

Exploring the Socio-Cultural Dimensions of Corrective Actions in Conservation Management: A Case Study from Taka Bonerate National Park, Indonesia

Ahmad Difa Awlia Aslim¹, Muhammad Akma Ibrahim² and Muhammad Rusdi³

Abstract

This research explores the socio-cultural dimensions of implementing corrective actions in conservation management at Taka Bonerate National Park, Indonesia. Using a qualitative descriptive approach, the study aims to understand how factors such as cultural norms, belief systems, and local power dynamics influence the implementation and effectiveness of corrective actions. Data were collected through participatory observation and in-depth interviews with key informants, including the Head of Taka Bonerate National Park, Head of Administration Sub-Division, Head of National Park Management Sections, Coordinator of Functional Position Group, and local community members. The findings reveal that the national park management has adopted various methods to identify potential abnormalities, such as routine patrols, monitoring, and collecting data and reports from field officers, while involving local community participation. However, challenges persist in the implementation of corrective actions, including limited resources, local power dynamics, and weak law enforcement. These findings reinforce the argument that effective management approaches must integrate technical, institutional, and socio-cultural aspects. By understanding and addressing the socio-cultural factors influencing the implementation of corrective actions, Taka Bonerate National Park managers can develop more adaptive and responsive management strategies to the local context. This study underscores the need for further research focusing on the socio-cultural dimensions of conservation management to develop more adaptive, responsive, holistic, and participatory management strategies in conservation areas. The findings contribute to a more comprehensive understanding of the implementation of corrective actions in conservation management, highlighting the importance of considering socio-cultural dimensions for effective biodiversity conservation and sustainable ecosystem management.

Keywords: Conservation Management, Corrective Actions, Socio-Cultural Dimensions.

INTRODUCTION

Corrective actions play a crucial role in conservation management, enabling managers to address deviations from standards and ensure effective conservation outcomes (Robbins & Coulter, 2007). Control theory emphasizes the importance of monitoring, evaluation, and follow-up to achieve organizational goals (Henri, 2006; Simons, 1994). In the context of protected areas, corrective actions are essential for mitigating threats to biodiversity and ensuring long-term sustainability (Hockings et al., 2006; Leverington et al., 2010).

Taka Bonerate National Park, located in the Selayar Islands Regency, Indonesia, is one of the largest marine protected areas in Southeast Asia (Hakim et al., 2017). This national park faces various conservation challenges, including illegal fishing, unsustainable tourism development, and climate change (Glaser et al., 2010; Nurdin et al., 2019). Addressing these threats requires effective corrective actions from the national park management (Achmad et al., 2020; Raharjo et al., 2021).

However, the success of corrective actions depends not only on technical and organizational aspects but also on socio-cultural dimensions (Berkes, 2007; Ostrom, 1990). Culture-based control theory emphasizes the importance of considering local norms, values, and beliefs in designing and implementing control mechanisms (Efferin & Hopper, 2007; Hauriasi & Davey, 2009). Previous research has shown that integrating traditional ecological knowledge and involving local communities can enhance the effectiveness of conservation actions (Drew, 2005; Shackeroff & Campbell, 2007).

¹ Graduate student of Public Administration, Faculty of Social and Political Sciences, Hasanuddin University, Makassar, Indonesia, E-mail: djamilhasimm@gmail.com (Corresponding Author)

² Department of Public Administration, Faculty of Social and Political Sciences, Hasanuddin University, Makassar, Indonesia.

³ Department of Public Administration, Faculty of Social and Political Sciences, Hasanuddin University, Makassar, Indonesia.

Nevertheless, understanding of the socio-cultural factors influencing the implementation of corrective actions in conservation areas remains limited (Kamoto et al., 2013; Ooft, 2008). Most studies focus on the technical and institutional aspects of control, while the socio-cultural dimensions are often overlooked (Gudynas, 2011; West et al., 2006). This gap needs to be addressed to develop more holistic and effective management approaches (Folke et al., 2005; Pomeroy et al., 2007).

This study aims to explore the socio-cultural dimensions of corrective actions in conservation management at Taka Bonerate National Park, Indonesia. Using a case study approach, this research seeks to understand how factors such as cultural norms, belief systems, and local power dynamics influence the implementation and effectiveness of corrective actions.

METHOD

This study employs a qualitative descriptive research method, which aims to understand and describe the control function of the Taka Bonerate National Park Office in the Selayar Islands Regency. The research was conducted at the Taka Bonerate National Park Office and Taka Bonerate National Park in the Selayar Islands Regency for approximately two (2) months following the proposal seminar. Informants in this study were selected using purposive sampling technique (Sugiyono, 2017) and included the Head of Taka Bonerate National Park Office, Head of Administration Sub-Division, Head of National Park Management Section (Region I Tarupa), Head of National Park Management Section (Region II Jinato), Coordinator of Functional Position Group, and local community members. Data collection techniques used in this study were participatory observation and in-depth interviews. The data collected consisted of primary data obtained directly from informants and secondary data derived from archives, reports, and scientific publications. Data analysis was carried out through three stages: data reduction to identify patterns, themes, or relationships in the data; systematic data presentation in the form of narratives or visualizations; and drawing conclusions based on the findings obtained during data analysis.

RESULT AND DISCUSSION

The findings of this study demonstrate the importance of considering socio-cultural dimensions in the implementation of corrective actions at Taka Bonerate National Park. These findings align with the culture-based control theory, which emphasizes the significance of considering local norms, values, and beliefs in designing and implementing control mechanisms (Efferin & Hopper, 2007; Hauriasi & Davey, 2009). Recent research also underscores the importance of adaptive and responsive management approaches to local contexts in conservation area management (Armitage et al., 2020; Berkes, 2021).

The management of Taka Bonerate National Park has adopted various methods to identify potential abnormalities, such as routine patrols, monitoring, and collecting data and reports from field officers. This approach not only considers technical aspects but also involves the participation of local communities in detecting suspicious activities or rule violations. This aligns with previous research showing that integrating traditional ecological knowledge and involving local communities can enhance the effectiveness of conservation actions (Drew, 2005; Shackeroff & Campbell, 2007). Recent studies also highlight the importance of collaboration between conservation area managers and local communities in natural resource management (Gavin et al., 2018; Waudby et al., 2021).

However, the findings of this study also reveal challenges in the implementation of corrective actions at Taka Bonerate National Park, such as the limited number of monitoring officers in hard-to-reach areas, the need for improvement in monitoring infrastructure, and the lack of effective law enforcement against violations. These challenges reflect the complexity of socio-cultural dimensions in conservation management, where factors such as resource limitations, local power dynamics, and weak law enforcement can affect the effectiveness of corrective actions (Kamoto et al., 2013; Ooft, 2008). Recent research also underlines the importance of addressing institutional and governance challenges in conservation area management (Borrini-Feyerabend et al., 2020; Geldmann et al., 2019).

The results of this study contribute to a more holistic understanding of the implementation of corrective actions in conservation management by considering socio-cultural dimensions. These findings reinforce the argument that effective management approaches must integrate technical, institutional, and socio-cultural aspects (Folke et al., 2005; Pomeroy et al., 2007). By understanding and addressing the socio-cultural factors influencing the implementation of corrective actions, the managers of Taka Bonerate National Park can develop management strategies that are more adaptive and responsive to the local context. Recent studies also emphasize the importance of flexible and adaptive management approaches in the face of environmental and social changes (Cumming et al., 2020; Schultz et al., 2019).

Based on the results of this study, it is evident that there is a need for further research focusing on the socio-cultural dimensions of conservation management. By exploring how cultural norms, belief systems, and local power dynamics influence the implementation and effectiveness of corrective actions, this research paves the way for the development of more holistic and participatory management approaches at Taka Bonerate National Park and other conservation areas. Recent research also highlights the importance of interdisciplinary and transdisciplinary research in addressing complex challenges in biodiversity conservation (Bennett et al., 2017; Tengö et al., 2017).

CONCLUSION

This study explores the socio-cultural dimensions of implementing corrective actions in conservation management at Taka Bonerate National Park, Indonesia. The findings indicate that the national park management has adopted various methods to identify potential abnormalities by involving the participation of local communities, despite challenges such as resource limitations, local power dynamics, and weak law enforcement. These results reinforce the argument that effective management approaches must integrate technical, institutional, and socio-cultural aspects. Furthermore, the study underscores the need for further research focusing on the socio-cultural dimensions of conservation management to develop more adaptive, responsive, holistic, and participatory management strategies in conservation areas.

REFERENCES

- Achmad, A., Nurdin, N., & Ridwan, I. (2020). Collaborative management of the Taka Bonerate National Park: A review. IOP Conference Series: Earth and Environmental Science, 486, 012013.
- Armitage, D., Mbatha, P., Muhl, E. K., Rice, W., & Sowman, M. (2020). Governance principles for community-centered conservation in the post-2020 global biodiversity framework. *Conservation Science and Practice*, 2(2), e160. <https://doi.org/10.1111/csp2.160>
- Bennett, N. J., Roth, R., Klain, S. C., Chan, K., Christie, P., Clark, D. A., ... & Wyborn, C. (2017). Conservation social science: Understanding and integrating human dimensions to improve conservation. *Biological Conservation*, 205, 93-108. <https://doi.org/10.1016/j.biocon.2016.10.006>
- Berkes, F. (2007). Community-based conservation in a globalized world. *Proceedings of the National Academy of Sciences*, 104(39), 15188-15193. <https://doi.org/10.1073/pnas.0702098104>
- Berkes, F. (2021). *Advanced introduction to community-based conservation*. Edward Elgar Publishing.
- Borrini-Feyerabend, G., Pimbert, M., Farvar, M. T., Kothari, A., & Renard, Y. (2020). *Sharing power: learning by doing in co-management of natural resources throughout the world*. Routledge.
- Cumming, G. S., Epstein, G., Anderies, J. M., Apetrei, C. I., Baggio, J., Bodin, Ö., ... & Weible, C. M. (2020). Advancing understanding of natural resource governance: a post-Ostrom research agenda. *Current Opinion in Environmental Sustainability*, 44, 26-34. <https://doi.org/10.1016/j.cosust.2020.02.005>
- Drew, J. A. (2005). Use of traditional ecological knowledge in marine conservation. *Conservation Biology*, 19(4), 1286-1293. <https://doi.org/10.1111/j.1523-1739.2005.00158.x>
- Efferin, S., & Hopper, T. (2007). Management control, culture and ethnicity in a Chinese Indonesian company. *Accounting, Organizations and Society*, 32(3), 223-262. <https://doi.org/10.1016/j.aos.2006.03.009>
- Folke, C., Hahn, T., Olsson, P., & Norberg, J. (2005). Adaptive governance of social-ecological systems. *Annual Review of Environment and Resources*, 30, 441-473. <https://doi.org/10.1146/annurev.energy.30.050504.144511>
- Gavin, M. C., McCarter, J., Berkes, F., Mead, A. T. P., Sterling, E. J., Tang, R., & Turner, N. J. (2018). Effective biodiversity conservation requires dynamic, pluralistic, partnership-based approaches. *Sustainability*, 10(6), 1846. <https://doi.org/10.3390/su10061846>

- Geldmann, J., Manica, A., Burgess, N. D., Coad, L., & Balmford, A. (2019). A global-level assessment of the effectiveness of protected areas at resisting anthropogenic pressures. *Proceedings of the National Academy of Sciences*, 116(46), 23209-23215. <https://doi.org/10.1073/pnas.1908221116>
- Glaser, M., Baitoningsih, W., Ferse, S. C., Neil, M., & Deswandi, R. (2010). Whose sustainability? Top-down participation and emergent rules in marine protected area management in Indonesia. *Marine Policy*, 34(6), 1215-1225. <https://doi.org/10.1016/j.marpol.2010.04.006>
- Gudynas, E. (2011). Buen vivir: Today's tomorrow. *Development*, 54(4), 441-447. <https://doi.org/10.1057/dev.2011.86>
- Hakim, L., Soemarno, M., & Hong, S. K. (2017). Challenges for conserving biodiversity and developing sustainable island tourism in North Sulawesi Province, Indonesia. *Journal of Ecology and Environment*, 41(1), 1-12. <http://jefb.org/>
- Hauriasi, A., & Davey, H. (2009). Accounting and culture: The case of Solomon Islands. *Pacific Accounting Review*, 21(3), 228-259. <https://doi.org/10.1108/01140580911012494>
- Henri, J. F. (2006). Management control systems and strategy: A resource-based perspective. *Accounting, Organizations and Society*, 31(6), 529-558. <https://doi.org/10.1016/j.aos.2005.07.001>
- Hockings, M., Stolton, S., Leverington, F., Dudley, N., & Courrau, J. (2006). Evaluating effectiveness: A framework for assessing management effectiveness of protected areas (2nd ed.). IUCN.
- Kamoto, J., Clarkson, G., Dorward, P., & Shepherd, D. (2013). Doing more harm than good? Community based natural resource management and the neglect of local institutions in policy development. *Land Use Policy*, 35, 293-301. <https://doi.org/10.1016/j.landusepol.2013.06.002>
- Leverington, F., Costa, K. L., Pavese, H., Lisle, A., & Hockings, M. (2010). A global analysis of protected area management effectiveness. *Environmental Management*, 46(5), 685-698. <https://doi.org/10.1007/s00267-010-9564-5>
- Nurdin, N., Achmad, A., & Ridwan, I. (2019). Marine biodiversity conservation in the Taka Bonerate National Park: A local community perspective. *IOP Conference Series: Earth and Environmental Science*, 370, 012024.
- Ooft, M. (2008). Indigenous peoples are rights-holders, not only stakeholders in sustainable forest management. *Global Watch*, 3(2), 21-35.
- Ostrom, E. (1990). *Governing the commons: The evolution of institutions for collective action*. Cambridge University Press.
- Pomeroy, R. S., Mascia, M. B., & Pollnac, R. B. (2007). Marine protected areas: The social dimension. *FAO Fisheries Report*, (825), 149-181.
- Raharjo, S. A. S., Damar, A., Wardiatno, Y., & Hariyadi, S. (2021). Stakeholder analysis of Taka Bonerate National Park management. *IOP Conference Series: Earth and Environmental Science*, 744(1), 012038.
- Robbins, S. P., & Coulter, M. (2007). *Management* (9th ed.). Prentice Hall.
- Schultz, L., Folke, C., Österblom, H., & Olsson, P. (2019). Adaptive governance, ecosystem management, and natural capital. *Ecosystems and People*, 15(1), 1-10. <https://doi.org/10.1073/pnas.1406493112>
- Shackelford, J. M., & Campbell, L. M. (2007). Traditional ecological knowledge in conservation research: Problems and prospects for their constructive engagement. *Conservation and Society*, 5(3), 343-360. <https://journals.lvw.com/coas/toc/2007/05030>
- Simons, R. (1994). How new top managers use control systems as levers of strategic renewal. *Strategic Management Journal*, 15(3), 169-189. <https://doi.org/10.1002/smj.4250150301>
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.
- Tengö, M., Hill, R., Malmer, P., Raymond, C. M., Spierenburg, M., Danielsen, F., ... & Folke, C. (2017). Weaving knowledge systems in IPBES, CBD and beyond—lessons learned for sustainability. *Current Opinion in Environmental Sustainability*, 26, 17-25. <https://doi.org/10.1016/j.cosust.2016.12.005>
- Waudby, H., Petit, S., & Robinson, G. (2021). Pastoralists' perceptions of biodiversity and land management strategies in the arid Stony Plains region of South Australia: Implications for policy makers. *Ecological Management & Restoration*, 22(2), 145-152. CopyRetry <https://doi.org/10.1016/j.jenvman.2012.07.012>
- West, P., Igoe, J., & Brockington, D. (2006). Parks and peoples: The social impact of protected areas. *Annual Review of Anthropology*, 35, 251-277. <https://doi.org/10.1146/annurev.anthro.35.081705.123308>