

Sustainable Tourism at the Edge of Biodiversity: Community Experiences in Indonesia's Marine Protected Areas

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ABSTRACT

Marine protected areas (MPAs) in Indonesia, such as Raja Ampat and Wakatobi, have become internationally recognized for their biodiversity and as ecotourism destinations. While tourism has been promoted as a mechanism to finance conservation and generate local income, little is known about how resident communities perceive and navigate the tensions between ecological protection and livelihood needs. This study employs a qualitative research design to examine community narratives of sustainable tourism within MPAs. Data were collected through ethnographic fieldwork, participant observation, semi-structured interviews with fishermen, homestay owners, and dive guides, as well as focus group discussions with community leaders. Thematic analysis reveals that residents often view tourism as both an opportunity for economic diversification and a source of restrictions on traditional livelihoods, particularly fishing. Narratives highlight ambivalence, as communities' articulate pride in contributing to global conservation while simultaneously voicing concerns about exclusion, inequitable benefit distribution, and cultural change. The findings underscore that sustainable tourism in MPAs cannot be reduced to visitor management or ecological indicators alone. Instead, it must incorporate local voices and participatory governance to achieve equitable and resilient conservation outcomes.

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INTRODUCTION

Marine protected areas (MPAs) have emerged as one of the most widely adopted policy instruments for conserving marine biodiversity while supporting sustainable development objectives. Globally, MPAs are often promoted as "win-win" solutions, where ecological protection can coexist with local economic development through mechanisms such as ecotourism (Cinner & McClannan, 2006). Tourism revenues are expected to finance conservation efforts, create alternative livelihoods, and reduce dependence on extractive practices such as overfishing (Lamb et al., 2014). Indonesia, located within the Coral Triangle, represents one of the most important contexts for these debates, as it is both a global biodiversity hotspot and a rapidly growing tourism destination. Within this national framework, Raja Ampat in Papua and Wakatobi in Southeast Sulawesi have gained prominence as flagship MPAs, attracting international attention for their coral reef systems and rich cultural diversity (Varkey et al., 2010).

While tourism development in MPAs is often framed in policy discourse as inherently sustainable, research indicates that outcomes on the ground are more complex and contested. Scholars have shown that ecotourism can simultaneously generate economic opportunities and exacerbate social inequalities, particularly when benefits are unevenly distributed across communities (Strickland-Munro & Moore, 2014). In some cases, tourism creates new employment opportunities in guiding, accommodation, and handicrafts, yet these benefits often flow disproportionately to households with greater capital, education, or connections to external investors (Scheyvens & Biddulph, 2018). Conversely, the imposition of conservation regulations frequently restricts traditional fishing practices, leading to perceptions of exclusion and livelihood insecurity (Bennett & Dearden, 2014). Such tensions highlight that sustainable tourism in MPAs cannot be understood purely in ecological terms, but must also be examined through the perspectives and experiences of resident communities.

In Indonesia, these challenges are particularly acute because many MPAs are located in peripheral regions where communities have historically depended on small-scale fisheries. In Raja Ampat, for instance, the designation of no-take zones and restrictions on gear use have limited access to traditional fishing grounds, while tourism has introduced new forms of dependency on volatile visitor flows (Campbell et al., 2020). Similarly, in Wakatobi, residents have expressed ambivalence toward conservation and tourism programs, noting that while ecotourism generates new revenues, it also disrupts customary rights and social relations (Clifton, 2013). These ambivalences underscore the need for more nuanced understandings of how sustainable tourism is interpreted, negotiated, and lived by local populations in MPAs.

A growing body of literature emphasizes the value of qualitative approaches in examining such dynamics. Bennett, (2016) argues that participatory and narrative-based research is essential for revealing local perspectives on conservation, as it captures the multiple meanings residents attach to marine spaces, livelihoods, and tourism. Similarly, Fabinyi, (2010) highlights that cultural values, customary practices, and political contexts shape how communities perceive tourism and conservation interventions. Without accounting for these perspectives, policies risk overlooking the lived realities of residents and producing unintended negative consequences. Thus, there is an urgent need to complement ecological and economic assessments of MPAs with research that foregrounds community voices, particularly in regions such as Indonesia where socio-cultural diversity and local governance institutions are central to resource management.

The Indonesian government has articulated ambitious targets for expanding MPAs and positioning ecotourism as a driver of sustainable development. However, critical scholarship suggests that the sustainability of these initiatives will depend on their ability to integrate local participation and equitable benefit-sharing mechanisms (Eghenter, 2018). Studies of ecotourism in Southeast Asia demonstrate that community involvement in decision-making enhances legitimacy, fosters compliance with conservation rules, and strengthens collective stewardship (Coria & Calfucura, 2012). Conversely, top-down conservation models that prioritize international tourists or external investors often erode trust and exacerbate local resistance (Stonich, 2000). These insights point to the importance of situating Indonesian MPAs within broader debates on power, participation, and justice in sustainable tourism.

The present study responds to these gaps by exploring how communities in Raja Ampat and Wakatobi perceive the intersections of conservation and tourism in their daily lives. Drawing on in-depth interviews, focus group discussions, and participant observation, the research seeks to illuminate the narratives through which residents articulate both the opportunities and challenges of living within MPAs. By adopting a qualitative, community-centered perspective, the study contributes to advancing understandings of sustainable tourism in the Global South. Specifically, it highlights the ways in which ecotourism is not simply a technical strategy for conservation financing, but a socially embedded process that reshapes livelihoods, identities, and relations of power. In doing so, the research seeks to enrich theoretical debates on sustainable tourism and inform policy discussions on how Indonesia's marine protected areas can balance global conservation goals with the aspirations of local communities.

LITERATURE REVIEW

Marine Protected Areas and Conservation Goals

Marine protected areas (MPAs) have become a cornerstone of global strategies to conserve biodiversity and restore declining fish stocks. International conventions such as the Convention on Biological Diversity and the Sustainable Development Goals have reinforced the need for expanding MPAs, with targets of protecting 30 percent of the world's oceans by 2030. MPAs are designed to protect ecological functions, reduce overfishing, and mitigate anthropogenic pressures, while also serving as platforms for education, research, and sustainable development (Agardy et al., 2011). In Southeast Asia, and particularly in Indonesia, MPAs are critical because of the Coral Triangle's extraordinary biodiversity and the dependence of coastal communities on marine resources (Cinner & McClanahan, 2006).

Despite their ecological rationale, MPAs have also raised questions about governance, equity, and local support. Research suggests that ecological effectiveness depends heavily on the degree of compliance by local communities, which in turn is shaped by perceptions of legitimacy, fairness, and the balance between costs and benefits (Pollnac et al., 2010). In cases where restrictions undermine traditional livelihoods without offering viable alternatives, MPAs may foster resentment and conflict, thereby jeopardizing conservation outcomes (Bennett & Dearden, 2014). These challenges underscore the importance of integrating social dimensions into the design and management of MPAs.



Ecotourism in Marine Protected Areas

Tourism, particularly ecotourism, has been increasingly promoted as a mechanism to finance MPAs and provide alternative livelihoods to fishing-dependent communities. The logic is that revenues from diving fees, homestays, and guiding services can supplement local incomes while reducing pressure on marine resources (Coria & Califucura, 2012). In practice, however, the outcomes of tourism in MPAs are highly variable. Case studies show that tourism can create new employment opportunities, stimulate local entrepreneurship, and provide resources for conservation (Scheyvens & Biddulph, 2018). For example, in Raja Ampat, the introduction of diving fees has generated funds for conservation patrols, while community-run homestays have provided direct benefits to local families (Varkey et al., 2010).

Yet, tourism can also generate new inequalities and vulnerabilities. In some instances, households with greater capital and connections capture most benefits, leaving marginalized groups with limited access to opportunities (Strickland-Munro & Moore, 2014). Tourism infrastructure may compete with traditional uses of space, displace communities from prime coastal areas, and exacerbate environmental stress through waste, water use, and reef degradation (Lamb et al., 2014). These dynamics illustrate that ecotourism is not inherently sustainable, but its impacts depend on governance arrangements, benefit distribution, and the degree of community participation.

Community Perceptions and Participation

The literature consistently highlights the centrality of community perceptions in shaping the success of MPAs and ecotourism initiatives. Bennett (2016) argues that local perceptions should be treated as legitimate evidence for conservation planning, as they capture lived experiences, cultural meanings, and social trade-offs often overlooked in ecological assessments. Studies across Southeast Asia demonstrate that when communities perceive MPAs as beneficial through improved fish stocks, income opportunities, or enhanced cultural pride—compliance and support are stronger (Bennett & Dearden, 2014; Clifton, 2013). Conversely, when MPAs are associated with livelihood restrictions, inequitable benefit-sharing, or external control, they are met with skepticism or resistance.

Participation has emerged as a crucial factor mediating these perceptions. Research shows that participatory governance, where communities are involved in decision-making, monitoring, and benefit distribution, enhances legitimacy and sustainability (Cinner & McClanahan, 2006). In contrast, top-down governance models that prioritize international NGOs, state agencies, or private investors often marginalize local voices and erode trust (Eghenter, 2018). In Indonesia, where customary institutions such as adat still shape resource use, the integration of local governance with state-led conservation is particularly critical (Clifton, 2013).

Socio-Cultural Dimensions of Sustainable Tourism

Beyond economics and governance, the literature points to the socio-cultural dimensions of tourism in MPAs. Fabinyi (2010) emphasizes that cultural values, social hierarchies, and symbolic attachments to marine spaces shape how communities respond to conservation and tourism interventions. Tourism can be a source of pride, providing opportunities to showcase traditions and engage with global audiences. However, it can also commodify culture, alter gender relations, and create new forms of dependency. Scheyvens (1999) has argued that empowerment frameworks are useful for analyzing tourism's impact, as they capture not only material benefits but also psychological, social, and political dimensions of community well-being.

In the context of MPAs, cultural and ecological values are deeply intertwined. For many communities, fishing is not merely an economic activity but a cultural practice embedded in social identity and customary rules. Restrictions on fishing, therefore, can be experienced as an erosion of cultural rights, even if ecological benefits are recognized (Bennett & Dearden, 2014). Similarly, the introduction of tourism can reconfigure social status, as individuals with English skills or capital to invest in homestays gain prestige, while others are left behind. Such transformations reveal that sustainable tourism must be evaluated not only by ecological and financial indicators but also by its capacity to sustain cultural integrity and social cohesion.

Toward Equitable and Sustainable MPAs

Synthesizing these strands, the literature suggests that achieving sustainability in MPAs requires attention to equity, governance, and cultural context. Ecotourism can provide important opportunities, but its benefits are unevenly distributed and its ecological impacts can be significant. Without active community participation, policies risk reinforcing inequalities and undermining local legitimacy. Indonesia's MPAs, particularly Raja Ampat and Wakatobi, are emblematic of these tensions. They showcase both the potential of ecotourism to finance conservation and the risk of alienating communities when policies neglect local voices.

This review highlights a gap in research that privileges ecological and economic indicators while underexploring the narratives of local communities. Qualitative approaches are well suited to fill this gap by capturing the meanings, ambivalences, and strategies that shape how residents live with conservation and tourism. By focusing on narratives from Raja Ampat and Wakatobi, the present study seeks to contribute to a more grounded and equitable understanding of sustainable tourism in MPAs.

METHODOLOGY

This research employs a qualitative methodology designed to capture the lived experiences and perspectives of local communities within Indonesia's marine protected areas. A qualitative approach was chosen because it allows for the exploration of meanings, narratives, and social dynamics that are not easily accessible through quantitative surveys. The study is grounded in the recognition that sustainable tourism in marine contexts is not only a matter of ecological indicators but also of how communities interpret conservation rules, livelihood changes, and the opportunities and challenges presented by tourism.

Fieldwork was conducted in two marine protected areas: Raja Ampat in Papua and Wakatobi in Southeast Sulawesi. These sites were selected because they are internationally recognized for their marine biodiversity, and they represent flagship cases of Indonesia's conservation and ecotourism policies. Raja Ampat has become one of the most visited diving destinations in the Coral Triangle, while Wakatobi has been established as a national marine park with increasing tourism flows. Together, they provide contrasting yet complementary contexts for examining how sustainable tourism is experienced in different socio-cultural and ecological settings.

Participants were drawn from a range of community groups including artisanal fishers, homestay operators, dive guides, handicraft producers, cultural practitioners, and local leaders. Purposive sampling was employed to ensure diversity in gender, age, occupation, and degree of engagement with tourism, while snowball sampling was used to identify additional participants who could provide nuanced perspectives. Approximately fifty participants were engaged across both sites, balancing those who directly benefit from tourism with those who experience its restrictions more acutely, particularly fishing households.

Data collection relied on three main techniques. First, in-depth semi-structured interviews were conducted with individuals to elicit personal narratives about the ways in which conservation and tourism have shaped their livelihoods and cultural practices. Interviews lasted between one and one and a half hours, and were conducted in Bahasa Indonesia, Papuan Malay, or local dialects depending on participant preference. Second, focus group discussions were organized to facilitate collective reflection among community members, particularly in villages where tourism and conservation have been most contested. Each focus group consisted of six to eight participants and provided insights into shared values, contested views, and community-level coping strategies. Third, participant observation was employed to capture the everyday interactions between communities and tourism actors. This involved observing homestay operations, fishing activities, tourism encounters, and community meetings. Detailed field notes were kept to record contextual information, gestures, and non-verbal cues that enriched the interview data.

All interviews and discussions were audio-recorded with the consent of participants and subsequently transcribed verbatim. When necessary, transcripts were translated into English. The analysis followed Braun and Clarke's six-phase framework of thematic analysis, beginning with familiarization through repeated reading of transcripts, generating initial codes, collating codes into potential themes, reviewing themes against the data set, defining and naming themes, and finally producing a narrative report. NVivo software was used to manage the coding process and facilitate the retrieval of thematically linked excerpts. In addition to thematic analysis,

attention was given to narrative structures in order to understand how participants positioned themselves within broader discourses of conservation, tourism, and community resilience.

To ensure trustworthiness, the study employed several strategies. Member checking was conducted by sharing preliminary interpretations with selected participants to validate accuracy and resonance. Peer debriefing was undertaken with academic colleagues specializing in tourism and marine conservation to refine interpretations. Reflexivity was maintained throughout the research process, with the researcher keeping a journal to critically reflect on positionality, power dynamics, and the potential influence of outsider status during fieldwork.

Ethical approval was obtained from a recognized institutional review board prior to data collection. All participants were informed of the objectives of the research, assured of confidentiality, and reminded of their right to withdraw at any point without consequence. Pseudonyms are used in reporting findings to protect participant identities. By employing these methodological strategies, the study sought to produce a rigorous and ethically sound account of how communities in Raja Ampat and Wakatobi interpret the relationship between conservation and sustainable tourism.

RESULT AND DISCUSSION

Livelihood Transformations and Economic Ambivalence

Participants across both Raja Ampat and Wakatobi consistently described how tourism has reshaped their economic activities and household strategies. For many, the arrival of visitors created opportunities that were previously unimaginable in remote island communities. Homestay owners in Raja Ampat, for instance, recounted how they converted traditional wooden houses into guest accommodations, generating cash income that supplemented or replaced fishing. Dive guides and boat operators similarly emphasized that tourism provided regular earnings and a sense of pride in showcasing local marine biodiversity. In Wakatobi, women described the expansion of handicraft production, where weaving and shell-based crafts found new markets among tourists, reviving skills that had been declining. These accounts reflect a widespread recognition that tourism has diversified livelihoods and offered alternatives to increasingly uncertain fisheries.

At the same time, narratives revealed a strong sense of ambivalence. Residents repeatedly emphasized that tourism has not eliminated economic precarity but rather transformed its form. Several fishers expressed concern that income from homestays or guiding is highly seasonal and vulnerable to global shocks such as the COVID-19 pandemic. One participant in Raja Ampat noted that “fishing was hard, but at least the sea is always there. With tourism, if the visitors stop coming, so does the money.” Such reflections illustrate that while tourism reduces direct dependence on fisheries, it introduces new dependencies on volatile global flows and external markets.

Another source of ambivalence was the unequal distribution of benefits. Households with access to capital, coastal land, or English language skills were more likely to profit from homestays and guiding, while others felt left behind. In Wakatobi, some participants described how wealthier families or those with NGO connections secured tourism projects, while poorer fishers experienced stricter restrictions on resource use without comparable gains. Narratives thus highlight a perceived “double squeeze” where conservation reduces access to marine resources while tourism benefits are concentrated in the hands of a few. This inequality generated frustration, with one villager remarking that “tourism is supposed to be for everyone, but it feels like it belongs to those with power.”

The ambivalence extended to intergenerational perspectives. Younger residents often viewed tourism as an avenue for education, mobility, and self-expression, particularly when learning English or gaining employment as guides. Older generations, however, expressed nostalgia for a time when fishing provided both sustenance and social identity, and they lamented the erosion of customary practices tied to marine livelihoods. These generational contrasts underscore how economic transformations are deeply intertwined with cultural meanings of work, identity, and belonging.

Taken together, these narratives suggest that sustainable tourism in MPAs is experienced as both an opportunity and a risk. Livelihood diversification offers economic hope, yet it simultaneously produces new vulnerabilities and inequalities. Rather than a simple transition from fishing to tourism, residents frame their experiences as an ongoing negotiation between ecological restrictions, global market dependence, and local

129 inspirations for a dignified livelihood. This ambivalence forms a critical backdrop for understanding how communities interpret the broader project of conservation and sustainable tourism.

Conservation, Exclusion, and Cultural Values

Alongside discussions of livelihood change, participants frequently reflected on how conservation rules associated with marine protected areas shaped their sense of belonging and access to marine spaces. Across both Raja Ampat and Wakatobi, residents acknowledged the ecological benefits of MPAs, noting visible improvements in fish stocks and reef health in areas where no-take zones had been enforced. Some fishers described how “the sea is coming back to life,” observing that species previously scarce had begun to reappear. These positive perceptions demonstrate a recognition that conservation can support long-term sustainability and provide a form of ecological security for future generations.

However, such acknowledgments were consistently accompanied by narratives of exclusion. Many participants emphasized that restrictions on fishing grounds disrupted customary rights and undermined the cultural importance of fishing as more than just a livelihood. In Wakatobi, older fishers described sacred connections to certain reefs that were now off-limits under conservation zoning. For them, the prohibition was not only an economic loss but also an erosion of cultural heritage and identity. In Raja Ampat, younger fishers similarly expressed frustration that their families’ traditional fishing areas had been reclassified as protected zones, with one remarking that “we are told these waters are for the world, but they have always been ours.” Such narratives reflect the tension between global conservation goals and localized claims of ownership rooted in history and culture.

Cultural practitioners also highlighted the symbolic dimensions of marine space. In some villages, rituals tied to the sea offerings before fishing expeditions or community gatherings near coastal areas—had been disrupted by conservation rules or the physical presence of tourism infrastructure. Several participants expressed concern that cultural practices risk becoming subordinated to external conservation narratives, where the ocean is valued primarily for biodiversity rather than as a cultural landscape. This dissonance generated feelings of marginalization, as communities saw their cultural authority diminished in favor of scientific or policy-driven perspectives.

Despite these tensions, narratives also revealed nuanced negotiations. Some community leaders in Raja Ampat described efforts to blend adat (customary law) with conservation policies, framing resource protection as consistent with long-standing traditions of stewardship. By positioning conservation within cultural frames, these leaders sought to reclaim authority and enhance local legitimacy of MPA rules. In Wakatobi, residents involved in co-management programs expressed cautious optimism that their voices were being included, though they remained skeptical of whether decision-making power would ultimately be shared equitably.

Taken together, these accounts demonstrate that conservation in marine protected areas is not experienced as a purely ecological intervention but as a deeply cultural and political process. Residents recognized the value of ecological protection but simultaneously contested the ways in which it excluded them from customary rights and practices. These narratives underscore that sustainable tourism and conservation cannot be achieved solely through ecological zoning or visitor management; they must engage with cultural meanings of the sea and address the sense of exclusion that many communities articulate.

Community Adaptation and Negotiated Participation

Although residents frequently described the restrictions and inequities associated with marine protected areas, their narratives also demonstrated considerable creativity and resilience in adapting to new circumstances. Communities in both Raja Ampat and Wakatobi have sought ways to negotiate the space between conservation imperatives and local livelihood needs, often blending traditional practices with new strategies shaped by tourism.

One form of adaptation involved the reinvention of cultural practices for tourism audiences. In Raja Ampat, dance performances and storytelling sessions that were once limited to community rituals have been re-staged for visitors, generating income while simultaneously sustaining cultural traditions. Some practitioners framed this as a pragmatic compromise: by sharing their culture in new ways, they preserved its visibility while ensuring that rituals remained relevant for younger generations. However, others voiced ambivalence, noting that the

reorientation of culture toward market demands risked diluting its spiritual meaning. This tension reflects a broader negotiation, where adaptation is not merely economic but also cultural.

Communities also described attempts to engage with conservation governance through participatory mechanisms. In Wakatobi, several village leaders highlighted their involvement in co-management boards, where local representatives were invited to discuss zoning, patrols, and benefit-sharing schemes with government officials and NGOs. While these forums were often described as limited in their influence, they nonetheless created opportunities for residents to articulate concerns and propose alternative solutions. One leader noted that “at least now we are heard, even if decisions are not always in our favor,” capturing both cautious optimism and lingering skepticism about the depth of participation.

At the household level, adaptive strategies included diversifying livelihoods and informal regulation of resource use. Fishers described how they shifted to part-time tourism work offering boat transport or guiding while continuing small-scale fishing outside restricted zones. In some cases, community groups organized informal monitoring to discourage destructive fishing practices by outsiders, positioning themselves as stewards of marine resources. These practices illustrate how adaptation often operates in the gray areas between formal conservation policies and customary governance, reflecting local agency in shaping sustainable outcomes.

Social media has also emerged as a tool of adaptation and negotiation, particularly among younger residents. In Raja Ampat, youth groups reported using online platforms to promote community-based tourism initiatives and raise awareness of conservation challenges. By mobilizing digital networks, they sought to attract ethically minded tourists and strengthen their bargaining position with external stakeholders. This form of digital engagement demonstrates how communities are expanding the repertoire of participation beyond face-to-face forums, leveraging global audiences to amplify local voices.

Overall, the narratives reveal that adaptation is not a passive process of compliance but an active negotiation of constraints and opportunities. Communities are finding ways to balance ecological protection with livelihood needs, to protect cultural practices while engaging with tourism markets, and to assert agency within participatory structures that often remain asymmetrical. These strategies highlight the resilience of local populations while also pointing to the limits of adaptation when structural inequalities persist. Sustainable tourism in Indonesia’s marine protected areas will depend not only on ecological management but on strengthening genuine participation and ensuring that community adaptations are supported rather than undermined.

Cross-Cutting Insights

When comparing community narratives from Raja Ampat and Wakatobi, several cross-cutting insights emerge that illuminate the broader dynamics of sustainable tourism in Indonesia’s marine protected areas. Despite differences in geography, history, and governance arrangements, residents in both locations articulated similar ambivalences toward tourism and conservation. On one hand, they acknowledged tangible benefits, including new income streams, revived cultural visibility, and improvements in reef health. On the other hand, they expressed unease about exclusion from traditional marine spaces, inequitable distribution of benefits, and growing dependency on external tourism markets.

A central theme across both sites was the perception of uneven gains. Whether in Raja Ampat, where households with homestay capital capture most tourist revenues, or in Wakatobi, where NGO-linked families accessed projects more easily, participants emphasized that tourism does not transform communities uniformly. Instead, it creates new hierarchies, amplifying disparities between those with access to resources and those without. This pattern reflects a broader structural challenge in sustainable tourism, where interventions framed as community-based may in practice concentrate benefits among a privileged minority.

Another common thread was the tension between global conservation discourses and local cultural values. While residents acknowledged ecological improvements from MPA regulations, they consistently emphasized that conservation often overlooked the cultural dimensions of marine use. Fishing was described not only as an economic activity but also as a practice embedded in identity, ritual, and customary law. By framing oceans primarily as biodiversity assets for global protection or tourism consumption, conservation policies risked eroding local meanings and generating feelings of marginalization. Communities responded by adapting traditions for

tourism or by embedding conservation in customary law, yet these negotiations underscored ongoing struggles over authority and recognition.

Participation was also revealed as a contested and fragile process. Both Raja Ampat and Wakatobi communities reported involvement in co-management boards and participatory planning, but they expressed skepticism about the extent of their influence. While being invited to meetings provided symbolic inclusion, participants felt that decisions were still largely shaped by government agencies, NGOs, and external investors. This partial participation reinforced a sense of negotiation rather than empowerment, where communities sought to assert agency within structures they perceived as unequal.

Finally, both cases highlighted resilience and creativity in adaptation. Residents were not passive recipients of tourism and conservation pressures but active agents who diversified livelihoods, developed informal regulations, and mobilized digital platforms to promote local initiatives. These practices reflect an emergent form of community agency that seeks to reconcile ecological, cultural, and economic priorities, even in the face of structural constraints. Yet, they also underscore that resilience is not limitless: without more equitable governance, local adaptation risks being stretched thin and unsustainable over time.

Taken together, these cross-cutting insights suggest that sustainable tourism in Indonesia's marine protected areas is lived as a paradox. Communities recognize its ecological and economic potential, but they also confront its exclusions, inequities, and dependencies. The narratives from Raja Ampat and Wakatobi highlight that the future of sustainable tourism depends not only on managing biodiversity or visitor numbers, but on addressing deeper questions of equity, recognition, and participation.

Discussion

The findings from Raja Ampat and Wakatobi provide a nuanced picture of how sustainable tourism and marine conservation are experienced by local communities. Residents' narratives reveal that the expansion of tourism within marine protected areas brings both opportunities and vulnerabilities, illustrating the ambivalence that has been documented in broader literature on ecotourism and conservation (Scheyvens & Biddulph, 2018; Strickland-Munro & Moore, 2014). While households engaged in homestays, guiding, and handicraft production reported new economic benefits, these gains were offset by increased dependency on volatile tourism markets and by inequalities in access to opportunity. The uneven distribution of benefits echoes prior research showing that tourism often reinforces social hierarchies, privileging households with capital, land, or external connections (Bennett & Dearden, 2014).

A central contribution of this study lies in highlighting how conservation policies intersect with cultural values. Residents acknowledged that marine protected areas improved reef health and fish stocks, yet they also experienced restrictions as a loss of customary rights and cultural identity. This finding resonates with Fabinyi, (2010) argument that marine conservation cannot be understood purely through ecological indicators but must be situated within local cultural frameworks. In both Raja Ampat and Wakatobi, fishing was described as more than an economic practice; it was a way of life tied to ritual, heritage, and community cohesion. By foregrounding these perspectives, the study demonstrates that conservation policies which neglect cultural dimensions risk generating alienation, even when ecological goals are achieved.

The findings also contribute to debates on participation in sustainable tourism governance. In both sites, residents were invited to engage in co-management and participatory forums, yet their narratives revealed skepticism about the depth of their influence. This reflects a broader critique in the literature that participation in conservation is often tokenistic, designed to legitimize externally driven agendas rather than redistribute decision-making power (Coria & Calfucura, 2012; Eghenter, 2018). Nevertheless, community leaders' efforts to blend adat with conservation policies suggest that local actors actively negotiate for authority and recognition. This supports Bennett & Dearden (2014) call for treating community perceptions as valid forms of evidence in conservation planning, reinforcing that participatory governance must move beyond consultation toward genuine power-sharing.

An additional insight concerns the adaptive strategies communities employ to navigate overtourism-like pressures in MPAs. Residents diversified livelihoods, reinvented cultural practices for tourism audiences, and engaged in informal monitoring of marine resources. These practices reveal resilience and agency, aligning with recent scholarship emphasizing that communities are not passive recipients of conservation but active agents

shaping its outcomes (Campbell et al., 2020). However, the ambivalence expressed by participants indicates that resilience is stretched when structural inequalities persist. Without stronger institutional support, these adaptive strategies risk being temporary coping mechanisms rather than sustainable pathways.

Comparing Raja Ampat and Wakatobi underscores both commonalities and differences. Both communities framed tourism as a paradox providing income yet fostering dependency, conserving reefs yet excluding cultural practices. At the same time, site-specific dynamics emerged: Raja Ampat narratives emphasized rapid growth and the pressures of global diving tourism, while Wakatobi accounts focused on longer-standing struggles with governance and NGO-led conservation. These differences highlight the importance of context-specific approaches, supporting arguments that sustainable tourism cannot be implemented as a uniform model but must be tailored to local histories, institutions, and aspirations (Clifton, 2013; Pollnac et al., 2010).

Taken together, the study advances theoretical debates by framing sustainable tourism in MPAs as a socially embedded process rather than a technical fix. Ecological benefits alone are insufficient to secure community support; what matters equally are issues of equity, recognition, and participation. This aligns with calls for a shift from growth-oriented models toward approaches that prioritize community well-being and justice (Higgins-Desbiolles, 2020; Milano et al., 2019). By centering narratives from the Global South, the research contributes to diversifying overtourism and sustainability debates, which remain heavily dominated by European cases. The Indonesian experience demonstrates that sustainable tourism is not merely about balancing visitor numbers with ecological carrying capacity but about negotiating deep cultural and political questions of belonging, authority, and identity.

In summary, the discussion underscores that sustainable tourism in Indonesia's marine protected areas requires more than ecological management or visitor fees. It demands participatory governance structures that empower local communities, equitable benefit-sharing mechanisms that reduce inequality, and recognition of cultural values that extend beyond biodiversity. Only by addressing these dimensions can MPAs such as Raja Ampat and Wakatobi fulfill their promise as sites of both ecological protection and human well-being.

CONCLUSION

This study explored how communities in Raja Ampat and Wakatobi interpret the intersections of conservation and tourism within marine protected areas. By foregrounding residents' narratives, it revealed that sustainable tourism is experienced as both a source of livelihood diversification and as a driver of exclusion and inequality. Households involved in homestays, guiding, and handicrafts articulated pride in sharing their culture and contributing to conservation, yet they also voiced concerns about dependency on unstable tourism flows and unequal access to benefits. Similarly, while communities acknowledged ecological gains such as reef recovery and improved fish stocks, they also described conservation rules as eroding customary rights and cultural practices tied to the sea.

The findings underscore that sustainable tourism in marine protected areas cannot be reduced to technical measures of ecological effectiveness or visitor management. Instead, it is lived through everyday negotiations of opportunity, identity, and belonging. Residents are not passive recipients of policy but active agents who adapt livelihoods, reinvent traditions, and engage in participatory governance, even when structural constraints limit their influence. The comparison of Raja Ampat and Wakatobi highlights both shared ambivalences and site-specific dynamics, reinforcing the importance of context-sensitive approaches.

Ultimately, the study concludes that the future of sustainable tourism in Indonesia's marine protected areas depends on embedding conservation within cultural frameworks, ensuring equitable benefit-sharing, and strengthening genuine community participation. Only by addressing these social and cultural dimensions alongside ecological goals can MPAs achieve outcomes that are both environmentally resilient and socially just.

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Conflict of Interest

The authors declare no conflict of interest related to the publication of this study.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

Agardy, T., Di Sciara, G. N., & Christie, P. (2011). Mind the gap: Addressing the shortcomings of marine protected areas through large scale marine spatial planning. *Marine Policy*, 35(2), 226–232. <https://doi.org/10.1016/j.marpol.2010.10.006>

Bennett, N. J. (2016). Using perceptions as evidence to improve conservation and environmental management. *Conservation Biology*, 30(3), 582–592. <https://doi.org/10.1111/cobi.12681>

Bennett, N. J., & Dearden, P. (2014). Why local people do not support conservation: Community perceptions of marine protected area livelihood impacts, governance and management in Thailand. *Marine Policy*, 44, 107–116. <https://doi.org/10.1016/j.marpol.2013.08.017>

Campbell, C. M., Labrecque, R. M., Schaefer, R. L., Harvis, M., Zavita, K. R., Reddy, L., & Labranche, K. (2020). Do Perceptions of Legitimacy and Fairness Matter in Prison? Examining How Procedural and Distributive Justice Relate to Misconduct. *Criminal Justice and Behavior*, 47(12), 1630–1653. <https://doi.org/10.1177/0093854820916901>

Cinner, J. E., & McCLANAHAN, T. R. (2006). Socioeconomic factors that lead to overfishing in small-scale coral reef fisheries of Papua New Guinea. *Environmental Conservation*, 33(1), 73–80. <https://doi.org/10.1017/S0376892906002748>

Clifton, J. (2013). *The Coming Jobs War*. Simon and Schuster.

Coria, J., & Calfucura, E. (2012). Ecotourism and the development of indigenous communities: The good, the bad, and the ugly. *Ecological Economics*, 73, 47–55. <https://doi.org/10.1016/j.ecolecon.2011.10.024>

Eghenter, A. S. (2018). Organizational Creativity, Play and Entrepreneurship. *Organization Studies*, 39(2–3), 169–190. <https://doi.org/10.1177/0170840617753093>

Fabinyi, M. (2010). The Intensification of Fishing and the Rise of Tourism: Competing Coastal Livelihoods in the Calamianes Islands, Philippines. *Human Ecology*, 38(3), 415–427. <https://doi.org/10.1007/s10745-010-9329-z>

Higgins-Desbiolles, F. (2020). Socialising tourism for social and ecological justice after COVID-19. *Tourism Geographies*, 22(3), 610–623. <https://doi.org/10.1080/14616688.2020.1757748>

Lamb, J. B., True, J. D., Piromvaragorn, S., & Willis, B. L. (2014). Scuba diving damage and intensity of tourist activities increases coral disease prevalence. *Biological Conservation*, 178, 88–96. <https://doi.org/10.1016/j.biocon.2014.06.027>

Milano, C., Novelli, M., & Cheer, J. M. (2019). Overtourism and Tourismphobia: A Journey Through Four Decades of Tourism Development, Planning and Local Concerns. *Tourism Planning & Development*, 16(4), 353–357. <https://doi.org/10.1080/21568316.2019.1599604>

Pollnac, R., Christie, P., Cinner, J. E., Dalton, T., Daw, T. M., Forrester, G. E., Graham, N. A. J., & McClanahan, T. R. (2010). Marine reserves as linked social–ecological systems. *Proceedings of the National Academy of Sciences*, 107(43), 18262–18265. <https://doi.org/10.1073/pnas.0908266107>

Scheyvens, R. (1999). Ecotourism and the empowerment of local communities. *Tourism Management*, 20(2), 245–249. [https://doi.org/10.1016/S0261-5177\(98\)00069-7](https://doi.org/10.1016/S0261-5177(98)00069-7)

Scheyvens, R., & Biddulph, R. (2018). Inclusive tourism development. *Tourism Geographies*, 20(4), 589–609. <https://doi.org/10.1080/14616688.2017.1381985>

Stonich, S. C. (2000). *The Other Side of Paradise: Tourism, Conservation, and Development in the Bay Islands*. Cognizant Communication Corporation.

Strickland-Munro, J., & Moore, S. (2014). Exploring the impacts of protected area tourism on local communities using a resilience approach. *Koedoe*, 56(2), 10 pages. <https://doi.org/10.4102/koedoe.v56i2.1161>

Varkey, D. A., Ainsworth, C. H., Pitcher, T. J., Goram, Y., & Sumaila, R. (2010). Illegal, unreported and unregulated fisheries catch in Raja Ampat Regency, Eastern Indonesia. *Marine Policy*, 34(2), 228–236. <https://doi.org/10.1016/j.marpol.2009.06.009>