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**Improving National Park Management in Malaysia:  
Towards greater community participation**

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**Abstract**

The study evaluates the wider impacts of a national park within the scope of an integrated environmental hub at the global and local level covering, first, divulges concepts relating to the current governance approach to national park management; second, empirical review in lieu with effective management of protected areas demonstrated by co-management and community-based management approach, third, a brief look at two referral case studies, ie. Zagatala-Balakan Biosphere Reserves, Azerbaijan and Comana Natural Park, Romania; and fourth, addressing the efficiency use of local resources associated to those areas. Finally, evaluation on the way and strategy forward for country's intention to gauge on the potentials of National Park.

Keywords: Bio-diversity; National Parks; Protected Areas; environment

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**1.0 Introduction**

The decline in the world's biodiversity is recognised as a key facet of the environmental crisis in which the 20th century has seen the most far-reaching ecological change that provide the greatest threats to the planet and to human survival. There is continuing understanding, starting from the famous Earth Summit in 1992 through to the 2012 Rio Conference, that urgent actions to protect biodiversity matters. At the turn of the century, in year 2000, world leaders adopted the United Nations Millennium Declaration, setting out priority targets and deadline (Orlović-Lovren, 2011). In 2015, countries adopted the 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals. Implementation and success rely on countries' own sustainable development policies, plans and programmes, and will be led by the countries. The Sustainable Development Goals (SDGs) will be a compass for aligning countries' plans with their global commitments (United Nations, 2019: <https://www.un.org/sustainabledevelopment/development-agenda/>).

A significant proportion of Malaysia's protected areas (PAs) are protected in National Parks, in which areas where damaging and extractive activities are banned to ensure the future health of the environment. Yet despite this protection, there are still evident threats within the National Parks that are leading to degradation as well as irrevocable loss of biodiversity.

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Experience with marine conservation in countries around South East Asia has highlighted that effective, sustainable protected area management needs community involvement. There is growing knowledge and several success stories of National Protected Areas (NPAs) that are co-managed or managed entirely by the communities that live within those areas (see Mukul et al., 2012; Ross et al., 2009; Ward, C. et al., 2019; Orlović-Lovren, 2018). One of the best known successful co-managed NPAs is the KwaZulu-Natal National Park, which brought together all its stakeholders into a single community with a strong awareness and ownership of the threatened marine resources in the park (Adeleke, 2015).

## 2.0 Literature Review

### 2.1 The Current Approach to National Resource Management in Malaysia

There are six (6) areas in Peninsular Malaysia that have been gazetted as National Parks, namely Taman Negara National Park (established 1939), Endau-Rompin National Park (gazetted 1993), Penang National Park (declared in 2003), Gunung Ledang National Park (gazetted in 2005), Taman Negara Johor Tanjung Piai, and Taman Negara Johor Pulau Kukup. The current management practice in Malaysia is generally “top-down”, or centrally managed. This has been the approach to management of national parks for over 20 years. When the National Parks in Peninsular Malaysia were established, there was generally no effective consultation with local stakeholders. A review conducted into management of PA in Taman Negara Pahang found that communities would show greater commitment to the Park’s objectives if they were involved in the management process.

Management in Malaysia’s Johor National Parks falls under the Johor National Parks Corporation (JNPC), an exclusive entity under the ambit of the Johor State Government. Decision making resides in headquarters, with offices at State and Island level responsible for local administration and day to day activities. Similar independent entities have been established in Perak, Sabah (Sabah Parks) and Sarawak (Sarawak Forestry Corporation) to take responsibilities for these functions.

However, this has been changing in recent years as communication between local stakeholders and JNPC officers has improved. Collaborations between management agencies and stakeholders have helped to change the perception towards National Parks. Efforts to bridge this gap are continuing, however, much remains to be done to ensure local stakeholders are effectively consulted and involved in managing their resources.

### 2.2 Federal and State Dichotomy

In Malaysia, as indicated in Figure 1 below, the management of National resources is complicated by the Federal-State dichotomy. The Federal Government formulates policies to govern national development, including conservation of natural resources such as National Parks. Section 43 (d) of the Fisheries Act 1985 states that it is an offence for anyone “to construct or erect any building or other structure on or over any land or waters within a National Park or National Reserve”. State Governments, on the other hand, have control over land matters, and have the authority to develop and decide on land use, including on any islands in National Parks (Reef Check Malaysia - RCM, 2016).

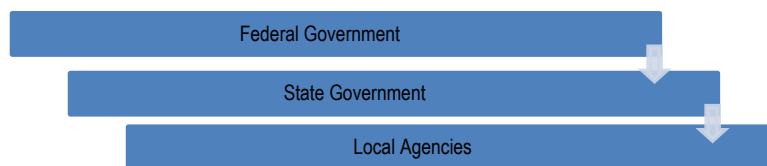


Fig. 1: The three-tiered management system of National Protected Areas in Malaysia  
(Source: Authors' own)

Regarding the legislation of the National Park, in retrospective, during the 1970s the importance of environmental legislation became more recognised at the federal level. The Protection of Wildlife Act, for example, was passed in 1972. Currently, most environment-related legislation is sectoral based, meaning that conservation and protection responsibilities crosscut several departments. For example, the National Forestry Act (1984) is concerned with forestry conservation only. Concomitantly, wildlife and national parks management is the responsibility of the Department of Wildlife and National Parks. Under the Federal Constitution, land, water and forests fall under the jurisdiction of each state. Biodiversity conservation requires forests and land to be protected (Natural Resources & Environment Ministry Malaysia - NRE, 2006).

## 3.0 Methodology

A qualitative design was employed. Denzin (2011) describes qualitative research as involving “... an interpretive naturalistic approach to the world”. The researcher chose this design as it enables one to get quality look at a phenomenon. Data were generated through unstructured interviews, covert observation and analysing documentations on Malaysia’s National Park. Qualitative interviews with key individuals in conservation were conducted, as proposed by Meuser and Nagel (1991).

An unstructured interview was also adopted without any set format but in which the interviewer may have some key questions formulated in advance. In this research, local villagers as well as indigenous communities from Taman Negara Pahang as well as in

Gunung Ledang National Park were interviewed to establish circumstances that led them to feel engaged in the development of PA. In this study, the researchers assumed a quasi-covert observation by mingling among the communities without status revelation. Seven (7) respondents among local communities and researchers from the area near Taman Negara were purposively sampled for this research as they were the ones residing close to the vicinity.

To address this, an insight into (1) the federalism structure in the country, (2) the recent conservation policy and its achievements and (3) the present challenges for local participation were firstly provided. To do so, a very brief case study feasibility assessment of Zagatala–Balakan Biosphere Reserves (BR) (Loiskandl et al. 2009) and the case of Comana Natural Park, Romania (Neacsu and Dodu, 2019) were used.

## 4.0 Findings

### 4.1 Alternative National Park Management Models

A review conducted into management of National Parks in Malaysia, ie. Gunung Ledang, Johor and Taman Negara National Park, Pahang found that communities on these National Parks would show greater commitment to the Park's objectives if they were involved in the management process. The review recommended that all stakeholders should be engaged regularly to discuss decisions that will affect them. Other studies have shown that a strong conservation ethic will arise from the community's sense of ownership of their heritage and the ability to see the connection between their livelihoods and sustainable resource use.

Experience in many locations has demonstrated that through a collaborative approach, university researchers can also work along with communities more efficiently than in the past. In the case of nearby villages, ie. Kampung Gol, Kampung Pagi and Kampung Sg Tiang in Tembeling, Jerantut, Pahang. The highly satisfactory results ie. Community-Based Eco-Tourism (CBET) project (lead by Dr Mohd Salleh Daim of UiTM's Institute for Bio-Diversity & Sustainable Development) are prevailed in information for planning, improved local community consultation, and improved stakeholder engagement through the operationalising of formal governance mechanisms. The lesson learned was that it involves local stakeholders in community-based resource management, and it requires a great deal of consultative work, trust and commitment. The process requires patience and understanding, and it cannot be shortened or rushed. As a matter of fact, the lack of such consultation in Malaysia in part explains why externally developed management activities in the National Parks have had limited success.

The concept of such CBET that are currently being practiced particularly in the area of Kuala Tahan, Jerantut, Pahang can be considered to be alternatives to the commonly top-down approach. Two of them are explored here: co-management and community-based management.

### 4.2 Co-management

Co-management or collaborative management is essentially a reaction to the failure of a top-down approach, whereby there is a realisation that the restrictions imposed by management agencies are difficult to enforce and met with defiance from local stakeholders.

Acknowledgement of this resistance and injustice leads to greater efforts to involve local stakeholders in decision making (RCM, 2016). Management effectiveness in protected area is the most prevalent issue and widely discussed globally. Effective management of PA as defined by the World Conservation Union IUCN is the efficiency use of human and material resources including national/agency protected area regulations and legislation, policies, international conventions and designations, and management plans and/or agreements associated to those areas, on a planned basis directed to accomplish management objectives. It is also crucial for protected area authorities to involve the local communities on a partnership basis. – the villagers including the Orang Asli, in the management of the PA. In many instances, water management, climate change, cultural features and natural environment require local solutions for sustaining the use of resources and protecting the local system of production.

This approach when implementing PA initiatives by considering the local community's readiness to adopt, the options available and how their impact will be assessed before any implementation occurs. Co-management, in other words, is a compromise between a centralised top-down and decentralised community-based approach, where there is a sharing of power and responsibility among all stakeholders (RCM, 2016). Also, this provides a more holistic long-term sustainable initiatives to the specific governance structures to facilitate communication and create synergies while addressing the multiple threats of overfishing, poaching, illegal logging and illegal trade in wild animals, improper sewage, climate change and watershed due to major flooding, etc. (Ahmad Naqiuddin, 2018).

A good example of successful co-management is the Johor National Park Corporation (JNPC) in Ledang, Johor, Malaysia. Initially, the JNPC was first established as a centralised management organisation without involvement from local stakeholders. However, this approach created many problems, including resentment towards management authorities. Later, JNPC employs the local communities as caretaker and rangers to be responsible for environmental monitoring and enforcement that is essential for effective park management. This unique practice can be expanded to other park authorities at other locations. The importance of the relationship between government and community support for biodiversity safeguarding and management is a key focus underpinning the objective of livelihood sustainability; in fact, it is an important factor in the proper management of ecosystems with a strong sense of awareness and ownership of the threatened National resources in the park (Stokes, et al., 2009).

It should be noted that these indigenous factors are vital for accelerating economic growth and sustaining development. In most developing countries, the failure of development policies to achieve satisfactory levels of development has been correctly attributed to the neglect of local ingredients in the potpourri of development (Al-Roubaie, 2010). Thus, relevant authorities or agencies need to employ local people with biology backgrounds as they understand the area ecosystems, threats and mitigation and this will lead to the

better management of these vulnerable ecosystems (Ahmad Naqiyuddin, 2018).

#### **4.3 Community-based management**

The management of protected areas is a complicated process which often reflects the conflict in the relationship between society and protection, usually through the prohibition of particular activities as established in the existing protection status (Andrea et al., 2014). Among the measures that various countries have taken to conserve biodiversity are the establishment of protected areas, the prohibition of trade in endangered species, and the crafting and enforcement of laws to regulate land use. But there has also been increased reliance on economic instruments to conserve biodiversity (Ayoo, 2008). Arguably, therefore, that a first priority for developing efforts should be to exploit tacit knowledge by increasing participation of individuals and other local communities that could have a substantial impact on the process of development. It includes the incorporation of local knowledge and the power to input into the management process of these local resources which is often more important in supporting and providing the basis of local livelihoods to a majority of the population in areas such as Kuala Tahan and its vicinity (Ahmad Naqiyuddin, 2018).

In addition, comparing study results earlier, where tourism development, biodiversity protection and climate change were mostly regarded separately, a shift toward a more integrated development, including climate change as one of the issues to be solved, was observed (Lupp et al., 2016). Moreover, an integrated solution found in participatory scenario approaches can be an “eye-opener” for climate change adaptation and act as a tool to unblock the elements of the motivation chain, and thus end up by generating action.

In the case of the protected area in Serbia, Laktić et al. (2018) have pointed out that the budget of the Ministry of Environment and Spatial Planning (MESP) covers at best only part of the operational costs of the protected area and its portion is decreasing. Therefore, most of the protected areas (PA) in Serbia are pushed to find their own sources of funding (Orlović-Lovren, 2011). In addition, the capacity development processes and projects are oriented towards setting up standards of competences enabling professional staff and empowering community actors to meet high demands of modern protected area management. Moreover, according to Adeleke (2015), the preservation of the KwaZulu-Natal PAs residents of community with high illiteracy, poverty and unemployment like those in Kwadlangezwa are willing to participate in ecotourism businesses, as this could be a way of empowering them economically. Arguably, willingness to participate in ecotourism development and planning could be linked to the higher level of literacy in Empangeni.

#### **4.4 Referral Point for Management of National Parks In Malaysia**

In Malaysia, the approach to conservation that has been in place for over two decades is a “top-down” or centrally managed, rather than a “bottom-up”, community-led model. However, it is increasingly acknowledged that this approach has limitations, particularly as local communities have not been involved in management of the National Parks. Conservation areas requires a subtle involvement, rather than a very extravagant one, which can differ from country to country (Neacsu and Dodu, 2019). To bring a case in point about initiatives on how National resources are managed, there are the two scenarios that are highlighted as a referral point: one with an existing Azerbaijan’s Zagatala-Balakan Biosphere Reserves and a case of Comana Natural Park.

#### **4.5 Zagatala-Balakan Biosphere Reserves, Azerbaijan**

Zagatala-Balakan Biosphere Reserves, with an area of 47,349 ha, the strictly protected “Zagatala State Nature Reserve” (ZSNR) is one of the oldest protected areas of Azerbaijan for a planning exercise on UNESCO Biosphere Reserves (BRs). It provides unique case-analysis for two reasons: the vulnerabilities of the given local socio-ecological system (SES) but also discuss institutional challenges for integrated protected areas such as BRs (Schmidt, et al., 2017). ZSNR was gazetted as a National Park in 1930. Local stakeholders were showing strong dependency on natural resources such as pastures in which subsistence agriculture is the main source of household income providing employment for about 39% of the workforce. Through on-going intensification of agriculture throughout the region, the governmental development programme introduce elements of a co-management system to strengthen the top-down management that is in place. Local land users are increasingly de-coupled from individually using the resource for their own economical existence, becoming employees of Baku or district-based livestock owners and land permit holders instead.

Consequently, the government have implemented capacity building programmes with the local community to prepare them to take a greater role in the management of the Park. In addition, action taken to further reduce rural poverty and thus increase land value. Agricultural land is increasingly privatised, and the emerging large-scale companies with absentee entrepreneurs thoroughly change the ownership structure of small-scale and subsistence farming (Neudert et al. 2015). Today, the awareness among local stakeholders of the beauty and the value of the natural ecosystem are rising. More importantly it provided an opportunity to yet, the demands of local groups and their associated expectations primarily involve the development of infrastructure, job opportunities, and provision of pasture.

The integration of local social groups and their support before, during and after designation is a key aspect for success—and a very new approach in Azerbaijan. In particular, biosphere reserves can help to empower people to design and find sustainable development initiatives for their particular region (Amer et al. 2015; Pollock 2009) and, subsequently, provide an adequate institutional framework for a connectivity pattern within and between social and ecological systems and eventually for sustainable resource use (Gatzweiler and Hagedorn 2002).

As part of efforts to introduce the concept of co-management and get local stakeholders more involved in the decision making and management of the ZSNR, international development agencies offers financial and technical assistance to local communities in a variety of tasks which are closely related to management of the national park itself.

#### 4.6 Comana Natural Park, Romania

Comana Natural Park was founded in 2004, Giurgiu County, at a distance of almost 30 km from Bucharest, Romania. The area is heralded as an area of wetland of international importance due to both the geographical location, and its soil quality (Neacsu and Dodu, 2019). The area is being impacted by the growing tourism market which is putting pressure on its natural and the polluting of the environment by traffic. Resentment at the behaviour of some tourists in a conservative community is exacerbated by the community's concern on the increased number of cars and busses going through the protected areas. In addition, the fisheries and natural resources are not effectively protected or managed, and the community is left by themselves to "manage" the resources they have in the face of decreasing or even loss of beauty of the area. A lack of awareness among local developers has caused the problem of excessive development around the area, which would have negative effects on the area's ecosystem.

Botanists expert of the Romanian Academy such Dimitrie Brândza and Dimitrie Grecescu have been working on Comana Natural Park for decades. The studies and research carried out by the Institute of Biology for instance, found a large number of species in Comana which provide evidence that this park has great potential in terms of biodiversity (Neacsu and Dodu, 2019). National management clearly needs to be improved and the park management plan, combined with support from the government, suggests that a community-based approach would be the most appropriate.

The programme of work in Comana Natural Park involve two main themes:

- The Comana Pond is an extremely important factor, first of all in the Comana Park, being considered as a "micro-delta", presenting specific features unchanged since 1953. A lot of migratory birds' species and not only come back year after year, reason for which this area is considered extremely important in terms of feeding and multiplication of species. Establishing an appropriate structure for improving National management; this involve extensive consultations with all stakeholders (local communities, tourism operators, government) to ensure all views are taken into account in developing the management plan and institutional structures; it will also address funding for management.

- Capacity building to create opportunities for Comana to establish new livelihoods either with the new management organisation (e.g. applicable conduct code inside the protected area) or in the growing tourism sector in line with the proposed conservation and protection desideratum of Comana area.

In addition, forming an organization with which Comana Park administration can collaborate would increase the number of tourists, which would implicitly lead to the development of local communities, but also the economic development.

#### 5.0 Conclusions

The application of ecologically based national parks planning requires an integrated approach to natural, cultural and economic aspects. It requires flexibility in responding to constant changes and pro-activity in finding innovative solutions, involving local community in planning, decision making and providing economic benefits with no harm to nature.

In Malaysia, observation on Gunung Ledang Park and Taman Negara Pahang National Park found that the co-management and community-based management approaches be adopted to some success. The choice of model is determined by the local circumstances of local communities. In the case of Zagatala-Balakan Biosphere Reserves, Azerbaijan, an existing management body collaborate with the local community which has long been sidelined. As for Comana Natural Park, there is an opportunity to introduce a community-based management approach due to the scenario and constraints of an existing system. Coincidentally, the strong hierarchical structure and personified responsibility for any member of the ruling elite or agencies are characteristics for Malaysia will continue to be a challenge.

Both these approaches have something in common, which is the involvement of local stakeholders (particularly local communities) in the management system. There is growing international experience that suggests that local community involvement is the key to ensuring the success of a managed area. When local communities are empowered and well-equipped, they not only realise the importance of safeguarding their natural resources, but they also take ownership of their surrounding environment.

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