COLLABORATIVE GOVERNANCE FOR SUSTAINABLE DEVELOPMENT AND MARINE RESOURCESMANAGEMENT IN MALAYSIA

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Introduction

Collaborative governance has emerged as a promising approach to address complex environmental challenges, such as sustainable development and marine resources management (Stakeholder Engagement Science and Practice (Institute for Sustainable Agricultural, Food, and Environmental Science (SAFES)). In Malaysia, a country blessed with abundant marine resources, the need for effective governance mechanisms becomes paramount (Chee et al., 2021). This subtopic aims to explore the concept of collaborative governance and its relevance in the context of sustainable development and marine resource management in Malaysia.

Malaysia's diverse marine ecosystems face numerous threats, including overfishing, pollution, habitat destruction, and climate change impacts. These challenges require multi-stakeholder collaboration involving government agencies, local communities, non-governmental organizations (NGOs), and industry players (Reviving Ocean Health Through Regional Cooperation). By engaging different stakeholders in decision-making processes, collaborative governance can facilitate knowledge sharing, foster consensus-building, and promote transparency and accountability while ensuring sustainable outcomes (Florini, 2018). This article will delve into various aspects of collaborative governance for sustainable development and marine resource management in Malaysia.

The Importance of Sustainable Development and Marine Resources Management in Malaysia

Sustainable development is an approach that aims to meet human development goals while also enabling natural systems to provide necessary natural

resources and ecosystem services to humans (Wikipedia contributors, 2023). Sustainable development and effective management of marine resources are crucial for the socio-economic growth and environmental well-being of Malaysia (The 12th Malaysia Plan: Advancing Sustainability | United Nations Development Programme). As a nation blessed with extensive coastal areas, rich biodiversity, and abundant marine resources, Malaysia recognizes the significance of preserving its marine ecosystems (Salman et al., 2021). Sustainable development ensures that present generations meet their needs without compromising the ability of future generations to meet theirs (Malaysia's Water Vision: The Way Forward - the Malaysian Water Partnership).

Marine resource management is an important aspect of sustainable development. Malaysia is located in the Indo-Pacific region with coasts bordering the Andaman Sea, the Straits of Malacca and Singapore, the Gulf of Thailand, the South China Sea, the Sulu Sea, and the Sulawesi Sea (Bee et al., 2023). The country has a rich marine biodiversity and its marine resources play a crucial role in its economy.
Hence, it entails adopting responsible practices that balance economic activities with environmental protection. By promoting sustainable fishing methods, reducing pollution, and conserving marine habitats, Malaysia aims to safeguard its valuable coastal ecosystems (Chee et al., 2021). To ensure the protection and sustainable use of seas and marine resources, the Malaysian government formulated the "National Policy on Biological Diversity 2016–2025" and has resolved to increase total terrestrial areas by 20% and marine territories by 10% by 2025
(Masud, 2019).

Organizations such as WWF-Malaysia advocate for Malaysia's commitment to conserve 30% of Malaysia's seas and coasts, for the benefit of nature, livelihoods, businesses, and future generations (Marine 2). Furthermore, effective governance in managing marine resources is vital to ensure equitable distribution and sustainable utilization. Collaborative governance involving various stakeholders such as government agencies, local communities, scientists, and non-governmental organizations is essential for successful implementation (Johnstone & Vaghefi, 2019). It is effective in achieving sustainable development outcomes (Fava, 2022).

Challenges Faced in Collaborative Governance for Sustainable Development and Marine Resources Management in Malaysia

Collaborative governance for sustainable development and marine resources management in Malaysia faces several challenges that hinder effective implementation. Marine protected areas (MPAs) in Malaysia are significantly constrained by a host of problems and challenges such as ineffective management, poor institutional capacity, limited enforcement, absence of awareness, and poor socioeconomic status (SES) which influence the conservation of marine resources (Masud, 2019). MPAs problems reflect the challenges in collaborative governance and marine resource management. Some common challenges that may arise in collaborative governance include a lack of trust and communication among stakeholders, conflicting interests and goals, limited financial resources and capacity, lack of public awareness or political will as

well as inadequate legal and institutional frameworks (General, 2022).

Firstly, the lack of trust and communication among various stakeholders is a significant obstacle.

Secondly, different agencies, government bodies, and local communities often resulted in conflicting interests and objectives, leading to disjointed efforts and ineffective decision-making processes.

Thirdly, limited financial resources pose a challenge to collaborative governance initiatives (Mohd Zaideen, 2020; Gao et al., 2023). Insufficient funding hampers the implementation of comprehensive policies, programs, and projects aimed at sustainable development and marine resource management.

Forthly, inadequate institutional capacity and expertise hinder effective collaboration between government agencies, non-governmental organizations
(NGOs), academia, and other relevant stakeholders (Integrated Management of Coastal Zones). Building capacity through training programs can help overcome this challenge.

Fifthly, the lack of awareness and understanding among the public about the importance of sustainable development exacerbates the challenges faced in collaborative governance (3. Environmental Management and Sustainable Development in Malaysia, Danish Environmental Protection Agency). Without active engagement from communities and individuals, it becomes difficult to achieve meaningful progress towards sustainable practices.

Finally, the lack of political will have amplified exercises to overcome inadequate legal instruments and institutional framework. A good and effective legal instrument and framework at least minimises overlapping function and jurisdiction.

Stakeholder Engagement: Key to Successful Collaborative Governance

Collaborative governance involves multiple stakeholders working together to achieve common goals. It is effective in achieving sustainable development outcomes. In the context of marine resource management, collaborative governance can involve clustering spatial management measures such as marine protected areas based on the principles of ecological connectivity and developing or enhancing collaborative governance networks of relevant stakeholders such as managers, community groups, and non-governmental organizations based on the principles of social connectivity (OECD, 2021; General, 2022). One key aspect of stakeholder engagement is promoting inclusivity and representation.

In Malaysia, the government has made significant efforts to engage with stakeholders in these areas. The 12th Malaysia Plan (12MP) is one such initiative

that aims to advance sustainability by guaranteeing continuous economic growth while protecting the environment and continuing Malaysia's commitments to global targets. This theme builds on two game changers namely circular economy and integrated water resources management, critical in fulfilling the goal of building a better, greener, and fairer Malaysia in the post-COVID era. In building momentum towards the start of implementation in 2022, Economic Planning Unit Malaysia (EPU) in partnership with UNDP, organized an interactive dialogue and exchange session on 12 December 2021 with prominent academician, policymakers, members of civil society and private sector (Shafie & Tan, 2021).

Apart from that, the Malaysian government has made significant efforts to engage with stakeholders in the management of its maritime resources. The Maritime Institute of Malaysia (MIMA) is a policy research institute set up by the Malaysian Government under the Ministry of Transport to investigate matters relating to Malaysia's interest at sea and to serve as a national focal point for research in the maritime sector. MIMA focuses on several areas of research, including ocean law and policy, maritime security and diplomacy, coastal and marine environment, Straits of Malacca, and maritime economics and industries (Noh & Yashaiya, 2018).

In addition to setting up MIMA, the Malaysian Institute of Defence and Security (MiDAS) was also set up under the Ministry of Defence to investigate matters relating to Malaysia's defence and security including those within the maritime domain. MiDAS as a think tank for the Ministry of Defence has a centre that focuses more on the ongoing traditional and non-traditional threats within the maritime domain such as national sovereignty, territorial disputes, trans-border crime, maritime legal instruments and framework, marine environment, as well as defence and security maritime engagement.

On another front, local universities such as Universiti Malaysia Terengganu (UMT) also play their role through the establishment of a research centre on the maritime environment and coastal erosion prevention (UMT, 2023). The UMT has contributed their findings to the appropriate government agency in the field of sustainable development and marine resources management for Malaysia.

By involving diverse stakeholders from various sectors and backgrounds, collaborative governance can benefit from different perspectives, knowledge, and expertise. This inclusive approach helps build trust among stakeholders while ensuring that decisions reflect the interests and needs of all involved parties. Furthermore, effective stakeholder engagement encourages transparency and accountability in decision-making processes. Regular communication channels facilitate information sharing, allowing stakeholders to stay informed about policies, regulations, and initiatives related to marine resource management (EAS Congress, 2006).

Case Studies: Successful Examples of Collaborative Governance for Sustainable Development and Marine Resources Management in Malaysia

One successful example of collaborative governance for sustainable development and marine resources management in Malaysia is the establishment of the Coral Triangle Initiative (CTI). The CTI is a regional

partnership between six countries, including Malaysia1, aimed at conserving marine biodiversity and promoting sustainable development in the Coral Triangle region (CTI, 2009). In Malaysia, the CTI has brought together various stakeholders, including government agencies, local communities, NGOs, and academia. One similar example of this is the UMT collaboration with Aquaria KLCC to organize the Coral Conservation Expedition at UMT Marine Natural Research Station on Bidong Island involving local students, fishermen and NGOs. This expedition focuses on replanting corals and bringing awareness to the public on the importance of coral to marine biodiversity (UMT, 2023).

In addition, through collaborative efforts, they have implemented several initiatives to address challenges such as overfishing and habitat degradation. For instance, they have established marine protected areas (MPAs) to conserve critical habitats and regulate fishing activities. An example of conserving and rehabilitating critical habitat is the national mangrove restoration projects led by the Ministry of Natural Resources and Environment Malaysia (NRE) which has involved multi-

[1 Other 5 countries involved in CTI: Indonesia, Papua New Guinea, the Philippines, Solomon Islands, and Timor-Leste]

stakeholders comprising federal and state governments, technical agencies, research and institutions of higher learning, non-governmental organizations (NGOs) as well as civil and local communities. It is carried out through the "Tree Planting Program with Mangroves and Other Suitable Species Along National Coastlines", which has been implemented since 2005 and involved a strategic integrated approach (Ramli & Zhang, 2017). The importance of mangroves to Malaysia was also translated in the formation of the Mangrove Research Unit (MARU) established in 1997 under UMT which has been conducting a wide range of research works in the mangrove habitats throughout Peninsular Malaysia (occasionally in Sabah and Sarawak).

With regards to overfishing an example of Malaysia tackling this issue is through Community-based co-management (CBCM). It is an approach that focuses on partnerships between government agencies, local resource users, NGOs, and other stakeholders. This approach is people-centred, community-oriented, and resource-based, where all parties share the responsibility and decision-making authority for managing a fishery (Viswanathan et al., 2003; Pomeroy et al., 2007).

Fisheries co-management is based on the principle that cooperation between communities and the state can lead to more effective governance of fisheries resources. This approach involves fishers and resource managers working together to improve the regulatory process for managing the resource, to ensure that the people who depend on the resource have a say in its management. An example of this is the collaboration between the Department of Fisheries Malaysia and local fishing communities in implementing co-management approaches (Nurul Islam & K. Viswanathan, 2021). These approaches empower local communities to actively participate in decision-making processes related to fisheries management.

Policy Recommendations for Enhancing Collaborative Governance in Malaysia's Sustainable Development and Marine Resources Management

Strengthening Institutional Framework: The Malaysian government should establish a dedicated agency or department responsible for overseeing collaborative governance initiatives related to sustainable development and marine resources management. This entity should have the authority to coordinate and monitor the implementation of collaborative projects, ensuring effective stakeholder engagement.

Promoting Stakeholder Participation: Encourage active involvement of all relevant stakeholders, including local communities, NGOs, academia, and industry representatives, in decision-making processes regarding sustainable development and marine resources management. Implement mechanisms such as public consultations, participatory workshops, and multi-stakeholder platforms to ensure diverse perspectives are considered.

Enhancing Transparency and Accountability: Establish clear guidelines for information sharing among government agencies, stakeholders, and the public regarding sustainable development initiatives in Malaysia's marine sector.

Conclusion: The Way Forward for Collaborative Governance in Malaysia's

Sustainable Development and Marine Resources Management

In conclusion, collaborative governance holds immense potential for Malaysia's sustainable development and marine resources management. The case studies and discussions presented in this text highlight the benefits of involving diverse stakeholders, including government agencies, local communities, NGOs, and the private sector. By embracing collaborative approaches, Malaysia can achieve more effective decision-making processes that consider various perspectives and interests. Moving forward, Malaysia must prioritize the establishment of robust institutional frameworks that promote collaboration among stakeholders (VietNamNet News,
2023).

This includes enhancing coordination mechanisms between different government agencies responsible for sustainable development and marine resources management. Additionally, strengthening capacity-building initiatives for all stakeholders involved will foster a greater understanding of collaborative governance principles and practices. Furthermore, continuous engagement with local communities is essential to ensure their active participation in decision-making processes. Empowering communities through education and awareness programs will enable them to contribute their traditional knowledge and practices towards sustainable marine resource management (Regional Marine Strategy, 2023).

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