

## Waste Management Due to The Phenomenon of Overtourism at The Tourist Destination "Ngambang Tirto Kencono" Ponorogo

### Author

Yusuf Adam Hilman<sup>1\*</sup>, Khoirurrosyidin<sup>2</sup>, Insyira Yusdiawan Azhar<sup>3</sup>,  
Seventeena Agustin Veby K.P.<sup>4</sup>

### Correspondence

<sup>1,2,3,4</sup> Universitas Muhammadiyah Ponorogo  
Email: [adam\\_hilman@umpo.ac.id](mailto:adam_hilman@umpo.ac.id)

### Abstract:

The problem we face is the accumulation of waste when tourist visits increase. Until now, there has been no effective way to address this issue, so we took the initiative to manage waste using the 5R concept: reduce, repair, reuse, recover, and recycle. We utilise a plastic waste recycling method to create useful items. The process is carried out in three stages: 1) Conducting a workshop, 2) Producing recycled waste, and 3) Distributing the useful items created during the workshop. Following these activities, the community has gained a better understanding of the importance of utilising waste to create useful items, thereby helping to reduce plastic waste around tourist destinations. We recommend organising a waste festival to enhance the popularity of tourist attractions and raise awareness about waste management.

**Keywords:** Governance; Waste; Overtourism; Ngambang Tirto Kencono;

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### Introduction

After the birth of village law number 6 of 2014 concerning village government, in its implementation, these conditions have an impact on the role of the village government which is getting stronger and wider, starting from the authority possessed by the village autonomously, to the management of large village funds is an important thing that is of common concern, moreover the position of the village government becomes very strategic where in practice various development programs and community empowerment can be carried out massively and also relevant according to village needs through policies made (Simanjuntak, E. 2016) (Lambi, M., & Siswani, C. B. 2024) (Moonti, R. M. 2018) (Santoso, L. 2021).

Efforts that have been made by the village government, including: 1). empowering farmer groups and fishermen groups, 2). developing the role of pokdarwis in optimizing their tourism potential, 3). and optimizing the role of bumdes as a professional institution in the economic sector to increase village income in an effort to create prosperity for the community. Related to the development of tourism potential carried out by the village, there are encouraging data where there is an increase in the number of tourist villages, namely in 2019 there are around 7,500 and in 2024 to 27,000 tourist villages (Trisno. Y, 2025) (Ananda, I. 2021) (Aminudin, N., & A. Jamal, S. 2020). This growth brings a positive signal to the development in the economic, social, political, and cultural sectors, so that the village can develop then become one of the

forces in sustaining the existence of the state. the positive impact can increase village income, open up jobs, grow the informal sector (Susyanti, D. W., & Latianingsih, N. 2015) (Fitari, Y., & TYAS, W. P. 2016).

Although tourism conditions were sluggish during the pandemic, so that the turnover and tourism climate in Indonesia decreased (Pratiwi, M. I, 2020) (Santoso, A., Hierdawati, T., & Dani, R. 2023). It was recorded that the number of visits in 2020 was around 4,052,923 and decreased in 2021 by around 1,557,530, as the peak of the COVID-19 pandemic (Kemenparekraf, 2021) (Nasution, T. 2021). so that it takes a long time to get back up, like the original condition, it is crowded again and also has an effect on people's lives, the return of the tourism sector to become a leading sector, as seen from the government's efforts to overcome the post-covid situation, through a free vaccination policy then together with the revocation of PPKM status, this is reinforced by the start of an increase in foreign tourist visits, as seen in Bali Province where in September 2023 it reached 508,350 visits (Mailarangan KF. 2024).

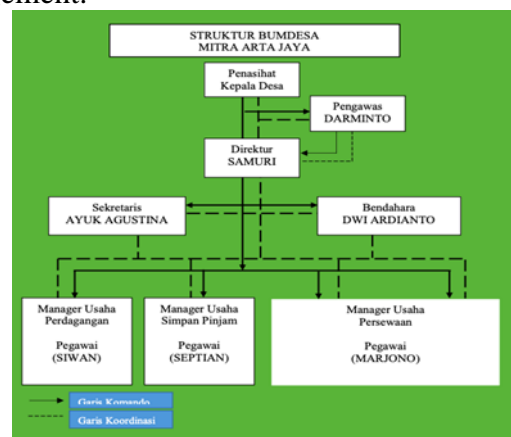
The return of the tourism sector is an important part of the government's serious efforts to increase the number of local and foreign tourist visits, by conducting various intensive promotion models, so that tourists flock to visit, and spend time in tourist destinations that are becoming famous or *viral*, through the help of social media, then tourist destinations are beautifully packaged with various attractive treats for visitors to come to. The increasing number of tourist visits that stop at these tourist destinations, sometimes not well prepared, eventually raises new problems, due to *overtourism* (Purnamawati, I. G. A., & Yuniarta, G. A. 2024) (Ni Putu Wisna Nadya Baby Bellinda, & Putu Sri Arta Jaya Kusuma. 2024), which causes unfulfilled comfort and safety in these tourist destinations. Whereas these 2 (two) things are one of the important things that can increase tourist confidence in carrying out tourism activities, to what extent tourists feel comfortable and safe, then tourism goals will be easily achieved and fulfilled. The Tourism Destination "Ngambang Tirto Kencono" managed by the Village Government through BUMDES Mitra Arta Jaya also experienced a surge in visits or *overtourism* after going viral through promotions carried out on social media, visits immediately became very large, this caused waste problems and the unpreparedness of managers in dealing with these conditions, besides that because the destination is located in a hilly area resulting in damage to several parks around the destination.



Figure 1. Location Plan "Ngambang tirto Kencono"

This destination is a tour of one of the artificial destinations created by utilizing the production forest managed by Perhutani, where the destination is on a hill surrounding the ngebel lake with an altitude of 860 meters above sea level, thus presenting the beauty of the lake view from a height, besides that in the tourist attraction there are beautiful photo spots, which are equipped with cafes and coffee shops in order to enjoy the beauty of the panorama on the hill. This tourist destination *went viral* and then became crowded and visited by people who wanted to travel, this resulted in higher and denser tourist visits. This condition seems to have not been prepared optimally by the manager, there are several new problems that arise, such as: 1). Institutional strengthening of the manager of the "Ngambang tirta Kencono" tourist attraction. 2). The accumulation of plastic waste left over by visitors, which cannot be handled optimally, only burned does not seem to be a solution, 3). The number of MSMEs that do not have a place or stand to market their products, so they need to be helped to make the packaging more beautiful and attractive, 4). The need to make tour packages to make this destination an alternative tour around Ngebel lake 5). Not maximizing social media used for promotion, it is necessary to develop interesting content.

The manager of "Ngambang tirta Kencono" is Bumdes Mitra Arta Jaya which consists of a director, secretary, treasurer, with 3 (three) fields, namely: trade sector, savings and loan sector, rental sector, although there is already a structure that does not seem to specifically function to regulate the operationalization of tourism objects, so there are weaknesses, so far the Bumdes has 3 technical personnel in charge of guarding the counter, maintaining coffee shops and cafes, janitors, so it has not been maximized, in management.



**Figure 2.** Structure of Bumdes Mitra Arta Jaya

The implementation of this service activity can later support the SDG's program related to achieving partnership goals, between universities and the community, so as to create good synergy. In addition, by doing this activity, lecturers can carry out activities or activities outside the campus, students are also involved in these activities which can provide more experience in activities carried out outside the classroom, so that the benefits of the results of lecturer performance for the wider community will be felt as a form of KPI.

This service aims to contribute to increasing the income of people in rural areas, which can indirectly support the realization of *nawacita* which is a government program, namely: helping to reduce poverty and economic equity, later the existence of tourist villages can also encourage the growth of the creative economy, entrepreneurship and even the development of existing infrastructure. This service is in line with the national research master plan (RIRN), namely the social humanities field which aims to improve the welfare of the community, by

optimizing the management of tourist destinations effectively and efficiently. We need to say that if the management of this tourist destination is carried out consistently, it will become a destination that is sustainable, environmentally friendly, and useful for maintaining natural balance.

The problem faced is the governance of tourist destinations "Ngambang Tirto Kencono", where there is ineffectiveness in overcoming waste problems, this is due to the lack of maximum organization, making new problems arise.

1. Socialization and identification of problems of the management of tourist destinations "Ngambang Tirto Kencono"
2. Upgrading the organization of tourism object managers, conducting social media management training, conducting training for packaging local village MSME products, based on the 5R method to create "Zero Waste".
3. Activity assistance and evaluation
4. Sustainability of the training program.

After some activities, it will create several things, namely: 1). Creating an organizational structure that suits the needs, as evidenced by a neater and more effective structure, 2). Creating better and more effective social media management, as evidenced by the return of social media accounts that update in real time, 3). The creation of local products that can support the tourist destination "Ngambang Tirto Kencono", as evidenced by the emergence of environmentally friendly products.

The focus of our research and service in recent years, namely on the management of tourist destinations in the village, in addition to focusing on the institution, we also try to optimize the ability of human resources owned, capacity of tourist destination managers with tourism management skills, by making several activities, which aim to strengthen the governance in disaster management in areastourist optimizing the benefits and impacts of tourist villages for the community, as well as , all it aims for the benefit of the people and also for the realization of welfare for the entire community.

## Method

Departing from the problems faced by the manager of tourist destination "Ngambang Tirto Kencono" we will carry out several activities, in order to increase the capacity of the manager in solving the problems being faced, several stages will be passed, including:

1. Socialization and identification of problems of the manager of the tourist destination "Ngambang Tirto Kencono"
2. Upgrading the organization of tourism object managers, conducting social media management training, conducting training for packaging local village MSME products using the 5R method to create "Zero Waste"
3. Activity assistance and evaluation
4. Sustainability of the training program.

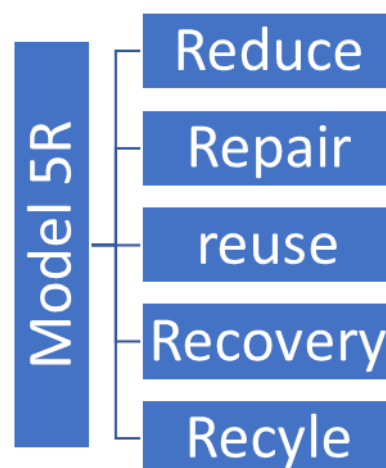
The implementation of the activities to be carried out, will fully involve partners, as participants and also organizers of activities, in addition to other institutions needed to strengthen the capacity of managers, in order to maximize activities so that the problems faced can be resolved. The involvement of students is also expected to be able to assist in carrying out activities technically, so as to provide experience to them to participate in direct community service activities in the

community. Partners in this service program can be productive, but on the other hand it can also be unproductive, on the productive side, by conducting product development and marketing management training, it can increase the MSME products produced so that they can be more active in marketing these products, so as to increase the amount of income, while on the unproductive side, in the form of organizational training, this aims to maximize the main duties and functions of managers, so that the division of tasks becomes more systematic and clear, so that waste problems and also destination development can be resolved.

The follow-up process of training, upgrading, and workshops carried out is that there is a periodic evaluation, after the activity, so that it can be systematically measured the achievements to be obtained, whether it is good enough, less, or even unsuccessful. There are 3 (people) who have their respective roles, the chairman: responsible for the implementation of activities from start to finish, member 1 is responsible for organizing activities, organizing FGDs and activities, member 2 is responsible for organizing administration and finances, for outcomes done together and involving students.

### Results and discussions

The management of tourist destinations that will be developed is to apply the 5R concept in an effort to minimize "Zero Waste" waste by developing: reduce, *repair, reuse, recovery, and recycle*. *Reduce* is the process of using waste paper or plastic that is maximized, the use of these raw materials with two sides in the sheet becomes more efficient. *Repair* is the utilization of waste paper in the form of plastic or paper that has been used on both sides, into a new function. *Reuse* is the processing of waste paper or plastic that cannot be used in the two stages above. *Recovery* is the management of waste in the form of paper or plastic that is already in small pieces or tears or used to contain important data so that it needs to be destroyed or cut into small pieces of pulp. *Recycle* is a technique for recycling waste, either plastic or paper, so that it can function as recycled paper.



**Figure 4.** Modeling pattern of the 5Rs in handling waste at tourist destinations

Development of the 5R model: reduce, repair, reuse, recovery, and recycle. The destination "Ngambang Tirto Kencono" is expected to be able to minimize plastic and paper waste so that it can maintain environmental cleanliness, become more beautiful, and also have

economic value. This modeling uses simple media and relies on materials from waste collected around tourist destinations, the hope is that these wastes can be utilized and produce economic value, so that the waste problem that often occurs can be resolved, waste such as paper and plastic, can be reused into useful materials, so as to reduce the presence of waste from the tourism industry which often experiences overtourism.

The implementation of the workshop was carried out right at the "Ngambang Tirta Kencono" tour, Gondowido Village, Ngebel District, Ponorogo Regency, on Wednesday, July 16, 2025, at 09.00 to completion, this activity involved tourism managers and also a number of MSMEs in the destination area.

The arrangement of the event at the activity, namely: 1). starting with remarks from the head of the service provider, and the head of the BUMDesa managing the tourist destination, 2). Implementation of workshops and training on plastic waste processing, which is filled by the regional student community, which makes aprons made from plastic waste, 3). Submission of waste recycling results into usable materials.



**Figure 5.** Implementation of Workshop and Training on waste management.

The workshop activities produced handicrafts made from plastic waste, which were processed into "apron culture" that could be used by MSME managers, as a form of effort to carry out the development of the 5R model: reduce, repair, reuse, recovery, and recycle in waste management.



**Figure 6.** Use of recycled materials for MSME managers "Apron Culture"

After the workshop and training, we found that some people both from the Bumdes and also the managers of tourist destinations became more aware and understood the importance of utilizing waste into appropriate goods, so that it could

help reduce plastic waste around tourist destinations, this can be seen from several opinions of workshop participants.

1. We are actually aware of the importance of waste, especially after this activity, we are more eager to process plastics in this area, to be transformed into appropriate goods.
2. As MSME players in "Ngambang Tirto Kencono", we gained new skills and insights into the utilization of plastic waste into appropriate goods.
3. This training is very useful for us, it is a spark, and also a driving force for us to develop this area so that it can be better, cleaner, and busier.

## Conclusion

The implementation of community service has opened insights to all parties, on the importance of waste management in tourist destinations, so that it can help solve existing waste problems. In this community service activity, we feel that there are still some weaknesses, namely, the need for more maximum efforts in publication to introduce this tourist destination so that it is better known again. We recommend making an event to introduce "Ngambang Tirto Kencono" through a waste festival, in addition to introducing tourist destinations, this event is expected to be able to educate visitors so that they can utilize waste into appropriate items.

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## References

- Aminudin, N., & A. Jamal, S. (2020). Types of tourism: the travelogue of the greatest traveller. *Journal of Islamic Marketing*, 11(2), 497-506. <https://doi.org/10.1108/JIMA-05-2018-0089>
- Ananda, I. (2021). Pemanfaatan teknologi informasi pada desa wisata di Indonesia: A systematic literature review. *JATISI (Jurnal Teknik Informatika dan Sistem Informasi)*, 8(4), 2291-2300. <https://doi.org/10.35957/jatisi.v8i4.1095>
- Fitari, Y., & TYAS, W. P. (2016). Manfaat Pengembangan Desa Wisata Wonolopo terhadap Kondisi Sosial, Ekonomi dan Lingkungan Masyarakat Lokal (Doctoral dissertation, Universitas Diponegoro).
- Lambi, M., & Siswani, C. B. . (2024). Legal Protection For Consumers In Electronic Transactions. *Eduvest - Journal of Universal Studies*, 4(1), 243-252. <https://doi.org/10.59188/eduvest.v4i1.1018>
- Mailarangan KF. unairnews. 2024. p. 1 Kebangkitan Pariwisata Pasca Pandemi Covid-19.
- Moonti, R. M. (2018). Establishment Of Village Regulations In Realize Autonomy Village. *Substantive Justice International Journal of Law*, 1(2), 129-137. <https://doi.org/10.33096/substantivejustice.v1i2.17>
- Nasution, T. (2021). Kebijakan Pariwisata Indonesia Pada Era Pandemi Covid-19. *Jurnal Analisis Kebijakan*, 5(2), 149-165.
- Ni Putu Wisna Nadya Baby Bellinda, & Putu Sri Arta Jaya Kusuma. (2024). Pengaruh Isu Overtourism Terhadap Sustainable Tourism Yang Ada di Bali. *Akuntansi 45*, 5(2), 348-359. <https://doi.org/10.30640/akuntansi45.v5i2.3358>
- Pratiwi, M. I. (2020). Dampak Covid-19 terhadap perlambatan ekonomi sektor umkm. *Jurnal Ners*, 4(2), 30-39
- Purnamawati, I. G. A., & Yuniarta, G. A. (2024). Maintaining Sustainable and Equitable Ecotourism from the Impacts of Over-tourism on the Welfare of Local Communities. *Jurnal Media Informatika*, 6(1), 573-580. Retrieved from <https://ejournal.sisfokomtek.org/index.php/jumin/article/view/5000>

- Pusat Data dan Sistem Informasi K. Kemenparekraf/Baparekraf. 2021. p. 1 Statistik Kunjungan Wisatawan Mancanegara 2021.
- Santoso, L. (2021). Construction of Village Autonomy Regulation in Achieving People's Welfare: Critical Review Law Number 6 of 2014 on Villages. *Al-Daulah: Jurnal Hukum Dan Perundangan Islam*, 11(1), 47–74. <https://doi.org/10.15642/ad.2021.11.1.47-74>
- Santoso, A., Hierdawati, T., & Dani, R. (2023). Analisis Sektor Pariwisata Sebelum Dan Sesudah Pandemi Covid 19 Dilihat Dari Jumlah Tamu Hotel Di Provinsi Jambi. *Journal of Business, Finance, and Economics (JBFE)*, 4(1), 58–64. <https://doi.org/10.32585/jbfe.v4i1.3779>
- Simanjuntak, E. (2016). Pengujian Perda dan Perdes Pasca Perubahan UU Pemda dan UU Desa. *Jurnal Konstitusi*, 13(3), 639–656. <https://doi.org/10.31078/jk1338>
- Susyanti, D. W., & Latianingsih, N. (2015). Potensi Desa Melalui Pariwisata Pedesaan. *Epigram*, 11(1). <https://doi.org/10.32722/epi.v11i1.666>
- Trisno Yulianto. Kompas. 2025. p. 1 Desa Wisata "Outlook" 2025.