Analysis of the Impact of the Covid-19 Pandemic Period on the Ecotourism Sector in the Mangrove Area of Pangkal Babu Islamic Sustainable Development Study with the NDEAS Model

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Abstract. Ecotourism is part of the tourism sector that can support the community’s economy as well as an effort to preserve the environment. However, not all ecotourism has been developed optimally because there are still areas that are lagging behind other areas. Plus the impact of the Covid-19 Pandemic which made the tourism sector experience a decrease in visitors due to regulations from health protocols. Including Ecotourism in the Pangkal Babu Mangrove Area which is located in Tungkal 1 Village, Tungkal Ilir District, West Tanjung Jabung Regency, Jambi Province. It was only inaugurated in 2019 but had to feel the impact of the pandemic which reduced the income of the surrounding community who became ecotourism managers. This study will analyze the principles of Islamic Sustainable Development which prioritizes the welfare of the community and also attaches importance to environmental conservation aspects in Ecotourism in the Pangkal Babu Mangrove Area during the Covid-19 Pandemic as a solution to the rise of the community’s economy which will be analyzed through The National Domestic Economic Auto–Sustainability Model (NDEAS Model) to design a strategy for the rise of Pangkal Babu Mangrove Ecotourism during the pandemic and improve the welfare of the community by looking at it from a different perspective to explore the potentials that have not been managed optimally, both from the management system of human organizations, ecotourism management, and SMEs that can be established.

Keywords: Mangrove Ecotourism · Covid-19 Pandemic · Islamic Sustainable Development · NDEAS Model

1 Introduction

Tourism development is one aspect that needs to be developed because tourism can be a major factor in increasing the country’s foreign exchange earnings, resulting in rapid economic growth in creating jobs, increasing income, living standards and encouraging other factors of production [1]. Tourism is an industry that is rapidly developing globally.
In the ASEAN region, Indonesia is a country that has the fastest tourism growth. The Jambi provision is also an area that has many tourist attractions that have started to develop and are in great demand by both local and foreign visitors. One of the tourist attractions owned by Jambi Province is the Pangkal Babu Mangrove Ecotourism Area located in Tungkal 1 Village, Tungkal Ilir District, West Tanjung Jabung Regency which also closed tourist attractions to comply with government policies. It was only inaugurated in 2019 by the regent of Tanjung Jabung Barat as an ecotourism destination, but from the beginning of 2020 until after the pandemic, the Pangkal Babu Mangrove Area still limited visits from outsiders so that revenue from the tourism sector decreased and began to revive in early 2023 by re-opening ecotourism for visitors.

In Islamic teachings, sustainable development is seen as multidimensional which means there are various problems in it. Islamic Sharia provides solutions to problems faced by society, including Islamic Sustainable Development which prioritizes the welfare of the community while at the same time being able to preserve nature as a gift from the Creator. Islamic Shari’a provides guidance to its adherents regarding basic principles in individual economic behavior oriented towards general goals (maqashid al-syariah), namely creating a prosperous society.

To examine the impact of the pandemic on Pangkal Babu Mangrove Ecotourism with the principles of Islamic Sustainable Development will also be analyzed using The National Domestic Economic Auto – Sustainability Model (NDEAS Model) which is a strategy used by the Chinese State to restore the country’s economic sector with a restructuring model after the Wuhan COVID-19 19. By examining the principles of Islamic sustainable development for the Pangkal Babu Mangrove Ecotourism Area during the Pandemic period which was analyzed using the NDEAS Model, it is hoped that it can also become an economic recovery strategy and improve the quality development of the Pangkal Babu mangrove ecotourism.

1.1 Formulation of the Problem

1. How impact of the Covid-19 pandemic on the Pangkal Babu Mangrove Ecotourism Area?
2. How analysis of Islamic Sustainable Development principles as a solution to the rise and development of the economy of the Pangkal Babu Mangrove Ecotourism Area?
3. How strategies that can be applied through The National Domestic Economic Auto – Sustainability Model (NDEAS) Model for the Pangkal Babu Mangrove Ecotourism Area?

1.2 Research Purposes

2. Examining the principles of Islamic Sustainable Development as a solution to the rise and development of Pangkal Babu Mangrove Ecotourism, West Tanjung Jabung.
3. Analyzing strategies that can be implemented through The National Domestic Economic Auto – Sustainability Model (NDEAS Model) towards Pangkal Babu Mangrove Ecotourism, West Tanjung Jabung with the principle Islamic Sustainable Development.
2 Research Methods

The type of research used in this research is qualitative research. This research is a type of field research (Field Research). The data sources used in this study are primary and secondary data. The primary data in this study were obtained based on data obtained from observations, interviews, and other data sources while the author is doing community service from 2020 with the PHP2D program and continuing with the Wira Desa program in 2021 which helps the establishment of five local MSMEs and continues to make regular visits in 2022 to continue to supervise program development, the strengths and weaknesses of the Pangkal Babu Mangrove Ecotourism Area. The research method used is a purposive sampling technique in sampling tourist objects. The purposive sampling technique is how to determine informants by selecting informants according to the criteria and needs of the authors in this study.

The analysis technique used by researchers in this case is with data processed using SWOT analysis: EFAS and IFAS and calculated by presenting it in the form of a SWOT Matrix and NDEAS Model which provides a sustainability model in the form of (a) standardization platform for domestic technical education and training (P1); (b) infrastructure platform and domestic productive transportation (P2); (c) strategic trading, investment and selective protection (P3) platforms; (d) natural resources and environment management platform (P4) [4]. The strategy for economic revival when facing the Covid-19 pandemic is by studying the principles of Islamic sustainable development.

3 Results and Discussion

3.1 SWOT Analysis

See Table 1.

3.2 Analysis of NDEAS Models

The National Domestic Economic Auto-Sustainability Model (NDEAS-Model) proposes four economic platforms, namely (a) standardization platform for domestic technical education and training (P1); (b) infrastructure platform and domestic productive transportation (P2); (c) a strategic platform for selective trade, investment and tourism protection (P3); (d) natural resources and environment management platform (P4). The main goal of the NDEAS-Model is to avoid imported massive pandemic diseases, unsustainable and weak food security platforms, and job diversion.

Standardization of Domestic Technical Education and Training (P1)

The last education of the respondents in the research was conducted by Marini in her thesis entitled “Contribution of Utilization of Mangrove Protected Forest Areas to Household Income of the Community of Tungkal I Village, Tungkal Ilir District” with the most number of Elementary Schools, namely 14 people and the least recent education was High School, namely 4 people. So it can be concluded that the level of education does not affect the process of utilizing protected areas of mangrove forests because the respondents who do the utilization do not have a high level of education. In addition, the existing
### Table 1. Pangkal Babu Mangrove Ecotourism SWOT Analysis

<table>
<thead>
<tr>
<th>Internals</th>
<th>external</th>
<th>Threats</th>
</tr>
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</table>
| Opportunity | 1. High interest and enthusiasm from the village community regarding management and the utilization of the Pangkal Babu Mangrove Ecotourism Area is an opportunity for more optimal development.  
2. There is cooperation with other stakeholders regarding the management of the Pangkal Babu Mangrove Ecotourism Area.  
3. The community’s insight regarding the importance of mangroves is already quite good.  
4. There are local MSMEs that produce typical Pangkal Babu products. | 1. The impact of the Covid-19 pandemic on the economic sector and limited tourism activities.  
2. Ecotourism in the Pangkal Babu Mangrove Area cannot compete with surrounding tourism.  
3. There is a potential for damage to the ecosystem in the Pangkal Babu Mangrove Ecotourism Area consequence utilization and disorganized management. |

*(continued)*
<table>
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<tr>
<th>Strength</th>
<th>Opportunity</th>
<th>Threats</th>
</tr>
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</table>
| 1. The Pangkal Babu Mangrove Ecotourism Area has various types of mangroves that can support the development of mangrove ecotourism, one of which is as a means of supporting the empowerment of mangrove crabs, shrimp and other marine biota. | SO strategy  
1. Collaborate with academics and tourism management experts for the development and management of ecotourism, both for the mangrove area itself or for production to become regionally unique products.  
2. Design and deliver programs training Ecotourism management.  
3. Create opportunity economic income by further increasing the production of new Pangkal Babu handicraft products based on mangroves.  
4. Maintain mangrove ecotourism while still paying attention to the carrying capacity of the area.  
5. Continue to develop the potential of the 5 local MSMEs that have been established. | ST Strategy  
1. Collaborating with third parties to develop the Pangkal Babu Mangrove ecotourism area and provide facilities and infrastructure as well as ecotourism infrastructure.  
2. Did a number of renovations means Ecotourism mangrove forests so that tourist attractions are more attractive to tourists.  
3. Set a number regulation to maintain the ecosystem mangroves Babu base  
4. Provide environmental/conservation education to every tourist  
5. Provide training and other assistance for 5 Local MSMEs. |
<p>| 2. There are animals that attract the attention of tourists when visiting. |                                                                           |                                                                        |
| 3. The activities provided for tourists are activities around the mangroves by boat or walking on the tracking bridge. |                                                                           |                                                                        |
| 4. Mangrove forest ecotourism has now been managed by the Tanjabbar Disapora in collaboration with POKDARWIS. The community has also participated by establishing local MSMEs. |                                                                           |                                                                        |</p>
<table>
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<tr>
<th><strong>Weaknesses</strong></th>
<th><strong>WO strategy</strong></th>
<th><strong>WT Strategy</strong></th>
</tr>
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<tbody>
<tr>
<td>1. Pangkal Babu Mangrove Ecotourism is too well known to many groups, both from within and outside the region, it is necessary to have tour packages that attract more visitors and competition with the same type of tourism as well as massive promotions both through social media and digital media.</td>
<td>1. Managers and local government complement the diverse and interesting tourist activities, the size of the parking lot, provide public transport.</td>
<td>1. Optimizing the presence of trash cans in every corner ecotourism mangroves so as not to damage the ecosystem.</td>
</tr>
<tr>
<td>2. Accommodation is still inadequate because there are only a few homestays provided by the community</td>
<td>2. Resident local introduced how to open and cultivate good and correct homestays.</td>
<td>2. Improving facilities and infrastructure, as well as repair facilities the damaged one. To be able to compete with other tourist attractions.</td>
</tr>
<tr>
<td>3. Ancillary Services or additional services such as the availability of places to eat and drink typical of processed mangroves are still not available because there are only small stalls around the destination.</td>
<td>3. Manager This tourist attraction complements food stalls, souvenir shops with typical Pangkal Babu products.</td>
<td>3. Optimizing the presence of service centers to provide information and applicable regulations</td>
</tr>
<tr>
<td>4. Souvenir shops or shopping centers are also still not available. At present the Pangkal Babu Mangrove Ecotourism Area does not yet have unique souvenirs and bridge facilities still need to be repaired because they use weathered materials</td>
<td>4. There is an independent Pangkal Babu Ecotourism website and ticket reservations Log in offline or online.</td>
<td></td>
</tr>
<tr>
<td>5. Ecotourism information cannot be accessed online with complete information/does not yet have an independent website; it is still part of the local government website in a nutshell.</td>
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community has lived in Pangkal Babu for a long time so that even though the level of education is very low, namely elementary school, the community is able to make good use of the mangrove forest protected area. However, without adequate education, both formal and informal, it will affect the process of maintaining mangrove forests. If there is no good maintenance, the existence of mangrove forests will gradually disappear.

Through counseling, the community can be assisted starting from counseling held by the Go Green UKM service team regarding Ecotourism Management Management and from Non-Governmental Organizations Conservation Stalls (WARSI) such as how to use pidada fruit to make syrup, jeruju leaves to make chips and nipah fruit to make dodol, by practicing directly in front of the community how to make it easier to understand, so that the community can learn non-formally to various counseling conducted by other agencies to provide direction and training to the community.

Productive Domestic Infrastructure and Transport (P2)

Happy Hamlet is the hamlet that is closest to the mangrove forest protection area, especially RT 07 and RT 08. Access to Pangkal Babu Dusun Bahagia can be reached by water using a motorized boat commonly called ‘Pong-Pong’ or land routes from Jambi can be reached by four-wheeled and two-wheeled vehicles, but until now four-wheeled vehicles have not been able to enter ecotourism sites because the roads are still not wide enough. Access to Pangkal Babu is now better because of road improvements with the help of the private sector.

Strategic Selective Trade, Investment, and Platform Tourism Protection (P3)

The platform demands collaboration and coordination from the ministries of industry and trade, exporters (traditional and non-traditional products), chambers of commerce, tourism promotion agencies, ministries of agriculture and ministries of foreign affairs in the same country. In the Pangkal Babu Mangrove Ecotourism area, local people who work as coconut farmers usually sort old coconuts for sale to the city of Tungkal and other areas. In the agricultural sector there is the Pangkal Babu Women Farmers Group (KWT) which grows various types of vegetables that can meet the daily food needs of the surrounding community and some are sold outside the Pangkal Babu area. Since the establishment of local MSMEs, several regional special products have also been tried to be developed and sold outside the region, such as Pangkal Babu honey. Mangrove Crab, prawn crackers and batik with the typical Pangkal Babu motif. The promotion for the Pangkal Babu Mangrove Ecotourism has been carried out through the website of the Tourism, Youth and Sports Service and social media visitors who have come indirectly have also participated in promoting the Pangkal Babu Mangrove Ecotourism.

Management of Natural Resources and Environment (P4)

This platform improves administrative procedures, legal frameworks and institutional organization related to better management of environmental pollution control and pro-environmental policies. The Pangkal Babu Mangrove Ecotourism Area under Disapora which also forms a Tourism Awareness Group (POKDARWIS) consisting of Pangkal Babu youths jointly manages mangrove ecotourism. For the mangrove forest itself there is a Mangrove Supervisor who routinely controls the condition of existing or newly planted mangrove forests so that their sustainability is maintained. There is another
youth organization called ‘Pesisir Youth’ which also helps protect and preserve the nature around the Pangkal Babu mangrove ecotourism area.

4 Conclusion

Islamic perspective in the context of sustainable development in three dimensions, namely worldview or basis of thinking, goals and practical methods. Here the author will try to analyze strategies that can be designed for sustainable economic development in the Pangkal Babu Mangrove Ecotourism Area with the results of the SWOT analysis and NDEAS Model above with the principles of Islamic Sustainable Development:

1. Instill the belief that nature is created by Allah SWT. Must be utilized for the welfare of people’s lives in the Pangkal Babu Mangrove Ecotourism area without destroying nature by maintaining the balance of the ecosystem and this obligation must be carried out by humans as caliphs on earth in accordance with the Islamic World View, education training can be carried out to the community both from ecotourism management, environmental preservation, and training to improve the ability to produce local specialties.

2. To achieve the goal of falah or community welfare both in worldly affairs and in the hereafter, there needs to be a balance between individual interests and the benefit of the people, namely by the existence of cooperation between several related parties from the government, local community, academics, and visitors which makes a symbiotic relationship of mutualism and the pleasure of all. Parties in advancing and developing the economy from the utilization of the Pangkal Babu mangrove ecotourism.

3. In a sustainable economy, the government needs to pay attention to five basic human needs that must be met, namely maintenance of the safety of religion (al-Din), soul (al-Nafs), reason (al-Aql), offspring (al-Nasl) and property (al-Nasal). -Maal). In the Mangrove ecotourism area, in terms of religion, they have been freed to carry out worship according to their respective religions, but for public health services they have to travel quite a distance and there must be a nearby health service that also supports ecotourism. Formal and non-formal education must also be provided and regenerated to continue living in Pangkal Babu to protect and preserve natural resources which are community assets.

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