

The case of Lovina, Bali: how dolphin-watching procedures put village hospitality revenue at risk

Rodney Westerlaken^{1*} , I Gede Hendrawan²  & Luh Putu Eswaryanti Kusuma Yuni³

¹Stenden Hotel Management School, NHL Stenden University of Applied Sciences, Leeuwarden, the Netherlands

²Faculty of Marine Affairs and Fisheries, Universitas Udayana, Bali, Indonesia

³Faculty of Mathematics and Natural Sciences, Universitas Udayana, Bali, Indonesia

*Correspondence: rodney.westerlaken@nhlstenden.com

ABSTRACT: This article focuses on the current practice of dolphin watching in Lovina, Bali. The current approach, in which tourists can hire a traditional boat with a captain, has been evaluated. The results show that the anthropogenic disturbance caused by dolphin watching in Lovina is severe. The future of the dolphin-watching industry and the dolphin population, though habituated, is at risk, creating a threat for the tourism and hospitality industry of Lovina. The triple bottom line framework of Cavagnaro and Curiel provided a theoretical framework for recommendations that are focused on a balance between "care for you and me". The "you" in this point of view is the local spinner dolphin (*Stenella longirostris*) population, where the organisational focus on people, leading to social value, a balance between environmental and economic values can be made, leading to a humanitarian, sustainable form of dolphin watching. Recommendations include the need for a sufficient code of conduct for dolphin watching, control of this code of conduct (including sanctions), restriction of the daily fleet and increasing the boatmen's caring capacity. When the number of dolphin-watching boats remains low and an economic incentive can be reached for captains to undertake dolphin watching less frequently, a more sustainable model for the future of tourism and hospitality in Lovina can be shaped. The current low number of tourists due to the COVID-19 pandemic can create a window of opportunity to create change.

KEYWORDS: conservation, spinner dolphin, sustainability, wildlife tourism

Introduction

This article focuses on the dolphin-watching practices in Lovina, in the north of Bali, a fisherman's village attracting visitors since the 1980s to see dolphins in the wild (Figure 1). Dolphin watching is a good alternative to the cruel captive industry, as confirmed by Bejder et al. (2006), who notes that cetacean watching in many cases is seen as a way to save a species from direct exploitation. Therefore, encounter management needs to be at a high level to keep tourists' satisfaction levels high. Since the Dutch colonial era, Bali (Indonesia) has attracted tourists with its unique culture, lush beaches, high-end resorts and welcoming people. The village of Lovina, not offering much more than dolphin watching, became a tourist destination with numerous hotels, restaurants, shops and tour guides benefitting from the dolphin-watching industry, with (as claimed by Mustika, 2011) USD 4.5 million¹ in annual auxiliary direct expenditures.

Based on her research, Mustika et al. (2012) concluded that the area attracts at least 37 000 overnight visitors per annum (~60% of the region's overnights tourists). Van Egmond (2007) and the WTO (2004) both confirm that tourism can be considered as a tool to alleviate poverty in developing countries, which makes the case of Lovina remarkable regarding relieving poverty and

subsequently evaluating sustainable practices for the future to be able to keep alleviating poverty with responsible procedures. Mustika et al. (2012) described the discrepancy between the knowledge of the importance of whale and dolphin watching tourism for the progress of a developing country and the actual little that is known about the distribution of money that flows into the developing local communities that depend on whale and dolphin watching tourism. The scarcity of tourists during the global COVID-19 pandemic compared to recent years pre-COVID-19 does show a possible scenario and impact if the dolphin-watching industry ceased to exist in Lovina, either due to changes in the dolphin population from the current dolphin watching practices or from enforced regulations for dolphin watching currently being developed as a response to the current dolphin watching practices.

The first author of this article focuses on the "people" dimension of sustainability and its roots in altruism, with a specific focus on human and children's rights and animal rights. Prior to this study, he published his PhD research (Westerlaken, 2020) and several articles (Westerlaken, 2021a; 2021b) on orphanage tourism. This article is based on a study as part of Westerlaken's second master's degree in the Faculty of Environmental Studies at Udayana University in Indonesia.



FIGURE 1: Research area (insert shows the island of Bali) (latitude -8.184042 to -8.111815 and longitude 114.912608 to 115.082802), based on 18 173 geotags, created with ArcGIS oceans.

Literature review

Bali's waters have a rich marine environment, specifically for marine mammals such as whales, dolphins, and dugongs (Mustika & Ratha, 2011). One-third of all known cetaceans worldwide and one species of Sirenian reside in Indonesian waters (Wiadnyana et al., 2004). Dolphin watching was first established in the late 1980s in Lovina and has become an important livelihood for the locals (Mustika, 2014; Mustika et al., 2012; Mustika et al., 2013; Mustika et al., 2015; O'Connor et al., 2009). This timeline aligns with global developments of animal use in tourism, as mentioned by Kline (2021). Lovina was the first location in Indonesia to establish cetacean watching (Mustika et al., 2013). The dolphin-watching business expanded rapidly in the 1990s (Hoyt, 2001). However, other examples can now be found in the archipelago, making the need for an Indonesian code of conduct for whale and dolphin watching even more critical. Heenehan et al. (2017) noted that it is likely not the magnitude of the activity, but the focus that matters, meaning that a small number of boatmen showing behaviour of concern could influence the dolphin-watching experience of many.

In 2011, almost 200 dedicated traditional boats (*jukung*) were accessible for tourists to see dolphins in Lovina's waters. The boatmen take tourists around three to four kilometres offshore in the early morning to encounter dolphins (Mustika, 2011; Mustika, 2014; Wiadnyana et al., 2004). Mustika recognised that the boatmen enjoyed an above-average income due to their dolphin-watching activities (Mustika, 2011; Mustika et al., 2012). Mustika (2011) identified that a single school of dolphins has the potential to be surrounded by 83 of these traditional fishing vessels at any one time (Mustika, 2014).

Concern about dolphin watching in Lovina is not new. In 2001, Hoyt claimed that most tourists who go on a dolphin-watching trip are international tourists. Hoyt (2001, p. 118) assessed the dolphin-watching practices in Bali in 2001 as

[c]onsiderable to outstanding potential in North and South Bali, yet the number of boats on the water at Lovina in North Bali and the consistently aggressive

approaches towards the dolphins requires urgent attention and precautionary management, if the future presence of the dolphins is to be ensured. Considerable value could be added to those trips, with more repeat business, by offering naturalist guides and commentary.

These observations by Hoyt are underlined by Mustika et al. (2012, p. 12), who identify the two major concerns of tourists:

1. The excessive number of boats participating in the dolphin trips; and
2. Boatmen behaviour ("behaviours of concern") that tourists perceived as unsustainable.

Mustika et al. (2012) further describe economic sustainability concerns that may threaten the future of whale and dolphin watching in Lovina. These concerns focused on changes in the dolphin population due to the dolphin-watching practices or due to enforced regulations for dolphin watching. In the research by Mustika (2011), 354 tourists of Western and Asian nationalities were questioned about their dolphin-watching experience. The satisfaction of Western tourists revolved around encounter management, the number of dolphins seen and the preferred number of boats. Mustika identified that Asian tourist satisfaction mainly revolved around encounter management. Mustika subsequently confirmed that Western tourists were concerned with what they perceived as mismanagement of the dolphin-watching vessels, which was explained as the tendency of boatmen to drive their boats at a certain speed and to surround the dolphins with a large number of boats. Mustika et al. (2012) conclude that the satisfaction level of Western tourists was higher when their preferred number of surrounding vessels was ten or less. More than 80% of Western tourists preferred a maximum of ten boats in a trip.

Mustika notes that experts on dolphin behaviour are becoming increasingly vocal about the need to regulate whale and dolphin watching (Mustika et al., 2013; Mustika et al., 2015). Kline (2021) describes a shift of perspective from an anthropogenic viewpoint to a bio-centric or animal-centric perspective, advocating for more justice for exploitation and commodification. Kline describes the possibility of resetting procedures due to the

current COVID-19 pandemic and the need to re-evaluate and act, for which this study can give a basis of knowledge. Kline further describes species justice, which illustrates that animals should receive fair treatment by humans.

Regarding animal rights, Donaldson and Kymlicka (2011) provide an essential notion on this related to the Lovina case: animal rights are not regarded as absolute non-intervention, but rather as honouring the positive duties to, in this case, dolphins. Kline promotes humanitarian tourism based on ethics of care, social humanities, prescribed relational responsibility, affective solidarity and humanitarian advocacy. Animals should not be a resource and commodified for profitmaking in humanitarian tourism. The links between wildlife conservation and tourism benefits must be strong, visible and constantly met. Kline describes the need for a code of conduct to monitor justice and avoid exploitation and commodification. Mustika (2011) identified that examination of the boatmen's conduct indicated that the operations in Lovina did not conform to accepted international norms as laid down in much legislations and many codes of conduct worldwide. Mustika (2011, p. xvi) saw opportunities for "the Lovina dolphin watching industry to become the exemplar of community-based tourism in a developing country that is successfully co-managed from different perspectives". Mustika (2011, p. xv) concludes that as a consequence of the economic importance of this industry to the boatmen and the villages, it is important that the boatmen improve their dolphin encounter management to meet the expectations of the highly educated international visitors.

The fact that dolphins are the main attraction for tourists to visit Lovina means that the practice directly affects the villagers' revenue, heavily dependent on tourism and hospitality due to the availability of dolphins, since fishing activities around the reefs and bottom net operations are no longer allowed (Prawiti & Dewi, 2020; Wiadnyana et al., 2004). Mustika et al. (2013) further show that in Mustika's research, on average, the maximum number of tourist vessels per day was 34.5 (SE \pm 6.29; range 4–98 vessels), or 19% of the total tourist fleet capacity.

Because dolphin-watching tourism is lucrative for boatmen and the wage earned is above regional income levels, it is unlikely that the boatmen will leave the industry voluntarily. On the contrary, the high net benefit is likely to attract more people to become a boatman (Mustika, 2011; Mustika et al., 2012).

A restricted daily fleet could benefit the dolphins involved, but should have economic incentives for the boatmen. When asked, boatmen agreed that an average of 13.6 boats (SD \pm 7.6, range 5–30, $n = 9$) was considered comfortable (Mustika, 2011).

Mustika (2011, p. 84) notes that:

The large encounter fleet size, short approach distances and the high incidence of boats showing "behaviours of concern" may contribute to the high levels of travelling of the spinner dolphins off the coast of Lovina and thus are a potential concern.

Mustika notes that she failed to detect a significant correlation between the dolphin-watching boats and the short-term responses of the spinner dolphins. She determines that this might reflect the absence of an effect; however, she also notes that the lack of a significant relationship between anthropogenic disturbance and responses does not warrant an assumption that the animals are not disturbed (Mustika, 2011). Mustika resumes identifying that the spinner dolphin population in Lovina might be habituated, in other words, taught by their mothers to use

the waters of Lovina and not to search for potential replacement sites notwithstanding acoustic, anthropogenic activities. Mustika argues that habituated species might not be the fittest due to adapting and living in one region. They have nowhere else to go or are unaware of alternative spaces. Without another place to go or knowledge of other areas, the population might choose to stay, even if that influences their reproductive rate or survival, therefore threatening their long-term survival.

Theoretical framework

The theoretical framework used for this research, with the objective of offering recommendations toward a more sustainable way of dolphin watching in Lovina, has been the triple-bottom-line framework developed by Cavagnaro and Curiel (2012). This framework divides a sustainable society into three different values, environmental value (the conservation of the local spinner dolphin population), economic value (the income for the boatman offering dolphin watching) and social value (the satisfaction of tourists, the outcome of the balance between environmental and economic value). A sustainable organisation is defined as the goal for the recommendations resulting from this research. Leadership in a sustainable organisation is paramount. When the value for leadership is "care for me", the organisational focus is profit, which leads to economic value only. When the value for leadership is "care for all", the organisational focus is on the planet, which leads to environmental value only, which is not considered sustainable. The Lovina economy is in danger of losing about 5.5 million USD (adjusted inflation) in annual auxiliary direct expenditures. When leadership is focused on a balance between "care for you and me", the organisational focus should be on people, leading to social value, balancing environmental and economic values (Cavagnaro & Curiel, 2012).

Study findings

The primary study on which this article is based focused on anthropogenic disturbance caused by boatmen in the Lovina area. The results of this study can lead to a broader understanding and interpretation of the possible impact on the tourism and hospitality industry. It is essential to understand the bigger picture of the complete study.

For the main study, seven hypotheses were defined:

- H₁: Distance between boat and dolphin is not adhering to a 50 metre standard.
- H₂: Distance between boat and boat is small, leading to escape behaviour.
- H₃: The behaviour of boatmen leads to situations of concern.
- H₄: The behaviour of dolphins deviates from normal behaviour due to dolphin watching.
- H₅: Intensity of sound increases when the number of boats undertaking dolphin watching increases.
- H₆: Frequency of sound increases when the number of boats undertaking dolphin watching increases.
- H₇: The combination of distances between boat and dolphin, boat and boat, boatmen behaviour, dolphin behaviour and the intensity and frequency of sound leads to an unsustainable situation.

Based on the main research, it is concluded that H₁, H₂, H₃ and H₄ are considered proven, H₅ and H₆ to be inconclusive, and H₇ partially proven.

The current pandemic shows a decline in the number of people undertaking dolphin-watching activities compared to pre-pandemic conditions. However, the daily number of boats undertaking dolphin watching is not recorded by any agency or government institution. Between 9 January 2021 and 15 May 2021, the number of boats per day going dolphin watching (mean 15.5, ranging from 0 to 47 vessels, or 8.5% of the tourist fleet capacity as per Mustika, 2011) can be seen in Table 1. For reference, Mustika (2011) identified in her research that, on average, the maximum number of tourist vessels per day was 34.5 (ranging from 4 to 98 vessels), or 19% of the total tourist fleet capacity.

The Tourism Department of Buleleng regency is keeping statistics, published by the Buleleng's *Badan Pusat Statistik* (BPS Buleleng, 2014; BPS Buleleng, 2018), on tourists arrivals (Figure 2). Bali as a province is divided into nine administrative regencies (*kabupaten*), and Lovina is situated in the Buleleng regency. When comparing the numbers of tourists visiting Buleleng regency, one can see that at the time of Mustika's research numbers were in fact smaller than during the pandemic (2007–2009 average domestic tourists = 36.371, average foreign tourists = 58.278, average total = 94.650, compared to 2020–2021 average domestic tourists = 169.226, average foreign tourists = 31.248, average total: 200.654). One can see the effect of closed international borders due to the fight against the spread of COVID-19, leading to fewer foreign arrivals and more intense domestic tourism. This likely has changed the conduct for dolphin watching, as Mustika (2011) identified that Asian tourist satisfaction mainly revolved around encounter management, whereas the satisfaction of Western tourists revolved around encounter management, the number of dolphins seen and the preferred number of boats.

One should note that the regency (*kabupaten*) of Buleleng consists of nine districts (*kecamatan*), where dolphin-watching tourists predominantly stay in *kecamatan* Buleleng and *kecamatan* Banjar, covering the villages of Kaliasem and Kalibukbuk. When evaluating the impact of tourism and hospitality development in the area, only data on the number of star-rated hotels, non-star-rated hotels and *pondok wisata* (private accommodation) (Figure 3) and the number of registered employees (Figure 4) is available. *Pondok wisata* [private accommodation] is a licence often used for privately owned villas available for tourists.

TABLE 1: Dolphin watching boats per day, Lovina 2021, based on 20 days, period 9 January 2021 to 15 May 2022 (within the COVID-19 pandemic)

Date	Total number of boats
01/09/21	3
01/10/21	21
01/11/21	4
01/12/21	4
01/13/21	5
02/22/21	8
02/23/21	0
02/24/21	6
02/26/21	2
03/02/21	6
03/03/21	6
03/11/21	10
03/12/21	14
04/02/21	25
04/03/21	26
04/04/21	33
05/12/21	14
05/13/21	33
05/14/21	47
05/15/21	43
Total	20

Even though data is only available until 2017 (a total of 954 730 tourists coming to the whole Buleleng regency), a clear development of the area of *kecamatan* Buleleng and *kecamatan* Banjar in the tourism and hospitality industry can be seen.

Discussion

The primary study showed that current practices of dolphin watching in Lovina have led to anthropogenic disturbance for the population of spinner dolphins in the area. As Wiadnyana et al. (2004) note, dolphins are the main attraction for tourists visiting Lovina, which creates the situation that the practice directly affects the villagers' revenue, which is heavily dependent and tourism and hospitality due to this availability of dolphins. Therefore the development of tourism and hospitality in the Lovina area should be considered to be under threat. Data shows that over the years 2009 to 2017, the tourism and hospitality

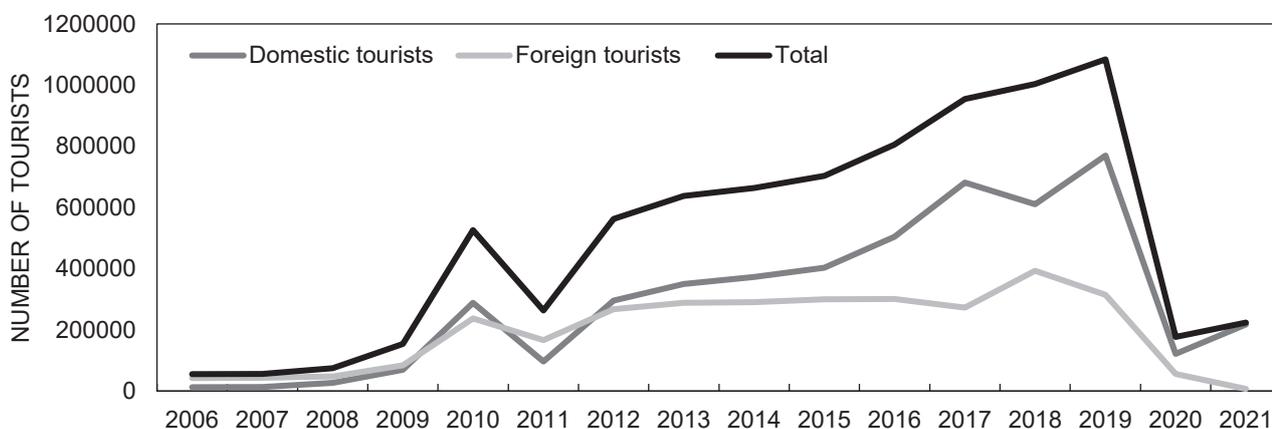


FIGURE 2: Tourist arrivals in Buleleng area, 2007–2021, based on statistics of Dinas Pariwisata *kabupaten* [administrative regency] Buleleng (BPS Buleleng, 2022)

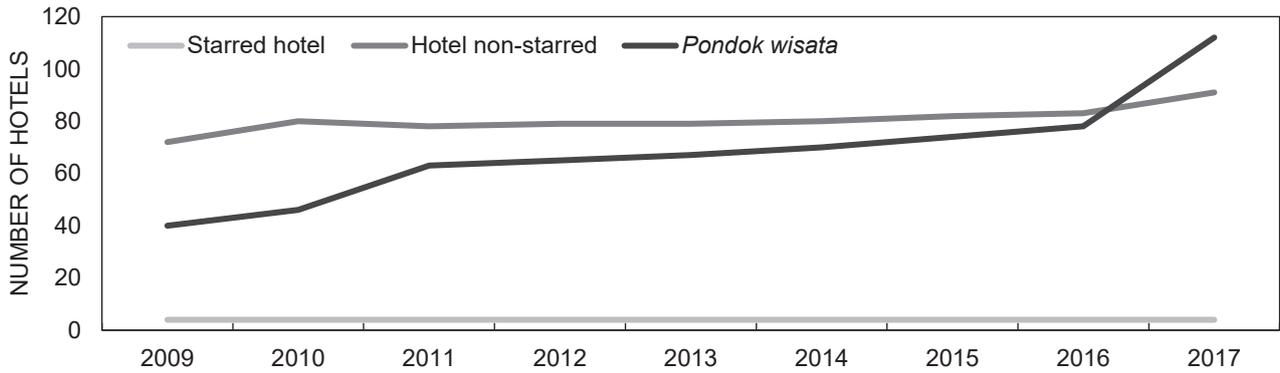


FIGURE 3: Development of starred hotels, non-starred hotels and *pondok wisata*, 2009-2017, Buleleng and Banjar districts

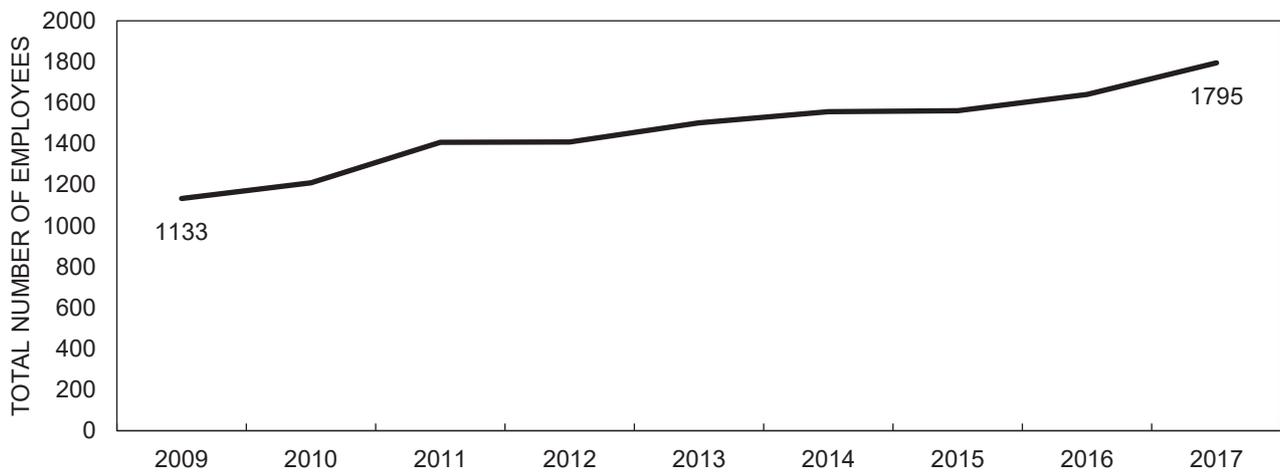


FIGURE 4: Number of employees working at starred hotels, non-starred hotels and *pondok wisata*, 2009-2017, Buleleng and Banjar districts

industry, which is dependent on the availability of dolphins in the area, has developed significantly. This study shows that the dolphin watching influenced tourism, and the hospitality industry in the area has continued to grow after Mustika's research (2011) (0% starred hotels, 16.7% non-starred hotels, 77.8% *pondok wisata*, 27.6% growth in number of employees).

The primary study on which this article is based confirmed and further defined that the conduct of the boatmen indeed leads to anthropogenic disturbance. The study's outcomes showed that the number of dolphin-watching boats during the pandemic was smaller, but anthropogenic disturbance seemed to be more severe than Mustika's conclusions. The results from Mustika cannot be compared directly to the primary study due to different methodologies, though differences in outcomes are significant, indicating an increase in and the severity of the disturbance.

Mustika et al. (2012) identified the possible scenario and impact of the possibility that the dolphin-watching industry ceased to exist in Lovina, either due to changes in the dolphin population due to the current dolphin-watching practices or due to enforced regulations for dolphin watching currently being developed as a response to these practices.

Kline (2021) described the shift of perspective from an anthropogenic viewpoint to a bio-centric or animal-centric

perspective, advocating for more justice in exploitation and commodification. If dolphin watching in Lovina is done in a humanitarian and sustainable way, based on the altruistic spectrum of the triple-bottom-line framework of Cavagnaro and Curiel (2012), dolphin watching should be able to continue in the Lovina area.

Kline described the possibility of resetting procedures due to the current COVID-19 pandemic and the need to re-evaluate and act, for which this study can give a basis. Kline further describes species justice, which illustrates that animals should have fair treatment by humans. There is a lack of data on the impact of the pandemic on the area, but seeing the decline in the number of boats doing dolphin watching in the first half of 2021, the impact must be severe.

Conclusion

This article shows the importance of regulations for dolphin watching in light of economic stability for the tourism and hospitality industry in Lovina. When looking at the triple-bottom-line framework of Cavagnaro and Curiel (2012), one can conclude that when leadership is focused on a balance between "care for you and me" ("you" being the local spinner dolphin (*Stenella longirostris*) population, the organisational focus is on people,

leading to social value, a balance between environmental and economic values is made, leading to a sustainable form of dolphin watching.

It is concluded that the consequences of anthropogenic disturbance caused by dolphin watching in Lovina are severe. The future of the dolphin-watching industry and the dolphin population, though habituated, is at risk. As Heenehan et al. (2017) noted, it is likely not the magnitude of the activity, but the focus that matters. Conceivably, the outcome of this research does show the magnitude, but the focus of the issue is sharp. A clear code of conduct, with socialisation and control, is needed to create a humanitarian, sustainable way for dolphin watching in Lovina.

Recommendations

Based on the main research, and in particular this article, the following recommendations could be made:

- A sufficient code of conduct for dolphin watching in Indonesia, with specific provisions for Lovina, needs to be (re)written and awareness needs to be created among the boatmen;
- When a code of conduct is written and made socially acceptable, the code of conduct needs to be controlled;
- Boatmen behaviour that disturbs needs to be controlled and sanctioned to ensure the most minor disturbances by anthropogenic factors, resulting in the escape behaviour of dolphins;
- Level of care among boatmen needs to be increased, leading to a sustainable model of dolphin watching with the most minor disturbance by anthropogenic factors for the dolphin population, though with a similar revenue to be gained, based on the triple bottom line;
- The daily fleet needs to be restricted; and
- To reach a sufficient level of care, a joint effort to reach a standard price for dolphin watching at a high-end level could ensure that incomes remain stable. However, the number of dolphin-watching boats should remain low and an economic incentive can be reached.

When incorporating these recommendations, a sustainable approach for dolphin watching in Lovina can be realised, leading to no financial loss for the boatmen, a less disturbed population of spinner dolphins and more satisfied tourists.

Note

- 1 USD 4.5 million would be USD 5.5 million in 2022. Mustika's research took place from 2008 to 2009 (<https://www.officialdata.org/us/inflation/2012?amount=4500000>).

ORCID iDs

Rodney Westerlaken — <https://orcid.org/0000-0003-4581-836X>
I Gede Hendrawan — <https://orcid.org/0000-0003-1088-9686>

References

- Bejder, L., Samuels, A., Whitehead, H., Gales, N., Mann, J., Connor, R., Heithaus, M., Watson-Capps, J. Falherty, C., & Krützen, M. (2006). Decline in relative abundance of bottlenose dolphins exposed to long-term disturbance. *Conservation Biology*, 20(6), 1791–1798. <https://doi.org/10.1111/j.1523-1739.2006.00540.x>
- BPS Buleleng. (2014). *Buleleng dalam Angka*. Buleleng Statistical Bureau, Singaraja.
- BPS Buleleng. (2018). *Buleleng dalam Angka*. Buleleng Statistical Bureau, Singaraja.
- BPS Buleleng. (2022). *Buleleng dalam Angka*. Buleleng Statistical Bureau, Singaraja.
- Cavagnaro E. & Curiel, G. H. (2012). *The three levels of sustainability*. Routledge.
- Donaldson, S. & Kymlicka, W. (2011). *Zoopolis: A political theory of animals rights*. Oxford University Press.
- Heenehan, H. L., van Parijs, S. M., Bejder, L., Tyne, J. A., & Johnston, D. W. (2017). Differential effects of human activity on Hawaiian spinner dolphins in their resting bays. *Global Ecology and Conservation*, 10, 60–69. <https://doi.org/10.1016/j.gecco.2017.02.003>
- Hoyt, E. (2001). *Whale watching 2001. World-wide tourism numbers, expenditures, and expanding socioeconomic benefits*. International Fund for Animal Welfare.
- Kline, C. (2021) Socialising animal-based tourism. In Higgins-Desbiolles F, Doering A, & Chew Bigby B. (Eds), *Socialising Tourism* (pp. 195–213). Routledge. <https://doi.org/10.4324/9781003164616-15>
- Mustika, P. L. (2011). Towards sustainable dolphin watching tourism in Lovina, Bali, Indonesia. PhD dissertation, James Cook University, Townsville, Australia.
- Mustika, P. L. (2014). Small MMPAs in South and Southeast: Status update, threats and suggestions for management. Results from a workshop, 17–18 August 2014, Semenyih, Malaysia. In Hoyt E. (Ed.), *Summary of Proceedings of the Third International Conference on Marine Mammal Protected Areas (ICMMPA 3)* (p. 14). 9–11 November, Adelaide, Australia.
- Mustika, P. L., Birtles, A., Welters, R., & Marsh, H. (2012). The economic influence of community-based dolphin watching on a local economy in a developing country: implications for conservation. *Ecological Economics*, 79, 11–20. <https://doi.org/10.1016/j.ecolecon.2012.04.018>
- Mustika, P. L., Birtles, A., Everingham, Y., & Marsh, H. (2013). The human dimension of wildlife tourism in a developing country: Watching spinner dolphins at Lovina, Bali, Indonesia. *Journal of Sustainable Tourism*, 21(2), 229–251. <https://doi.org/10.1080/09669582.2012.692881>
- Mustika, P. L., Birtles, A., Everingham, Y., & Marsh, H. (2015). Evaluating the potential disturbance from dolphin watching in Lovina, north Bali, Indonesia. *Marine Mammal Science*, 31(2), 808–817. <https://doi.org/10.1111/mms.12188>
- Mustika, P. L., & Ratha I. M. J. (2012). Towards the Bali MPA Network, Conservation International. *Bulletin of Biological Assessment*, 64, 131–137.
- O'Connor, S., Campbell, R., Knowles, T. & Cortez, H. (2009). Whale Watching Worldwide: Tourism numbers, expenditures, and economic benefits: A special report from IFAW. *The International Fund for Animal Welfare*. https://www.cms.int/sites/default/files/document/BackgroundPaper_Aus_WhaleWatchingWorldwide_0.pdf
- Prawiti, I. G. A. I., & Dewi, M. H. U. (2020). Analysis of the impact factors on fisherman income in the Lovina beach, Buleleng district. *American Journal of Humanities and Social Science Research*, 4(3), 171–176.
- Van Egmond, T. (Ed.) (2007). *Understanding Western Tourists in Developing Countries*. CABI. <https://doi.org/10.1079/9781845931957.0000>
- Westerlaken, R. (2020). The modification of perception related to submitting children to child welfare institutions in Denpasar city. PhD dissertation, Udayana University, Denpasar, Indonesia
- Westerlaken, R. (2021a). The impact of orphanage tourism on Bali, *Research in Hospitality Management*, 11(2), 71–75, <https://doi.org/10.1080/22243534.2021.1916191>

- Westerlaken, R. (2021b). Menganalisa factor manusia dalam perubahan manajemen bagi anak-anak yang ditempatkan pada Lembaga kesejahteraan sosial anak dan hubungannya dengan sponsor [Analyzing the human factor in change management for children placed in social welfare institutions regarding children and their relationship with sponsors]. *Jurnal Ilmu Sosial dan Ilmu Politik* [Journal of Social and Political Science, 1(2), 126-135.
- Wiadnyana, N., Purnomo, F., Faizah, R., Mustika P. L., Oktaviani, D., & Wahyono, M. M. (2004). *Proceedings of the international symposium on SEASTAR2000 and bio-logging science* (The 5th SEASTAR2000 Workshop). 13-15 December, Bangkok, Thailand.
- World Trade Organization. (WTO). (2004). *Tourism and Poverty Alleviation Recommendations for Action*. WTO.

