Community Participation in Gunung Ledang Protected Area: Supporting the Sustainable Development Goal (SDG)

Ahmad Naqiyuddin Bakar¹,², Alizah Ali³, Rohani Jangga³, Ahmad Nawawi Yaakob³, Rosnani Mohd Salleh³, and Mohammad Faried Abdul Shukor³

¹Universiti Teknologi MARA (UiTM), Shah Alam, Malaysia
²UiTM Global, UiTM Shah Alam, Malaysia
³Universiti Teknologi MARA (UiTM) Johor, Segamat Campus, Malaysia

ansbakar@uitm.edu.my

Abstract. The 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests. This paper examines the current practices of community participation and its implications on sustainable development agenda (SDG) in the Gunung Ledang Protected Area, Johor, Malaysia. The research utilizes a combination of primary and secondary data. Interview was employed to gather the primary data, while scholarly works, government documents and archival records are the instruments used for gathering the secondary data. The findings shed light on the implications of community participation on sustainable development agenda (SDG) in the Gunung Ledang Protected Area. The main challenge seems to be the lack of holistic measures in tackling community issues that are in conflict with the objectives of SDG. This main factor stems from a combination of several other issues such as decision-making based on short-term result that are mostly constraint due to budget cut and pandemic effect and the lack of understanding on the real meaning of sustainable agenda. These scenario inadvertently influence development processes and threaten the implementation of SDG.

1. Introduction

The Sustainable Development Goals are crucial for a reversing the calamity that leads to greener, more inclusive economies, and stronger, more resilient societies. Successful protected area (PA) governance is significantly related to the effective implementation of policies and practices that promote greater inclusion of community participation [1]. The strategy should be through reconciling policy's goal with community interests in order to encourage genuine support of local communities with PA management initiatives. Notwithstanding, the main problem often faced by many protected areas around the world is that the establishment of many PAs are the resemblance of the typical `conventional and exclusionary top-down approach’ adopted by Yellowstone in 1872 [2,3,4,5]. In consequent, In Malaysia, like in many tropical countries, the management of PAs become major challenges among different stakeholders, ie. land use planners and policy makers in balancing the needs of biodiversity, ecosystem services and
people somewhat overlooked other equally crucial elements, including social, cultural, and political issues [6].

The extent of local community participation in PA management has significant influence to the long-term success of conservation strategies on PAs; including the level of local community compliance with PA policies (review of the global factors or pressure on natural resources however, is not covered in this study). From gross observation, much of the policy and governance of protected areas are not in tandem with globally accepted standard, thereby risk losing the support of local communities with PA policies [7,8,9]. Furthermore, the current centralized governance setup and practices has resulted into the expropriation and exclusion of the local community residing in and around the protected area [10,9,11]. Therefore, this study examines the issues in managing PA especially in the context of community participation and its implication on SDG, using Gunung Ledang as a case study area.

2. Study Background

In recent years, there is growing recognition on the role of community participation in managing PAs more effectively. Many studies proved that local communities are more likely to demonstrate genuine support and involve themselves when their knowledge and inputs are incorporated into PA decision-making processes thus sustaining its long-term conservation strategies [10,12]. However, critics aplenty citing gaps between words and action, while others pointing out that enforcement is vital for the success of conservation in PAs [13,14]. Therefore, it seems that the two-prong strategy of managing PAs are by both top down (enforcement, regulation) and bottom up (community empowerment or participation) approach.

In many cases of PAs management, local communities are denied of their essential for their livelihoods; ie. banning them from extracting natural resources. In some extreme cases, local communities have been expelled from their settlements without adequate provision for alternative means of work and income [15,8]. Consequently, this has resulted into deleterious social impacts on local communities. They have faced limitations in their use of common property resources for food gathering, collection of wood and other products from forests and wetlands, grazing, fishing, hunting, harvest of medicinal plans [2]. This explains the reason behind unsupportive behaviour of the communities toward conservation strategies [16,17], potential conflicts between park managers and local communities, thereby limiting PAs’s biodiversity conservation initiatives [18].

3. Literature Review and Conceptual Framework

In retrospective, the formation the world’s first protected area (PA), Yellowstone, in 1872, was seen as a reaction from the western civilization to persistent deprivation of biodiversity and ecosystem services [18,19]. Consequently, there was an exponential growth of the number of PAs around the world. In 2010, the world’s government have pledged their commitment to expanding protected and conserved areas by agreeing to conserve 17% of the world’s land and inland water ecosystems, and 10% of its coastal waters and oceans, by 2020. At the end of 2020, known as the Aichi Target 11, the Protected Planet Report 2020 brings together the available data to provide an authoritative assessment of progress towards this target. Besides, being developed as part of the post-2020 global diversity framework, it provides a baseline for tracking the new set of goals and targets. According to the International Union for Conservation of Nature (IUCN) and the United Nations Environmental Program (UNEP), in its latest Protected Planet Report, at least 17 percent of land environments are protected as of 2020 — but there are still plenty of initiatives to improve the quality of those protected areas [21,22].

There has been widely recognized in many past studies regarding the value of adopting a more inclusive approach in the implementation of conservation strategies and PA decision-making processes.

Co-management. This term ‘co-management’ first exhibited in 1995 in the Global Environment Fund (GEF) funded Nature Reserve Management Programme (NRMP), and subsequently used by the National Forestry Bureau and the World Bank; it was deliberately used and termed as ‘shared management of natural resources by the community and the nature reserve, featured by cooperatively making a resource management plan and the community assisting in biodiversity conservation work’
[8], [2] contend that, when local communities are sidelined from PA management and their necessities and expectations are excluded, incidences such as poisoning of animals, attacks on park guards, intentional burning of forests, open protest and rallies against protected areas, have become common occurrences in a number of developing countries.

In line with their management objectives, IUCN protected area management categorically classify protected areas. The United Nations and many national governments recognized this category as the global standard for classifying protected areas and thereby increasingly being integrated into government legislation. [6] proposed qualitative criteria for classifying the level of community compliance with PA policies into “high,” “moderate,” and “low” categories (Table 1) and for classifying local community participation in PA management into “included,” “partially included,” and “excluded” categories (Table 2). In their study, they determine whether the existence of buffer zone. They also identified IUCN category I–IV (stricter protection) or IUCN category V–VI (multi-use) regarding the park to demonstrate the nature of each PA’s protection [22].

### Table 1. Definitions for level of compliance of local communities with protected area (PA) policies

| Subcategory | Explanation |
|-------------|-------------|
| High        | Locals accept park policies and illegal activities rarely occur—and/or—Locals are satisfied with PA management. |
| Moderate    | Most locals respect the PA policies, but still there are illegal activities, especially the collection of some particular forest products—and/or—Local community is not completely satisfied with PA management |
| Low         | Policies are not respected by local communities and illegal activities are common—and/or—Locals are dissatisfied with PA management. |

### Table 2. Definitions for level of local community participation in protected area (PA) management

| Subcategory       | Explanation |
|-------------------|-------------|
| Included          | Local communities have effective participation in PA management and decision making, managing the reserve’s future together with other stakeholders. |
| Partially included| PA managers listen to locals’ complaints, and there is also an attempt to develop alternative economic incentives within the community. However, this lacks community participation |
| Excluded          | Neither the problems of local communities, nor their needs, are being addressed or assessed by PA managers. |

How mode of PA governance can be conceptualized? It is proposed that two most relevant principles of Theory of Planned Behaviour (TPB) and Expectancy Disconfirmation Model (EDM) be applied in this study. TPB and EDM was proposed by [23] and [24, 25] respectively. The fundamental approach of these theory and model are based on the concepts of ‘beliefs, attitudes, norms, perceptions, and behavior’. Replicating on the proposition of the Expansive Collaboration Model (ECM), “transdisciplinary involves going between, across, and beyond different disciplines” [26] simultaneously aimed at inclusiveness and balancing interest of the indigenous community. Few conditions must be met so that the governance of PA can really make a positive impact. First, communities of PA ‘tend to be satisfied with PAs when their perceived performance exceeds their expectations and dissatisfied when their perceived performance falls short of expectations’ [27]. Second, ‘a person would be more likely to support a PA if he or she believes that his or her family or leaders would also support it, although such a perception may not reflect what others actually think’ [28]. Third, [12] found that through ‘dialogue, mutual learning, flexibility and recognition of many forms of knowledge’, these enables stakeholders to inculcate overlapping area of interests, share problem definitions, form planning ownership, share agreement, build trust, on the types and purposed of knowledge and ultimately foster productive relationships [29].
4. Research Methodology
The research utilizes a combination of primary and secondary data. Pertaining to collecting the primary data, semi-structured interview was adopted, while for gathering the secondary data, the instruments being referred to including archival records, government documents, scholarly works, and online newspaper reports.

To determine and extract specific information relating to factors that may affect the level of community submission with PA policies and initiatives, systematic review of relevant published studies on PAs was conducted. This study covers only one protected area (PA) in peninsular Malaysia in particular the the Gunung Ledang area which is under the Johor State Parks Corporation (JSPC) and as a case in focus [1]. Qualitative approach was adopted to evaluate or to infer circumstances pertaining to the perceptions of a person or group about social events, the attitudes, and opinions. Empirically, in addition to conducting interviews, the researcher performed personal observation with the officials of JSPC and local communities of Gunung Ledang. Secondary data is obtainable through secondary resources that already exist [30]. In the form of published documents that can include information, government reports, and historical records [31]. Secondary data in the forms of working papers official reports, internet, and programmer books on community development guideline, were also being referred to.

In the process of gathering the data, survey strategies was conducted thoroughly. The interview guide was used to look deep inside the issues and problem related to the case surrounding the governance of the PA itself. Coding technique in which an iterative process was adopted as advocated by [32] called ‘analytic induction’ through the process of categorization. This enables materials to be framed in an interesting relationship that can be identified and interpreted in the research questions and research objectives. The coded data were assessed under specific categorical nodes.

5. Findings and Discussion
The study highlight the conservation policy and its implications on SDG in the Gunung Ledang PA. The biggest issue related to an absence of holistic measures in managing PA challenges that are not in tandem with the objectives of SDG. In general, this conundrum is a direct result of the weak bottom up and empowerment approach. The participation from local community in most of the initiatives is not as impactful as it was intended to be.

According to the study by [33], from Equilibrium Research, the identified 10 critical issues, and their impending challenges facing PAs, along with some proposed reactions in the context of developing post-2020 protected area are: 1. Creating a robust protected areas system 2. Recognising and maximising benefits from protected areas 3. Reconciling local needs with conservation 4. Increasing professionalisation in protected area management 5. Strengthening conservation and social outcomes 6. Optimising use of new technology 7. Ensuring sustainable financing 8. Integrating landscape approaches with conservation 9. Bringing futures thinking into protected areas 10. A conservation agenda beyond 2020.

Based on the government’s political and financial influence, some policy changes that enables cooperative relationship with all stakeholders can be created. Through this, jointly negotiated comanagement scheme based on combined efforts putting on people’s interest first rather than punitive enforcement [34,35]. Enforcement is necessary but it often justifies the formation of new forms of socio-political instruments that are more transparent through which park managers and local communities work together or co-management [36,37]. Rules must imply a new roles and guide action, requiring a new professionalism with new concepts, values, methods and behaviour [38,2]. Sufficient governance must ensure that penalties will be enforced and consistently implemented, even though adequate training, resourceful, and motivated personnel are essential for the achievement of most PAs, [39,40]. Such statements confirm our research findings that effective and sustainable protected area management demands for decentralizing control and empowering local communities are vital.

Of paramount importance, is when PA managers are seeing the benefits of working with locals and comprehend to their needs without endangering the PA’s ecological integrity. We contend that PAs
policies must be developed in correspondence with globally recognized standard, i.e. 2016 World Conservation Congress, 2010 Biodiversity Convention, UNDP’s SDGs and others related. In this case, we could speculate that the international law or convention already provide clear principles that should be observed in dealing with local communities thereby, practice discretionary to predetermined rules, and adjusting to local communities’ wish and sentiments with the local biodiversity conservation effort.

Recently, there is almost no research on park authorities can cope with impact and risk of pandemic COVID-19 more proactively. There is in fact, no research on how best to manage PA in time of crises. Significant budget cut, and financial constraint clearly has contributing to the difficulty to promote effective management of PAs with Gunung Ledang is not an exception. Today, park managers are caught in the dilemma of striking an optimal financial management to sustain the life of the PA, and find themselves targeting not just performance, cost and customer service, but also community support and enforcement. Recent developments in the Gunung Ledang PA are low density and with heavily centralised planning, which may be the expense of a more widely and consistently inclusive approach. The absence of a comprehensive understanding of post-COVID-19 impact would mean that the authorities lacking the capacity to move beyond risk mitigation into creating a more sustainably management of PA. When there is competition for funding, sustainable PA conservation may be disrupted, at the expense of community participation related initiatives.

6. Conclusion
The imperative of collaborative management and broader stakeholder involvement, particularly the importance of recognizing different type of knowledge i.e. the utilisation of indigenous and local knowledge (ILK) to enhance biodiversity protection has become the prerequisite for the sustainable of PAs [10,41,42].

Both political and financial commitment are required in establishing and maintaining PAs for sustainable future. In developing countries, a common funding deficit feature commonly affecting PAs [7]; and perhaps even worst when the pandemic hits. In light of this, we believe that in order to resolve challenges of managing PA and promote local participation thus maximizing its outcomes, partnerships between PA authorities and local communities is vital for stakeholders of PA. Improving governance through prudence PA financial resources and investment, local capacity building, and participation by enabling wider active local participation in PA decision-making processes through jointly negotiated co-management schemes [2]. The co-management agreements can be the instrument to improve access to education and other locally defined community initiatives, including the provision of health care. In this regard, perhaps through trust funds and local credit systems set up, it could also cover technical assistance from conservation biologists for monitoring and advice. Of paramount importance for the success of each PA’s conservation program, there is a critical need to understanding the peculiarities of each PA and the people who live in and around them. How effective the management of today’s PAs will determine whether those areas will remain sustainable for the future, and ultimately bring positive impact in fulfilling the aspiration set forth by the SDGs.

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