Area the Raja Ampat Region

Anastasia Gustiarini¹

¹Ecotourism Study Program, Faculty of Fisheries and Marine Science, Papua University, Perum
Moko, Bonkawir, Waisai Kota, Raja Ampat, 98482, West Papua, Indonesia
Correspondence: a.gustiarini@unipa.ac.id

ABSTRAK

Kawasan Konservasi Perairan Raja Ampat bertujuan untuk melindungi dan melestarikan keanekaragaman hayati di wilayah ini, yang merupakan bagian dari Laut Kepala Burung Papua. Distrik Waisai, ibukota Raja Ampat Regency, memiliki populasi tertinggi dari semua distrik di Raja Ampat, dengan populasi 23,36 ribu orang pada tahun 2023. Generasi milenial memiliki persentase tertinggi 46% dalam demografi Raja Ampat District, menjadikannya segmen penonton aktif di negara ini. Metode penelitian yang digunakan dalam penelitian ini melibatkan penyebaran kuesioner menggunakan pengambilan sampel acak sederhana (SRS) untuk mengumpulkan data dari generasi milenial di Kota Waisai, India. Ukuran sampel adalah 10.057 orang berusia 20–44 tahun pada tahun 2021. Penelitian ini menggunakan rumus Slovin dengan tingkat kepercayaan 90%. Total sampel adalah 100 responden. Data dianalisis menggunakan pengukuran skala Likert, dengan setiap jawaban diberi skor. Penilaian interpretasi responden terhadap persepsi area konservasi dinilai menggunakan rumus persentase indeks. Kesimpulan dari diskusi ini adalah bahwa persepsi generasi milenial tentang Raja Ampat Water Conservation Area adalah 58,47%, yang jatuh dalam kriteria “fair” atau tidak sepenuhnya dipahami. Hasil penelitian menunjukkan bahwa pengetahuan responden tentang area konservasi, baik undang - undang, peraturan, batas administrasi teritorial, dan program zona, berada pada skor di bawah 60. Informasi di media sosial memiliki dampak nyata pada pengetahuan yang terkait dengan status wilayah konservasi Papua. Skor persepsi terbesar adalah tentang empat zoning pada status konservasi Raja Ampat karena banyak responden mengetahui pembagian zona dari berbagai kampanye dan sosialisasi dari berbagai pihak.

Kata kunci: Persepsi, Generasi Milenial, Kawasan Konservasi Perairan, Raja Ampat

ABSTRACT

The Raja Ampat Water Conservation Area aims to protect and preserve biodiversity in the region, which is part of the Sea of the Head of the Birds of Papua. The Waisai District, the capital of Raja Ampat Regency, has the highest population of all the districts in Raja Ampat, with a population of 23,36 thousand people in 2023. The millennial generation has the highest percentage of 46% in the demographics of Raja Ampat District, making them an active audience segment in the country. The research method used in this study involved disseminating questionnaires using simple random sampling (SRS) to collect data

from the millennial generation in Waisai City, India. The sample size was 10,057 people aged 20–44 in 2021. The study used the Slovin formula with a 90% confidence level. The total sample was 100 responden. The data was analyzed using Likert scale measurements, with each answer given a score. The assessment of respondents' interpretation of the conservation area perception was assessed using the index percentage formula. The conclusion of the discussion is that the Millennial Generation's perception of Raja Ampat Water Conservation Area is 58.47%, which falls within the criteria of “fair” or not fully understood. The results of the study showed that respondents' knowledge of conservation areas, both legislative, regulatory, territorial administrative boundaries, and zoning programs, was at a score below 60. Information on social media had a real impact on knowledge related to the status of the conservation area of Papua. The greatest perception score was about the four zonings on King Ampat's conservation status because many respondents were aware of it from various campaigns and socialization from various viewpoints.

Keywords: *Perception, millennial generation, the water conservation area, Raja Ampat*

Introduction

The Raja Ampat Water Conservation Area is under tutelage based on the Minister of Marine Affairs and Fisheries' Decision No. KEP.32/MEN/2022 concerning the West Waigeo Islands Conservatory Area and its surrounding seas and the King Ampat Islands and the Sea Conservatories in its surroundings in the West Papua Province. The purpose of the initiation of a conservation area is to protect the coral and seagrass ecosystems as the primary conservation target, with the area of conservation reaching 10% of the total area of the ecosystem of corals and seagrass that exists within the conservation zone. (Qodir et al., 2023)

. The Water Conservation Area (KKP) at Raja Ampat was established as an effort to protect and preserve biodiversity to support sustainable use. Raja Ampat Islands which is part of the Sea of the Head of the Birds of Papua, West Papua Province, Indonesia. Total area and number of islands in Raja Ampat 67.379,61 Km², and is also a global priority area for conservation as it has the largest coral reef biodiversity on Earth, (Pemprov Papua Barat, 2018).

Conservation of the sea and sustainable resource management in Raja

Ampat are high priorities for national, provincial, and district governments. The abundance of marine species, including iconic megafaunas such as whale sharks, manta frogs, and turtles, in the waters of King Ampat is recognized as the center of the world's marine biodiversity. The researchers have recorded more than 1,600 species of coral fish and more than 550 coral reef species in the region, (Purwanto, 2021)

Waisai District is the capital of Raja Ampat Regency, with the highest population of all the districts in Raja Ampat (BPS, 2023). In 2023, the population of Waisai City reached 23,36 thousand people, compare it to the district of Ayau, which has only 1.2 thousand people, or to the southern Misool district, which has 3,57 people. Waisai District is an annexation district of the Southern Waigeo District, which was formed in mid-2010. Administratively, the Waisai City District has four districts, namely the Waisai District, Sapordanco District, Bonkawir District, and Warmasen District.

The era of advances in information technology resulted in the fact that the beauty of the Raja Ampat area made this area a tourist destination. The millennials are thought to dominate the world

tourism market. It's because this generation is known to be very intelligent with technology, even in almost all the activities that this generation has to do with technology. (Pratama et al., 2020)

The relative millennial generation is more courageous, does not give up on economic problems, and is happy to do everything on its own. This is in line with technological developments, so that the millennials are more independent and prioritize efficiency. (Parhusip & Arida, 2018). Milenial's are the fastest-growing audience segment in the country. They are active, adventurous, conscious of the concept of connectivity and social awareness, and want to be directly involved in where they are. (Aragão et al., 2020)

The generation of millennials has the highest percentage based on the demographics of Raja Ampat District, which is 46% in 2021. This group is also part of the productive-age population. In addition, millennials have a relatively good mastery of information technology. Therefore, it is not uncommon for millennials to contribute to the progress of a region.

Their understanding of situations that occur in their surroundings is called perception. (Herawati & Sudagung, 2020). The perception and attitude of millennials towards conservation of nature in general as well as their views or aspirations towards environmental education as a means of growing public concern for conservation in particular and nature conservation generally Millennials' perceptions are expected to provide strategic recommendations or tips to promote conservation in the surrounding communities. (Rachim & Gunawan, 2022).

Perception is one of the psychological aspects that is important for human beings in responding to the presence of various aspects and symptoms around them, (Firdiansyah, 2020). According to the Great Dictionary of Indonesian Language (KKBI), perception is the direct response

(acceptance) of something and is the process of a person knowing some things through his senses. Public perception is related to the public's understanding of the Water Conservation Area (KKP), so that in every activity it undertakes, the public will feel owned and responsible for the sustainability of coastal resources in a sustainable manner.

Respondents' perception of conservation in this study is measured by their knowledge and understanding of some conservation-related matters in general, e.g., regulations or laws on conservation area, administrative territory, zoning area, policy and goals, strategy, etc. (Rachim & Gunawan, 2022). The Millennial Generation's perception is interesting to study. Natural resources cannot be preserved and managed properly without first knowing the perceptions and attitudes of people toward the environment. By knowing these perceptions, it will be easier to design an effective strategy. (Adu, 2019).

Research Methods

The research method of disseminating questionnaires with the collection of respondents using simple random sampling (SRS). The research population is the population of the district of Waisai city that entered the millennial generation, that is, the population born in 1980-2000. In other words, the research population was the population who were 20-44 years of age in 2021 with a recorded number of 10,057 people. The sample calculation required for the research was done using the Slovin formula with a degree of confidence of 90%.

$$n = \frac{N}{1 + N(e)^2}$$

N = Sample amount

N = Population amount (Total population of Waisai District is 10.057 people)

e = Tolerable data retrieval error (error/error) of 10%

$$n = \frac{N}{1 + N(e)^2}$$

$$n = \frac{10.057}{1 + 10.057 \cdot (0,1)^2}$$

$$n = \frac{10.057}{101.57}$$

$$n = 99 \rightarrow 100$$

The number of samples determined in this study were 99 people. In order for researchers to produce better and more accurate data, the total sample was increased to 100 people. Location research at Waisai District Raja Ampat Regency Tourism,

Data Analysis

The data used in this study are data obtained through distributing questionnaires that measure the level of answers from very positive to very negative. Furthermore, to measure attitudes, opinions, perceptions, and participation of a person or group of people about social phenomena using a Likert scale measurement. To make it easier to analyze the data, each answer contained in the questionnaire is given a score as follows:

1. Perfectly know is given a score (5)
2. Know good is given a score (4)
3. Know enough is given a score (3)
4. Not really know is given a score (2)
5. Don't know is given a weight (1)

$$T \times P_n$$

$$T = \sum \text{respondents}$$

$$P_n = \text{Likert score number selection}$$

The assessment of the respondent's interpretation of the KKP perception is the result of the value obtained using the Index % formula, (Nugraheni, 2019)

The percentage of answers that have been obtained, calculated using the following formula:

$$\text{Index \%} = \frac{\sum \text{Score}}{Y (100)}$$

$$Y = \text{Highest Likert Score}$$

Interval Criteria:

$$I = \frac{100}{\text{Score (likert)}}$$

$$I = \frac{100}{5} = 20$$

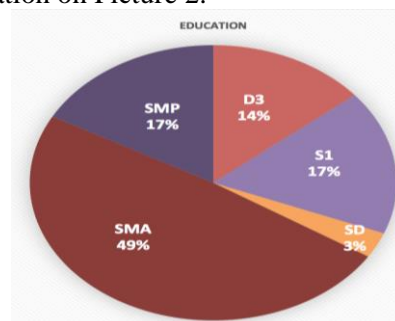
The interval Criteria:

- a. 0% – 20% : poor
- b. 21% – 40% : weak
- c. 41% – 60% : fair
- d. 61% – 80% : good
- e. 81% – 100% : very good

RESULTS AND DISCUSSION

Raja Ampat located between 0045" north latitude and 2015" south latitude and between 129015" and 132000" east latitude. Geographically, Raja Ampat district borders on the north side with the Republic of Palau and the Pacific Ocean; on the south side with Seram North Regency; on the west side with the Sea of Seram and Halmahera; and on the east side with Sorong City and Sorong Regency. Raja Ampat is divided into 24 districts, with the district of the city of Waisai being the most densely populated district.

The social, economic, and cultural aspects that are positively correlated to perception are age, gender, education, primary employment, and extra employment, (Tebay, 2021). The results of the survey of 100 respondents aged 20 to 44 consisted of 48% male and 52% female respondents, and for the level of education on Picture 2.



Picture 2. Level Education Responden From Questionare Data

The type of job respondents, 26% responden are private bussiness, such as having a store business, marketer, etc; 23% are civil servant (PNS and PPPK); housewives 22%; shopkeepers 16%; and unemployed mostly just graduated from school (13%) (Picture 3).



Picture 3. Job Activities Responden From Questionare Data

Table 1. Perception Generation Milenials Score

No	The Question	Score					Σ Score	Index %	Criteria
		5	4	3	2	1			
1	Perception of Raja Ampat Coastal and Island Conservation Areas refers to UU No. 27 of 2007 and replace UU NO. 1 of 2014	23 (115)	14 (56)	20 (60)	22 (44)	21 (21)	296	59,2	Fair
2	Perceptions of Raja Ampat Coastal and Island Conservation Areas—Decree of the Minister of Marine Affairs and Fisheries No. 32 of 2022 concerning the West Waigeo Islands Conservatory Area and its surrounding seas and the King Ampat Islands and the Sea Conservatories in its surroundings in the West Papua Province	13 (65)	16 (64)	27 (81)	23 (46)	21 (21)	277	55,4	Fair
3	Perception of administrative territories,currently consists of two National Conservation Areas, among others: 1. The islands of Waigeo on the west side and the sea around them 2. Raja Ampat's Islands and the surrounding seas Six Regional Conservation Areas (KKDs) include: Area I to the latest Area VI, North Misool	19 (95)	17 (68)	16 (48)	20 (40)	28 (28)	279	55,8	Fair
4	Perceptions of fourth Zoning Raja Ampat's Islands and the surrounding seas	26 (130)	23 (92)	19 (57)	19 (38)	13 (13)	330	66	Good
5	Perceptions of Management and Zoning Plans (RPZ) (Policy, Objectives and Goals, Strategy)	15 (75)	15 (60)	20 (60)	28 (56)	22 (22)	273	54,6	Fair
Result								58,2	Fair

Source: Processing Data Result 2023

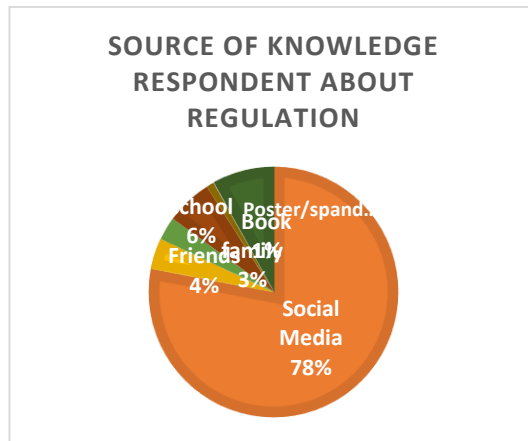
Perception of Law or Regulations

Respondents' perception of area conservation in this study was measured by their knowledge of some conservation-related matters in general, e.g., understanding of regulations or laws on conservation, as presented in questions number one, two, and three. The percentage of perception millennial generation about regulation between 54.6% and 59.2% below 61%. This rate indicates that the level of understanding of respondents falls within the criterion of "Fair" or sufficient knowledge.

The acceptance of conservation information by local populations is heavily dependent on their socio-economic conditions, (Rachim &

Gunawan, 2022). The respondent's knowledge influenced by education, Based on the results of the research, the average respondent is a graduate of secondary and tertiary education. High school graduates have relatively low correlation coefficients between cognitive and psychomotor aspects, cognition and affection, as well as psychomotor and affective aspects, (Sopyan & Wibowo, 2006). The education level that belongs to the lower level, people respond negatively because of the limitations of understanding information, whereas in the higher-educated society, people are more aware of the environmental issues that occur.

The education have an important role, because schools become an important hub in creating awareness of nature conservation as well as an effort to understand the conservation of nature for children from an early age, (Rachim & Gunawan, 2022).



Picture 4. Respondent Source Knowledge. Source: Data 2023

Respondents had a background in the acquisition of knowledge about diverse nature conservation. This knowledge of conservation varies from the knowledge of rare plants and animals to the need to protect and preserve the environment. Respondents who first acquired knowledge of law and regulation from social media had the largest proportion, followed by those who obtained it from spanduk or poster, school, family and friend. Some of the respondents were first acquainted with the law and regulation of Raja Ampat Island from facebook or whatsapp group. festival/exhibition promotion in social media, posters, brochures, and spanduk also play a role in introducing the status of Raja Ampat islands.

Reaction of the respondent of lw and regulation knowledge because they have not been fully informed, (Herawati & Sudagung, 2020). The ease of information networks, makes people more open to accessing the latest information, thus influencing their views and perceptions of new issues related to

the conservation. The public's assessment of the conservation area relates to the efforts made by the local government in managing the area and its communities.

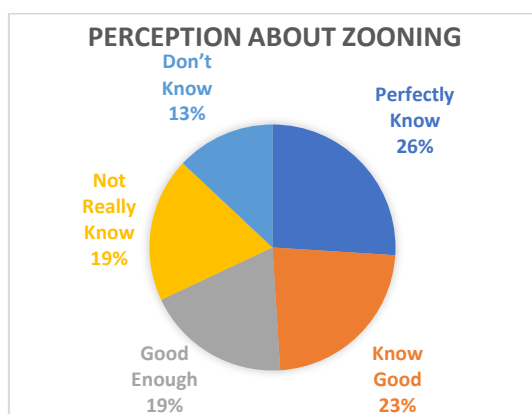
Based on the employment factor, most of the respondents are shopkeepers, jobless, housewives, and private bussniss. Respondents with this occupation tend to be more passive with conservation activities; this can be seen from their responses during the interview. An individual's understanding of an object is a combination of self-absorption and the influence of his everyday environment. Besides these two things, knowledge is also influenced by the more modern conditions of society.

Perception of Zooning

The perception of the zoning of Raja Ampat Coastal and Island Conservation Areas (Zona Inti, Zona Perikan Berkelanjutan, Zona Pemanfaatan, and Zona Lainnya) get the highest score 66. This score showed the criterion perception "Good". Most of the respondents knew there was a zone division in Raja Ampat through the socialization that had been undertaken by the various parties. It is supported by the results of interviews with several respondents. Widayatun (2016), that the disclosure of the core zone and protection (DPL) has been carried out by CI, WWF, and Coremap II using various media, namely leaflets, banners, lectures, as well as direct discussions. Approximately 50% of respondents knew the purpose of zoning and acknowledged that zoning was beneficial to the territory.

Zoning of sea conservation areas is a form of spatial planning technique that involves the establishment of functional boundaries according to potential resources, supporting power, and ecological processes that take place as one ecosystem. Pursuant to the Ministry of Marine Affairs and Fisheries Regulation No. 32/MEN/2022 on the Water Conservation Area Management and Zoning Plan, it is stated that the zoning within the water conservation area consists of core zones, sustainable fishing

zones, buffer zones, and/or other zones. The King Ampat Islands and their surrounding seas are administered in 11 districts in the King Ampat district, namely Area I Management of the Ayau-Asia Islands. There are two districts: Ayau District and Ayau Islands. Area II Management of Teluk Mayalibit consists of the District of Teluk Mayalibit, the District of Tiplol Mayalibit, and the East District of Waigeo. Area III Management of Selat Dampier consists of the South District, Batanta North District, South District, and North Salawati District. For Area IV, Misool Islands, there are 3 districts, namely East Misool District, South Misools District, and West Misooles District. In Area V, Kofiau Islands, there is one (1) district, namely Kofyu District. For Area VI, the Fam Islands, there is one (2) district, namely West Waigeo Islands District, (Pemprov Papua Barat, 2018)



Picture 5. Respondent Zooning Perception (Source: Data 2023)

The respondent might be able to give a positive attitude to the existence of a zoning system in order to be a hope for managing and preserving existing natural resources, especially the coral reef ecosystem. Based on the analysis obtained, almost all respondents know with the zoning system (68%) and the objectives set, but most of the population has not yet fully understood about zoning, how it behaves and what programmes. Some people not really know the conservation waters that they

have not connected and created themselves to this information.

It shows that the community and stakeholders for zoning, especially information about zone, are not optimal, (Hukom et al., 2019). The public and the government of the district of Raja Ampat have given more priority to the determination of the tourist locations that are considered to be tourist zones capable of providing direct economic input to the local people as well as the governor. This condition made homework for existing governance, The success of a conservation area depends on the involvement of the community and the existing governance, (Hukom, 2019).

People really know the conservation information that they have created themselves. 68% of the people know, because of the information they get from the zone system that is applied. It is consistent with research by (Qodir, (2023) that the creation of core zones and shelter zones is very, especially economically. However, when asked about the boundaries of the zone, many respondents were unable to provide adequate and accurate answers. Therefore, activities are needed to raise public awareness of the designated water conservation areas.

Perception of Zooning Programs (Policy, Objectives, Goal, Strategy)

The lowest percentage of the index is on the perception of Zooning Plans (Politics, Objectives, Goals, and Strategies) about 54,6 It shows that the millennial generation is not too enthusiastic about the zooning plans. Respondents are not too enthusiastic about the information and socialization done by the government; respondents are only doing activities to keep their lives alive.



Picture 4. Zooning ff Raja Ampat Islands. Source: conservation.maps.arcgis

Individual perception of the environment is an important factor, as it will continue to be the response that determines the individual's actions, (Adu, 2019). Respondent perceptions of the policy, objective, goal and strategy area are not fully understood, starting from the programme background, the development process, and future plans.

It shows that the information about Raja Ampat zoning program are not optimal, (Hukom, 2019)). The public and the government of the district of Raja Ampat only get more attention to the determination of the tourism program that are considered to be tourist zones capable of providing direct economic input to the local people as well as the governor, (Qodir., 2023)

The results of this study are turns out that not all respondents know about the zoning program. The knowledge of the respondents about zoning is quite worrying, considering Raja Ampat is an area that has mega biodiversity. How unfortunate if its citizens, even the younger generation, are less aware of the potential wealth of this area. More hard work and appropriate strategies are needed to

socialize the conservation of Papua's biodiversity, especially among the younger generation. The younger generation plays an important role because they will inherit nature in the overall context of the natural landscape, resources, governance, and the various impacts of what is happening today, (Rachim & Gunawan, 2022). The younger generation plays an important role in the environment, but there is much evidence that younger generations are less involved in environmental conservation issues, so guidance is needed. (Paisal et al., 2019).

The lack of millennial understanding of the existence of the zoning program (policy, objectives, goal, strategy) will be a special challenge for the government to enhance the socialization of the area so that the public can better understand the conditions of the local territory. The perceptions of different communities are in line with the variety of locations where they live. In this condition, it is expected that the local government will promptly introduce the conservation area to the public so that its management goes smoothly.

CONCLUTION

The conclusion of the discussion is that the Millennial Generation's perception of Raja Ampat Water Conservation Area is 58.47%, which falls within the criteria "Fair" or not fully understood. The results of the study showed that respondents' knowledge of conservation areas, both legislative, regulatory, territorial administrative boundaries, and zoning programs, was at a score below 60. Information on social media had a real impact on knowledge related to the status of the conservation area of Papua. The greatest perception score was about the four zonings on King Ampat's conservation status because many respondents were aware of it from various campaigns and socialization from various viewpoints.

REFERENCES

- Adu, S. J., Salampessy, M. L., & Iskandar, S. (2019). Persepsi masyarakat terhadap konservasi Harimau Sumatera (*Panthera tigris sumatrae*) di Taman Nasional Kerinci Seblat (Studi kasus Desa Pungut Mudik dan Desa Pungut Hilir). *Jurnal Nusa Sylva*, 19(1), 22–29.
- Aragão, D. L., Paulus, I. G. N., Nuraini, K. V. C., White, A., & Gunawan, T. (2020). *Pariwisata Berkelanjutan di Kawasan Konservasi Perairan. Buku Pedoman Praktis untuk Implementasi di Indonesia* (Melva Aritonang & Deborah Lilienfeld Aragão, Eds.). Marine Change untuk Proyek USAID SEA.
- Firdiansyah, A., Johan, Y., & Ta'alidin, Z. (2020). Persepsi dan partisipasi masyarakat dalam pengelolaan kawasan konservasi perairan Pulau Enggano Provinsi Bengkulu. *Naturalis: Jurnal Penelitian Pengelolaan Sumber Daya Alam Dan Lingkungan*, 9(1).
- Herawati, N., & Sudagung, A. D. (2020). Persepsi Masyarakat dan Potensi Public Acceptance Terkait Wacana Pembangunan PLTN di Kabupaten Bengkayang. *Jurnal Pengembangan Energi Nuklir*, 22(2), 111.
<https://doi.org/10.17146/jpen.2020.22.2.6125>
- Hukom, F. D., Yulianda, F. D. G., & Kamal, B. M. M. (2019). Efektivitas zonasi dalam pengelolaan perikanan karang di kawasan konservasi perairan Selat Dampier, Raja Ampat. *Jurnal Kebijakan Sosial Ekonomi Kelautan Dan Perikanan*, 9(2), 93–103.
- Nugraheni, A. I. P., Nugraha, B. S., Yuda, N. P., & Pancawati, N. (2019). Persepsi Generasi Milenial Indonesia Terhadap Pariwisata Yang Berkelanjutan. *Kepariwisata: Jurnal Ilmiah*, 13(1).
- Paisal, Y., Mahsyar, A., & Wardah, W. (2019). Pembimbingan Kader Pemuda Motivator Pelestari Lingkungan Hidup. *JCES (Journal of Character Education Society)*, 2(1), 19–23.
- Parhusip, N. E., & Arida, I. S. (2018). Wisatawan Milenial di Bali (Karakteristik, Motivasi, dan Makna Berwisata). *Jurnal Destinasi Pariwisata*, 6(2), 299–303.
- Pemprov Papua Barat. (2018). *RENCANA PENGELOLAAN DAN ZONASI KAWASAN KONSERVASI PERAIRAN KEPULAUAN RAJA AMPAT TAHUN 2019 - 2038*.
- Pratama, A. M., Sudana, I. P., & Wijaya, N. M. S. (2020). Analisis Pola Perjalanan Dan Aktivitas Wisatawan Milenial Mancanegara Ke Desa Pecatu, Badung. *Jurnal IPTA P-ISSN*, 8(1), 2020.
- Purwanto, D. M. I. R. H. F. Y. M. A. A. W. H. N. M. A. R. M. A. B. E. M. I. M. M. L. H. D. O. B. D. dan E. D. L. R. (2021). *Laporan Status Ekologi Kawasan Konservasi Perairan Selat Dampier, Raja Ampat Tahun 2021*. Universitas Papua, Unit Pelaksana Teknis KKP Raja Ampat, Balai Besar Taman

- Nasional Teluk Cenderawasih,
Conservation International,
Yayasan Konservasi Alam
Nusantara, RARE Indonesia.
Manokwari, Sorong, Raja Ampat,
Bogor Indonesia.
- Qodir, F., Mauludiyah, Maisaroh, D. S.,
Violando, W. A., Johan, O., Idris,
Nurliah, & Waspodo, S. (2023).
Zoning Effectiveness of Marine
Nature Reserve Conservation Areas
(SAP) Raja Ampat Islands Against
Coral Reef Protection. *Jurnal
Biologi Tropis*, 23(1), 420–431.
<https://doi.org/10.29303/jbt.v23i1.4623>
- Rachim, S., & Gunawan, H. (2022).
Persepsi Pengunjung Pameran
HCPSN terhadap Konservasi Alam
dan Strategi Promosi Konservasi di
Masa Pandemi. *Jurnal Pariwisata
Terapan*, 6(1), 1–14.
- Sopyan, A., & Wibowo, S. W. A. (2006).
Potret pembelajaran sains di SMP
dan SMA. *Jurnal Pendidikan Fisika
Indonesia*, 4(2).
- Tebay, S., Kaber, Y., Angin, E. P.,
Manangkalangi, E., Manuputty, A.,
& Rumayomi, M. R. (2021).
Relationship between Perception
and Socio-Economic Characteristics
of Culture Community in the
Development of Marine Ecotourism
in Nusmapi Island. *Jurnal
Sumberdaya Akuatik Indopasifik*,
5(4), 373–386.
- Widayatun, N. F. N. (2016). Peran
masyarakat dalam pelestarian
terumbu karang dan dampaknya
terhadap peningkatan kesejahteraan.
Jurnal Kependudukan Indonesia,
6(2), 1–19.