

Seminar Nasional dalam Rangka Dies Natalis ke-44 UNS Tahun 2020
“Strategi Ketahanan Pangan Masa New Normal Covid-19”

Ekowisata berbasis fauna: Potensi pemberdayaan masyarakat lokal
di Papua : Review

Fauna-based ecotourism: A potency for local communities' empowerment in
Papua : Review

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Abstrak

Makalah ini membahas potensi dan penyebaran burung endemik yang erat kaitannya dengan tren ekowisata. Dengan memanfaatkan informasi Daerah Burung Endemik (DBE) Papua dan penyebaran burung lainnya (terutama kelompok burung Cenderawasih dan burung Namdur) yang dipadukan dengan keadaan infrastruktur (jalan atau lapangan udara), dapat digunakan untuk menentukan daerah yang berpotensi dalam pengembangan wisata. Daerah yang memiliki lebih dari satu spesies burung endemik dan burung Cenderawasih serta potensi wisata alam lainnya (pantai, laut) dapat ditetapkan sebagai daerah dengan potensi ekowisata utama. Pemerintah perlu menyiapkan dan mendorong keterlibatan masyarakat dalam kegiatan ekowisata, misalnya melalui pembangunan homestay yang bernuansa tradisional. Homestay yang sederhana menjadikan pemeliharannya relatif mudah serta dapat dipastikan hampir tidak membutuhkan biaya yang besar. Selain itu, pemerintah dapat memberikan kemudahan untuk memperoleh izin masuk bagi turis mancanegara, serta meningkatkan komitmen komunitas setempat untuk menjaga kelestarian habitat (terutama burung endemik).

Kata kunci: pemberdayaan, masyarakat, burung, ekowisata, Papua

Abstract

This paper discusses the potency and distribution of endemic bird species that strong related to trends in ecotourism. Utilizing the information of Endemic Bird Areas (EBA) and the distribution of other valuable species (especially the Bird of Paradise, Bower bird) combines with the available infrastructure (roads and airfields), can be used to determine potential areas for tourism development. Areas with high level of endemic bird species and Bird of Paradise plus other potentials on natural attractions (beaches and seas) can be defined as major potential sites for ecotourism. Governments should prepare and encourage the involvement of

local community in ecotourism activities, for example through the development of traditional homestay styles with simple maintenance and relatively low cost; provides easy access and entry permit and improve the local communities commitment to keep the bird's habitat sustainable.

Key words: empowerment, communities, bird, ecotourism, Papua

Introduction

The area of Papua and West Papua covers 404.600 km² or approximately 42 million hectares (Badan Planologi Kehutanan, 2002), that 80% of it was tropical forest. Papua had wide varieties of ecosystems, from coastal to highland. The island biogeographical process led to specific habitats for endemic species. Now, it was considered as global priority area for biodiversity conservation due to the species richness, especially for Australopapuan fauna as well as New Guinean species (Robbins, 1971, in McPhee, 1988). Papua had the highest levels of flora and fauna diversities compare to other islnad in Indonesia; 146 mammals, 329 reptiles and amphibians, and 650 birds. Thus, it was comprised more than 50% of Indonesia's terrestrial vertebrate biodiversity (Conservation International, 1999). Throughout this paper, the one term 'Papua' is used to represent both Papua and West Papua.

The anthropological studies reported that the high biodiversity hot spots were associated to the regions of traditional societies. Papua had greater diversity of ethnicities and cultures rather than other Indonesian provinces. Mansoben (2007) estimated that about 269 living local languages were spoken in Papua. A specific language identified each ethnic group. Each ethnic group had been developed their own ways of using forest resources and maintained local livelihoods. CNN (2020) cited a report from Indonesia Central Bureau of Statistics – BPS, indicated that five provinces with the highest poverty rate in Indonesia were in the eastern Indonesia. They were Papua (26.55%), Papua Barat (21.51%), Nusa Tenggara Timur (20.62%), Maluku (17.65%), and Gorontalo (15.31%).

Tanah Papua has considered as areas riches in copper, gold, silver, oil, gas, timber and marine products. However, the extraction of natural resources, in many cases these extractive initiatives also overlap with vulnerable indigenous territories where the absence or weakness of local governments, and the lack of economic alternatives (GRM, 2009). These often result in impacts that go well beyond the ecological or environmental modifications, to include drastic social changes that affected both the livelihoods of local groups, and the terrestrial biodiversity upon which they depend (Suárez et al., 2009).

This paper aimed to offer an alternatives economic development by using Papua's natural beauties and terrestrial habitats by using the information on the terrestrial biodiversity potential and distribution especially for economy creative and ecotourism development. It is believed that the ecotourism development was, perhaps, the most appropriate economic development for many communities in Papua. By developing ecotourims, community would be involved and gained economic benefit. In addition, it required less capital investment and maintance, and compatible with Papua "fragile" ecosystems.

Approaches

Align to the issues highlighted in this conference "forest resources and ecotourism" this paper limits the discussions on the current potential and distribution of terrestrial biodiversity of endemic-bird species. To develop economy creative, the developer should consider the trends and tourism interest- currently concentrating on bird's diversity – Bird Watching Activities. The main activity of Endemic Bird Area (EBA) was competatition among the birf wacher ro focus on the number of endemic species that could be seen in a certain time. Thus, Papua should become main target for world-wide bird watchers to meet their goal. Another object to incorporate in this analysis were its natural beauties such as mountains, lakes and beaches, that made the trip worthy to offer the opportunities for ecotourism.

The approached that used in the present study was based on the three major aspects: 1) object for endemic bird, 2) accessibility (airport/seaport and road), and 3) supporting infrastructure (homestay, online promotional campaigns). To determine the potential areas for ecotourism we used the EBA and distribution of valued species such as birds of paradise. Then, these areas were overlaid with the existing access (mainly, airports, roads and sea ports) to support for ecotourism activities. Later, we listed the area with highest number of endemic bird, and area that included on the other charismatic species such as bird of paradise, bower birds and others for natural tourism (beaches or mountains) as the most potential area for ecotourism development in Papua in the near future.

Endemic Bird Areas (EBA) for Conservation

There was eight endemic bird's areas in Papua (both Papua and West Papua) considered as main habitat of 134 bird species in the area (<http://www.burung.org>). Three areas were located in West Papua Province including 1) West Papuan Lowland, 2) West Papuan Highland, and 3) Gelvink Island. The other five were distributed across Papua

Province. The EBA in Papua were in 1) Biak Numfor, 2) Northern Mountain of Papua, 3) Northern Lowland of Papua, 4) Jayawijaya Mountain, and 5) Southern Lowland of Papua - Digul-Fly. Each of EBA has its unique species and habitat conditions that attracting international bird watchers to visit Papua. At least, each EBA has 2 – 52 species (<http://www.burung.org>). Yapen Island was EBA with the lowest number endemic birds, while Central Highland was the richest EBA with 52 endemic species.

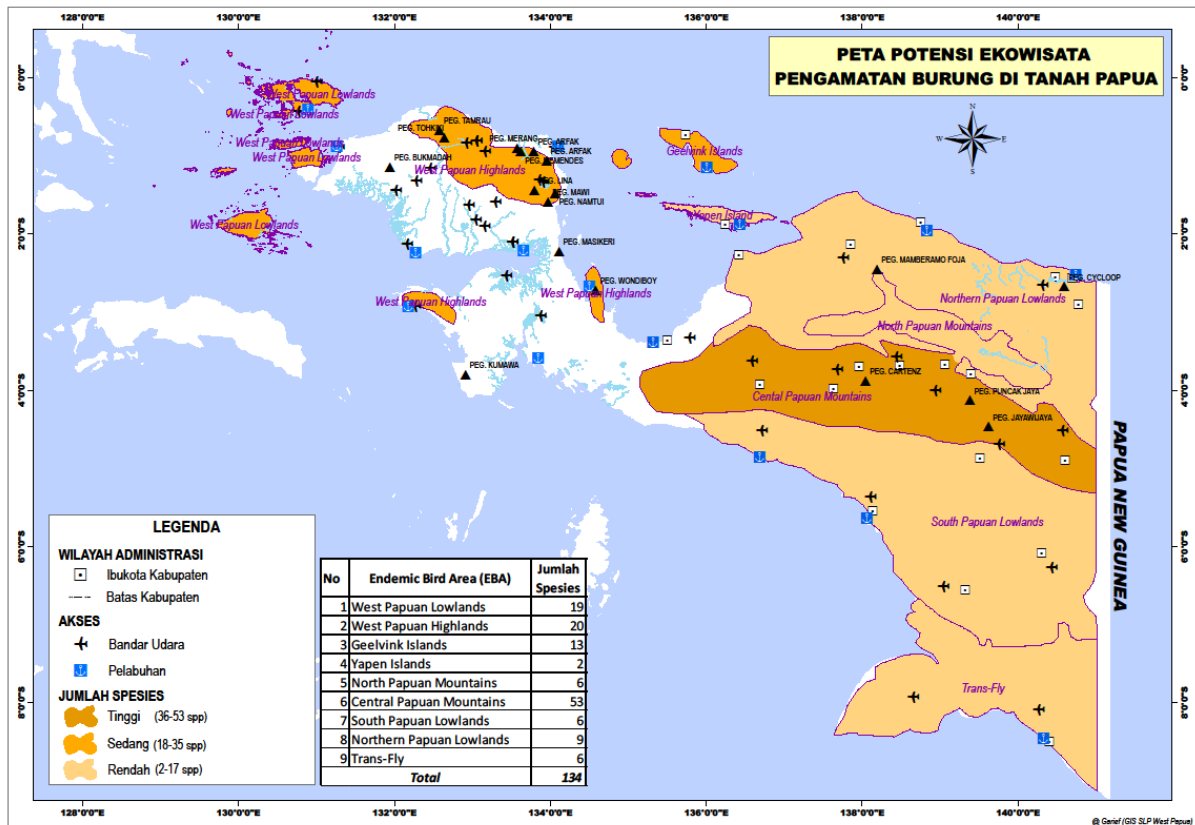


Figure 1. Map showing the infrastructures available and specific notations (mountain and lake) closest to the EBA areas that also important for bird watching in Papua

By using EBA map, the important infrastructures that support ecotourism development such as airport and seaport as well as road connections should be well considered. The difference of brown colour in the figure shows number of endemic birds within the EBA. By combining the number of endemic birds, reliable accessibility (airport or seaport) and other natural objects, priority ecotourism of those area could be determined. Further step was added some features like mountains and lakes to give more information on the EBA as some tourists prefer to climb and roam mountain and lake sites while watching birds (Figure1). Almost all EBA nearby an airport that could hold single-engine plane. This map gave more impressive actions for future development of birding sites, because the

ecosystem service could also be benefited local communities in creative economy. In terms of habitat management, this map played important role to address the issue of biodiversity conservation and sustainable environment management. To boost the contribution of biodiversity on creative economy, the EBA, especially birding sites should be protected for sustainable of bird tourism. The birding sites provided bird's attraction to the tourist. At the same time, local communities benefited this site by providing accommodation, food and guides to the visitors.

Potential ecotourism in creative economy

a. Foreigner visitors

Indonesia's tourism sector accounts for approximately four percent of the total GDP (Situmorang, 2020). In 2019 foreign visitor to Indonesia reach 16.11 million or increase 1.88 percent compared to the same period in 2018 about 15.81 million visitors (<https://www.bps.go.id/>).

Figure 2 shows the number of visitors in Raja Ampat for the past 11 years (The Food and Land Use Coalition - FOLU, 2019). Based on the informal discussion with Zeth Wonggor and friends – local ecotourism business operators from Syoubri village in the Arfak Mountain Nature Reserve, annually between 20-30 tourists visited his bird's spots in Syoubri.



Figure 2. Visitors in Raja Ampat from 2007-2018 (FOLU, 2019)

According to the World Economic Forum's Travel & Tourism Competitiveness Report, Indonesia's rank on tourist destinations was rapidly increased from rank 70th in 2013 to 50th in 2015 (Calderwood and Soshkin, 2019). It was occurred due to enhancement on

the national policies on tourism industries and infrastructure (for example the mobile phone network now covers most areas of the country, and air transport infrastructure has been expanded) that attract the foregner to visit Indonesia. The report also states that Indonesia had an advantages because the price was competitive, comes from the abundance of the natural resources (biodiversity), included many UNSCO natural heritage sites (Calderwood and Soshkin, 2019).

b. Expenditures

The contribution of tourism industries Gross Domestic Product (GDP) should be recognized. Tourism industries trigger an earning from currency exchange, on the average, each intrentaional tourist spent around USD \$1,100 and USD \$1,200 per visit (Indonesia Investment, 2020). It was also providing employment opportunities to the Indonesian people (based on the latest data from

Amount of money tourists will spend during their visit to Indonesia more than enough, it range between 300-500 Euros /person/trip. To gain more benefits from ecotourism, there are many bird watching packages offered to foreign visitors to Papua with several of competitive prices (Asdhiana, 2017). One tourist operator for bird watching (Papua Bird Club) in Manokwari revealed that bird watchers would spent around US\$ 220 - 300/person/day. A group of bird watcher was ranging from 2 to 7-8 per group.

c. Benefits for locals

Apparently, the bird business tourism or "bird tourism" was a promising business in Indonesia. Thus, it had strong link between the 'ecology' and 'economy'. For example, Jakarta Birder, starting from a hobby of bird watching, they began to receive requests from fellow birder from around the world to assist them (Akbar, 2015) The result is seductive-a professional guide could put rates up to hundreds of thousands per day or even per hour.

Based on the case study in Syoubri of the Mountain Arfak Nature Reserve, the money that obtained by bird tourism was acknowledged in supporting children school fee, building church, developing a village as well as the villagers. Those who involved as a tourists guide received the benefits from English training. In addition, they also received the knowledge in building homestay and guide training in collaboration with local NGO. Furthermore, locals also had an oportunity to sell fresh vegetables to the tourists..

The traditional simple homestays that provided local atmosphere had been provided to attract tourists. In Syoubri, Arfak, Pak Zeth Wonggor built a guest house supported by

different stakeholders that involved in the bird tourism. It cost around IDR 10 and 15 million. In Raja Ampat, to build 2 bedrooms in “rumah berlabuh” or house above the water style, it cost around IDR 20 and 30 million (Shita Maria personal communication).

Mostly, homestays were built from timber and palm thatch. A completely traditional homestays constructed by bushed wood or sawn timber framed, floored with sawn flanks, the walls were originally made from palm thatch, and the roof without ceiling. A few have sand floors. The styles of traditional homestay was in variative, a single room with one window, to large four-roomed multi-windowed with verandas and perhaps a common room. Figures 3 shows the common homestay condition in Raja Ampat.



Figure 3 . Common homestay conditions in Raja Ampat

Further involvement of the government

a. Reducing deforestation

Several studies have identified that development of particularly extraction industries (mining, logging and modern agriculture) were threatened on the biodiversity and gave negative impact on environment. Local government relies to mining and other extraction industries to gain more money for locally-generated revenues – “Pendapatan Asli Daerah (PAD).”

The conversion of massive forests was blamed for the reason why some plants and animals became endangered or possibly extinct. The most important thing to consider is how we appreciate a biodiversity richness. The forest conversion rate was speedy up especially for plantation industry that decreased ecological services which crucial to human survival.

The global concern of forest conversion is importance because the forest has a significant role on the mitigation of climate change.

b. Road development

Road development is currently a high priority of the central and local government to boost local economy in Papua. Spatial analysis of road development in Papua was estimated around 2,700 km of road (Anggaraeni & Watopa 2004). The road was also consist of national and provincial network of more than 1,250 km (Mertens, 2002). In addition, it was also included road segments along the coastal of the Bird's Head Peninsula (Pattiselanno and Arobaya, 2015). In his four-days trip to Papua and West Papua, President Joko "Jokowi" Widodo promised to complete the construction of the Trans-Papua highway, which has been postponed due to the various reasons since it started in 2013. He compared the differences among the western, middle, and eastern parts of Indonesia and said that when the infrastructure was built, commodity prices in Sumatera, Java, Sulawesi, Maluku, and Papua would be equal and the gap will no longer be as big as right now.

Economists have written extensively about the link between roads and market access and economic growth, as well as the health of households and national economies in most developing nations (Steffen et al., 2015). Most economists believe roads as a cost-effective way to promote economic growth, encourage regional trade and provide access to natural resources and land suitable for agriculture.

c. Involvement of local communities

To develop creative economy, tourism, and biodiversity conservation programs, it is necessary to support the local governments and people as well as indigenous communities. The decentralized government system gives the opportunity to the regional governments to hold power and authority to manage and control their natural resources. Good government planning in the light of Special Autonomy Law No. 21/2001, which reflects the supremacy of Papuan law, should consider both short- and long-term benefits of particular decisions for the future of Papua's biodiversity.

Government should working closely with local communities rather than fencing them out. It goes beyond most (though by no means all) previous community, participatory, or development efforts intended primarily to win local acceptance of other people's conservation agendas. Partnering with the community provides benefits in maintaining the

sustainability of the program. Working with local communities can also increase local communities' capacity to work for the villages development.

d. Incentives and regulations

The incentives that provided to help local governments by develop sustainable economy was a vital aspect keep the remaining forests intact. The incentives — for forest protection and management — have to be particularly significant, so it can counter the deforestation, such as illegal logging and development of plantation. The most importance is the incentives have to reaches the local and indigenous communities, because they are users and providers of ecosystem services.

Furthermore, the implementation of relevant regulations and strengthened law enforcement is needed to encourage better practices for industries such as logging, mining, and modern plantations.

e. Online promotion

Nowadays, the tourism information was easily accessed through website globally. Thus, it is important to provide all promotion materials in the related website. Some tourist agencies had been promoting their programs online. They considered that it was important to have direct contact with the tourists. Therefore, it is urgent for the government to support the tourist agencies with simple and easy regulation.

Conclusion and recommendation

To support the tourism industries in Papua, it is urgent to local government for improving coordination in overall planning development. For example, the institutions such as for Public Works Agency, Regional Environmental Board, Conservation of Natural Resources Bureau, and Forestry Agency need intensive discussions in order to set up on the further transportation and infrastructure expansion.

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Research institutes and universities have to support the government's plan by conducting relevant studies, especially related to the creative economy, tourism, and

biodiversity conservation. Various types of grant are currently available in Ministry of Research and Technology and Higher Education annually. Nowadays, Ministry of Village also provides grants to support the village development. Within the program, local government at the village level can develop a capacity building program to local communities working on village development. In addition, there are options available from international funds to study the EBA for creative economy, tourist promotion as well as biodiversity conservation to local NGOs. Those who working on community empowerment, biodiversity and conservation as well as environment were eligibility to apply for the available funds. Under the scheme of research and development program from the Ministry of Education can also be accessed by the university staff for local community development program.

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