UNIVERSITI TEKNOLOGI MARA

DEVELOPING AN INCLUSIVE COMMUNITY SUSTAINABLE LIVELIHOOD FRAMEWORK THROUGH BLUE ECONOMY CONCEPT FOR MARINE AND COASTAL TOURISM DESTINATION DEVELOPMENT

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of the requirements for the degree of
Doctor of Philosophy
(**Hotel and Tourism Management)**

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ABSTRACT

Sustainable livelihoods in marine and coastal destinations require development strategies that balance economic growth with environmental conservation and community well-being. While the Blue Economy has been promoted as a pathway to achieve this balance through initiatives such as marine protected areas, sustainable fisheries, and eco-friendly coastal tourism, there has been limited research examined how tourism development specifically shapes community livelihoods within this framework, particularly in the Malaysian context. Therefore, the present study examines how current tourism policies and initiatives have influenced local livelihood assets, strategies, and outcomes. It further explores the potential of adopting a multi-livelihood strategy, grounded in Blue Economy principles, to strengthen socio-economic resilience among coastal communities. Guided by the Sustainable Livelihood Framework (SLF) and Blue Economy principles, this qualitative research employed semi-structured interviews with sixteen stakeholders, including tourism operators, local communities, government officials, and academics. The purposive sampling technique used to provide a rich and diverse perspective. Thematic analysis used to analyse qualitative data through Nvivo software. This study also established validity in qualitative research known as trustworthiness, which includes four criteria for qualitative inquiry: credibility, transferability, dependability, and confirmability. Findings reveal both opportunities and challenges in integrating tourism development with Blue Economy strategies. Key issues include policy coordination gaps, limited community capacity-building, and environmental management concerns. Nevertheless, evidence suggests that a multi-livelihood strategy combining tourism, fisheries, and other marine-based activities can enhance household income diversification, strengthen adaptive capacity, and support long-term sustainability when embedded within inclusive governance mechanisms. The study contributes theoretically by extending SLF applications to the tourism Blue Economy nexus, offering a novel lens to assess socio-economic transformation in small island contexts. Policy contributions include the need for clearer Blue Economy guidelines, integrated tourism livelihood planning, and targeted capacity development. Overall, the findings provide actionable insights for policymakers, practitioners, and community leaders seeking to operationalise sustainable coastal development in Malaysia and comparable island settings. However, as a qualitative case study conducted in a single context, the findings provide in-dept insights but are not intended for broad generalisation.

Keywords: Marine and Coastal, Blue Economy, Sustainable Livelihood Frameworks, Tourism Development, Multi-livelihood Strategy

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LIST OF ABBREVIATIONS

Abbreviations	
CBE	Community Based Eco-Tourism
CBET	Community Based Eco-Tourism
CBOs	Community Based Organisations
CBT	Community Based Tourism
COVID-19	Coronavirus Diseases
DFID	Department for International Development
DOSM	Department of Statistic Malaysia
ESA	Ecosystem Services Approach
FGD	Focus Group Discussion
GDP	Gross Domestic Product
IDR	Indonesia Rupiah
IMT-GT	Indonesia-Malaysia-Thailand Growth Triangle
IPCC	Intergovernmental Panel on Climate Change
LDCs	Least Developed Countries
MDGs	Millennium Development Goals
MMC	Manjung Municipal Council
MTPB	Malaysia Tourism Promotion Board
MOTAC	Ministry of Tourism, Arts, and Cultural
NCER	Northern Corridor Economic Region
NCIA	Northern Corridor Implementation Authority
NGO	Non-Governmental Organisation
PPPs	Private Public Partnerships
PRAs	Participatory Rural Appraisals
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses

PWC	Pricewaterhouse Copper Advisory Service
SDGs	Sustainable Development Goals
SIDs	Small Island Developing States
SL	Sustainable Livelihood
SLA	Sustainable Livelihood Approach
SLF	Sustainable Livelihood Framework
TDC	Tourism Development Corporation
UNCED	United Nations Conference on Environment and Development
UNEP	United Nations Environment Programme
UNWTO	World Tourism Organization
WCED	World Commission on Environment and Development
WOS	Web of Science
WTTC	World Travel & Tourism Council
12MP	The Twelfth Malaysia Plan

CHAPTER 1
INTRODUCTION

1.1 Preamble

The first part of this introduction section highlights the tourism industry performance globally, the connection between tourism and sustainable tourism development as well as towards marine and coastal destinations development, particularly on how tourism development influences the local community livelihood through blue economy concept. Then, it is followed by illustrating the problem statement, scope of study, research objectives, research questions, the significance of the study from both academic and practical perspectives. The last section describes the definitions of key terms and the organization of the thesis.

1.2 Research Background

Over the years, tourism industry has experienced continued expansion and diversification to become one of the world's largest and fastest-growing economic sectors (World Tourism Organization (UNWTO), 2021). On a side note, the global travel and tourism industry contributed US$8.9 trillion to the world's Gross Domestic Product (GDP), which is equivalent to 10.4 percent of global GDP (WTTC, 2019). Along with that, in 2020 World Travel and Tourism Council (WTTC) announced that the industry provided 334 million jobs equivalent to 10.6 percent of total occupations, which is one-fourth of all net new jobs globally between 2014 and 2019. The growth of this industry impacts the economy, socio-cultural, and environment throughout the region. For international tourist performance, European countries have tremendously shown excellent arrivals. However, the growth in international arrivals has risen faster than the global average for both Middle East and Asia and Pacific region (UNWTO, 2021). This growth has been associated with the expansion of travel markets and diversification of tourism destinations (Richardson, 2021) whereas travel destinations such as Africa, the Middle East, Asia and the Pacific which include numerous

developing countries have emerged as a newly accessible travel destinations by tourists (Fennell, 2020; UNWTO, 2021).

As a result, tourism has become an essential element in developing the world economy and is one of the leading sources of revenue for advanced and emerging countries (Bhatt et al., 2024: Costa, 2017; Mason, 2015). In line with this notion, developing countries such as Malaysia are achieving positive growth in their GDP. Notably, the industry promotes the standard of living of the host countries, creating employment, and generating income (Rodrik & Stiglitz, 2025; Shahbaz et al., 2019; Telfer & Sharpley, 2015). As one of the developing countries, Malaysia's economic performance has remained resilient in recent years, with the economy expanding by 4.9 % in 2025, driven in part by robust growth in the services sector which includes tourism and continued domestic demand (Latiff, 2026). In terms of tourism's direct contribution to the national economy, the tourism industry generated RM 291.9 billion in 2024, accounting for approximately 15.1 % of Malaysia's gross domestic product (GDP) and supported an estimated 3.5 million jobs or 21.6 % of total employment (Department of Statistic Malaysia (DOSM), 2024). This performance reflects a strong post-pandemic recovery trajectory, with inbound and domestic tourism expenditure rising sharply compared to pre-COVID levels.

Tourism has been one of the driving forces behind sustainable development, while being closely linked to the social, economic, and environmental well-being of many countries (Richardson, 2021) particularly developing countries. Tourism contributes to poverty alleviation, as supported by Cater et al. (2015) who stressed that tourism brings benefits to developing countries such as Africa, Asia, and Latin America by conserving biodiversity, strengthening local communities, and promoting economic development support. It is important to acknowledge that the effects of tourism extend to all parties involved, resulting in both positive and negative outcomes, some of which are difficult to quantify. As a result, sustainable development is proposed where it emphasizes the responsible use and preservation of resources to ensure their continued existence. However, achieving this sustainable goal requires recognizing the complex tourism-related obstacles that impede tourism development progress.

The importance of sustainable tourism is also highlighted in Sustainable Development Goals (SDGs), which aim to develop and implement tools to monitor sustainable development impacts for sustainable tourism that creates jobs and promotes

local culture and products that leads to the human wellbeing (UNWTO, 2018). It consists of 17 goals or pillars which are an urgent call for action by all developed and developing countries. Besides, it also recognizes that eradicating poverty and other deprivations must be combined with initiatives to promote health and education, decrease inequality, and stimulate economic growth while addressing climate change and striving to protect our oceans and forests. However, due to the different stakeholders in tourism, including tourism businesses, government, tourists, and local communities (Biendra et al., 2021; Duglio et al., 2019; McCartney et al., 2022; Polukhina et al., 2021), there are different needs, goals, viewpoints, and information access in terms of tourism development.

The literature on community development has shown that there are often changes in the traditional economic base. Such phenomenon happens with the modern dominant economic sector, such as tourism, focusing on community development realm. As a result, scholars recognize tourism as the essential development strategy to alleviate poverty in local communities (Andereck et al., 2005; Blackstock, 2005; Croes & Vanegas, 2008; Gutierrez, 2022; Khan et al., 2020; Musavengane et al., 2019; Shen et al., 2008). However, it is important to note that tourism development can lead to positive and negative changes in the livelihood in the destination areas as well as bringing a new income source to the destinations. The local people are the primary stakeholders who will be most negatively or positively affected by tourism planning and development activities. Studies in sustainable tourism have highlighted the impact of local communities engaging in tourism and it has also been perceived as a tool to contribute to community development (Anderson, 2015; Bowden, 2005; Croes & Vanegas, 2008; Khalid et al., 2019; Matiku et al., 2020; Mensah & Amuquandoh, 2010; Roxas et al., 2020; Strejmikiene et al., 2020).

1.2.1 Tourism and Community

The involvement of various stakeholders to support tourism development is essential (Hanafiah et al., 2019; Kurniawan et al., 2016). Besides, tourism business as the core stakeholders, the local communities have been seen as one of the parts of maintaining sustainable developments since they are directly impacted by tourism development and activities (Nunkoo & Ramkissoon, 2011; Wiarti, 2019). Wu and

Pearce (2014) mentioned that tourism is a medium of change and crucial to the economic development potential to narrow the gap between rich and poor of the local community. The presence of tourism development leads to the improvement of local's economic growth, welfare, resources, culture, image, and national identity (Purnomo et al., 2020).

Undoubtedly, the poor and rural communities have been targeted as central to sustainable tourism development (Chamidah et al., 2020). Poverty eradication remains an important agenda today and is one of the key indicators of the Millennium Development Goals (MDGs) and the Sustainable Development Goals (SDGs), especially for the lower-income communities (Kandpal et al., 2023). Thus, development agencies and national governments have developed or adopted a variety of instruments and techniques for constructing development interventions, such as approaches to sustainable livelihoods, direct financial support, governance, and right-based approaches. Nevertheless, increasing tourism brings further challenges for sustainable community development (Leyh, 2018) especially for rural communities thus, the relationship between community livelihood and sustainable livelihood is too broad to explain.

The most prevalent tourism developments in rural destinations are marine and coastal tourism (Ferreira et al., 2009; Mat Som & Badarneh, 2011; Rozaki et al.,2025). Notably, the demand for marine and coastal tourism outpaced that of other forms of tourism products (Lee at al., 2015; Lowe & Tejada, 2019) and among the top tourism products worldwide (Miller, 1993; Rangel-Buitrago et al., 2019). In 2017, marine and coastal tourism alone constituted a substantial portion of the tourism sector and provided industrial fishing with more than six million employments (Tegar and Gurning, 2018). It also serves as a promising alternative for economic development among the marine and coastal industries and was identified as a possible avenue for their sustainable development. In addition, coastal destinations are quickly becoming crucial components for ecosystem-based approaches to sustainable tourism management as well as key tools for marine conservation (Abecasis et al., 2013; Chae et al., 2012). The relationship between coastal and marine industries can be seen from the development of the tourism infrastructure such as lodging, restaurant services, marinas and other economic activities which promote income generation to the local economy, producing jobs that allow coastal tourism to propel locals out of poverty and

into better financial conditions (Archer & Fletcher, 1996; Selamat et al., 2016; Sulaiman et al., 2018).

Despite the potential of tourism for economic growth of these destinations, tourist destinations such as marine and coastal are facing sustainable tourism challenges (Dluzewska & Giampiccoli, 2020; Figueroa & Rotarou, 2021; Hall, 2010; Partelow & Nelson, 2020). Hall (2010) contended that the distinctive features of the small islands as well as marine and coastal destination, such as locations, vulnerability, fragility, external dependency, social isolation, remoteness and limited economic activities have put the destinations at risk. These destinations have limited and fragile resources that are intricately linked. While tourism can be an economic development opportunity for many traditional marine and coastal communities, it also puts pressure on their scarce and limited local resources as well (Ghosh, 2012). This eventually threatens their traditional livelihoods and local culture (Fabinyi, 2010). On top of that, Su et al. (2016) claimed that in some cases, tourism development would lead to environmental and social culture degradation (Cheng et al., 2013; Conlin & Baum, 1995).

Several studies have reported that community livelihood in marine and coastal tourism destinations and sustainable livelihood can be achieved through the holistic economic development concept (Astuti et al., 2025; Bakar & Wall, 2019; Fabinyi, 2020; Phelan et al., 2020). In relation to marine and coastal tourism development, the Blue Economy has been introduced to optimize the benefits of natural resources, culture, and humans and is used as a framework for sustainable development (Tegar & Gurning, 2018). According to the United Nations in their report, maritime or ocean-related tourism as well as coastal tourism, are considered vital sectors of the economy in Small Island Developing States (SIDS) and coastal Least Developed Countries (LDCs). For many small developing countries, including most Small Island Developing States, tourism is a major source of foreign-currency income, which can represent up to 90% of total exports (Bangwayo-Skeete & Skeete, 2021; Camara, 2022; Henseler et al., 2022). The countries promote the use of ocean resources to provide employment and income, with an emphasis on small-scale fisheries, tourism, and aquaculture to alleviate poverty and ensure food security, while pursuing investment in climate and environmental risk reduction measures for people and infrastructure (World Bank Report, 2017). It is proved that the economy of island tourism contributed to sustainable development in the context of community livelihood. Tourism is also identified as one

of the tools to increase the economic benefits to those countries by 2030 through sustainable management of fisheries, aquaculture, and tourism (UN DESA & World Resources Institute, 2019).

The Blue Economy introduced by UNWTO supports sustainable use of ocean resources for economic growth, improves livelihoods, provides jobs, and promotes ocean ecosystem health. Industries that fall under the blue economy include renewable energy, fisheries, maritime transport, tourism, climate change, and waste management. Blue economy concept is an opportunity to develop more economically and environmentally effective investments and businesses, to use natural resources more efficiently and in a more environmentally friendly way, to produce more efficient and cleaner systems that produce greater products and economic value, to increase labour uptake and the opportunity to benefit all stakeholders equitable use or to support sustainable development in marine and coastal tourism (Kaur, 2020; Tegar & Gurning, 2018). This concept replaces other economic perspectives which tend to be exploitative and environmentally destructive. The blue economy concept can be implemented as it covers all the elements of tourism destinations which include attractions, amenities, accessibility, human resources, image, and price. However, scholars have defined the concept of blue tourism in many ways such as oceans as natural capital, oceans as good business, oceans as a source of livelihoods, and oceans as a source of new wealth and a driver of innovation (Silver et al., 2015; Voyer et al., 2018).

Many coastal communities around the world rely heavily on the need to strike a balance between safeguarding marine biodiversity and ensuring long-term, direct access to ecosystem services. Healthy coastal ecosystems support livelihoods and guard against natural hazards such as coastal erosion and increasing sea levels, especially in small island developing states. Therefore, Phelan et al. (2020) contended that the Blue Economy has made significant strides toward closing the gap between livelihoods and ocean health. In line with that, blue tourism has been presented to expand the overlap between the Blue Economy and marine and coastal tourism. This concept is a sustainable alternative to typical coastal and maritime tourism destinations (World Bank Report, 2022).

1.2.2 Malaysia as Study Setting

Marine and island tourism development in Malaysia has been increasing in recent years due to its vast coastline and diverse marine ecosystem. Malaysia has several popular marine and island destinations, such as Langkawi, Tioman Island, Redang Island, and Perhentian Island, which attract both domestic and international tourists (Nawi et al., 2019). One of the potential benefits of marine and island tourism development in Malaysia is its contribution to the country's economy. According to the Ministry of Tourism, Arts and Culture Malaysia, the marine and island tourism sector generated a total revenue of RM4.4 billion in 2019 (Tourism Malaysia, 2020). This revenue was mainly generated from accommodation, food and beverage, and transportation services.

However, the development of marine and island tourism in Malaysia also brings some challenges and problems. One of the issues is its impact on the marine ecosystem and the livelihoods of the local communities who depend on it. For example, the overuse of coral reefs for recreational activities and the disposal of waste materials into the sea can have negative effects on the marine ecosystem and the livelihood of local fishermen (Bong & Law, 2018). Another problem is the issue of overcrowding during peak tourism seasons, which can lead to environmental degradation and affect the quality of tourist experience (Shuib et al., 2018). Moreover, the Covid-19 pandemic has also affected the tourism industry, including marine and island tourism, as the travel restrictions have led to a decrease in the number of tourists.

Malaysia is an ideal study setting for investigating the impacts of tourism development on community livelihood outcomes, particularly in marine and coastal destinations. In Malaysia, the importance of marine and coastal destinations cannot be overstated. The country has a vast coastline of over 4,000 km, and fishing is a crucial economic activity in many rural communities. However, as a developing country, Malaysia faces the challenge of balancing economic growth with sustainable development, especially in rural areas where the majority of the population resides. While tourism has the potential to bring economic benefits and improve the quality of life for local communities, it can also have negative impacts on their livelihood resources and overall well-being. As a result, the rapid development and growth in Malaysia's tourism industry have led to concerns about its impact on the livelihoods of

local communities. Sharpley (2002) notes that the process of tourism development in Malaysia may not always have positive outcomes for the most vulnerable parts of the community, which reinforces the need for a more comprehensive and integrated approach to sustainable development.

Therefore, an in-depth analysis of the interactions between tourism development and economic activities in marine and coastal destinations is necessary to develop effective management strategies that align with sustainable development goals. By examining how tourism development affects community livelihood outcomes based on their livelihood resources, policymakers can identify areas where they can support and strengthen sustainable livelihood policies to achieve development goals. In addition, studying the impacts of tourism development on these communities in coastal areas is vital to understand the complex interplay between tourism and the use of marine resources. Furthermore, these areas are often overlooked in terms of development policies and understanding how tourism can contribute to sustainable development is crucial.

1.3 Problem Statement

Marine and coastal destination are among the critical and popular tourism products globally. due to their unique natural assets such as beaches, coral reefs, marine biodiversity, and cultural heritage that attract large numbers of domestic and international tourists. Notably, this form of tourism development has served as a catalyst for the socioeconomic development of various island destination communities (Hanafiah et al., 2016; Praptiwi et al., 2021; Ramli et al., 2024). Likewise, it influences other sectors such as agriculture, fishing, forestry, livestock raising, food processing and handicraft, thereby creating diversified income opportunities which can contribute to the well-being of the whole community (Muresan et al., 2016; Su et al., 2019). Such development policies help to lift communities out of poverty and into better financial circumstances (Sulaiman et al., 2018). In addition, tourism development enhances the visibility and branding of destinations, besides helping the community to improve their quality of life (Xu et al., 2022).

Despite these benefits, empirical evidence shows that tourism development does not generate uniform livelihood outcomes for local communities. While some studies

report positive effects such as employment creation, poverty reduction, and improved living standards (Li et al., 2020; Sharpley, 2002), others highlight adverse consequences including livelihood displacement, rising living costs, socio-cultural disruption, and unequal benefit distribution (McClanahan et al., 2019; Sheller, 2021; Sirima & Backman, 2013). Recent studies further indicate that tourism growth in small island and coastal destinations often produces uncertain and uneven livelihood outcomes, increasing household vulnerability rather than reducing it (McNamara et al., 2020; Pasanchay & Schott, 2021; Suradja et al., 2024; Zhou et al., 2021). These mixed outcomes suggest that tourism development can simultaneously improve and undermine community livelihoods, depending on local context, livelihood structure, and adaptive capacity.

This issue is particularly pronounced in small island and coastal destinations, where communities are often highly dependent on a narrow range of natural-resource-based livelihoods such as fishing. Although tourism is frequently promoted as an alternative or supplementary livelihood, rapid tourism expansion can alter access to livelihood resources, increase living costs, and reduce the affordability of remaining in one's own community (Clay & Zimmerer, 2020; Fenner & Cernev, 2021; Nguyen et al., 2020). Such transformations may also contribute to the erosion of cultural identity and traditional livelihood practices. The COVID-19 pandemic further exposed these vulnerabilities, as tourism-dependent communities experienced sudden income loss, reduced food security, and heightened livelihood fragility (Gössling et al., 2021; World Bank, 2022). These challenges highlight the need to better understand how tourism reshapes livelihood sustainability rather than assuming uniformly positive outcomes.

Recent studies suggest that livelihood diversification—particularly through tourism-related and marine-based activities—can reduce dependency on declining fisheries and enhance household resilience in coastal communities (Bires & Raj, 2020; Praptiwi et al., 2021; Su et al., 2019). Within this context, the Blue Economy has gained attention as a framework that promotes diversified, sustainable use of marine and coastal resources while supporting community livelihoods (Phelan et al., 2020; Praptiwi et al., 2022). Community-based ecotourism (CBE), in particular, has been identified as a potential livelihood strategy that can generate supplementary income, build local skills, and strengthen community participation in destination development (Abukhalifeh & Wondirad, 2019; Rasoolimanesh et al., 2017; Su et al., 2018). However,

evidence also shows that limited skills, capital access, and livelihood diversity continue to constrain the sustainability of tourism-based livelihoods, making households vulnerable to external shocks (Huang et al., 2021; Fischer et al., 2021).

Although previous studies have examined tourism impacts, sustainable tourism practices, fisheries dependency, and livelihood frameworks separately, there remains a lack of integrated empirical understanding of how tourism development reshapes community livelihood assets, strategies, and sustainability outcomes within a multi-livelihood context, particularly in marine and coastal destinations. Existing research often reports mixed or indifferent tourism impacts without sufficiently explaining how different livelihood assets are affected or how communities adapt through diversified livelihood strategies. Moreover, while the Sustainable Livelihood Approach (SLA) has been widely applied to assess livelihood conditions, it has been less frequently integrated with emerging concepts such as the Blue Economy to examine multi-livelihood sustainability outcomes in small island settings. As a result, the mechanisms through which tourism and marine-based livelihood diversification interact to enhance or undermine community livelihood sustainability remain insufficiently understood.

In response to these gaps, there is a need for empirical investigation that examines tourism development through a livelihood-based lens, focusing on how community livelihood assets are affected, how livelihood strategies evolve, and how sustainable livelihood outcomes can be enhanced through diversified approaches such as the Blue Economy. Using the Sustainable Livelihood Approach as an analytical framework, this study seeks to contribute to a deeper understanding of multi-livelihood sustainability in marine and coastal destinations, particularly within the Malaysian small island context.

1.4 Scope of Study

The study focuses on selected location and population which is small island (Pangkor Island, Perak) and its local communities. The choice of location is due to tourism's central role in driving economic growth and sustainable development, particularly after Pangkor was gazetted as a duty-free island in 2020 (Manjung Municipal, 2020). According to the 2020 data, Pangkor Island is a small island covers 18 square kilometres and projected around RM662 millions of GDP in 2019, and it has

created tourism as a core development focus of the island, yet there is untapped opportunity to create more adjacencies and synergies with other economic activities such as fisheries, wholesale and retail, commerce, and boat building. It is shown in Figure 1.

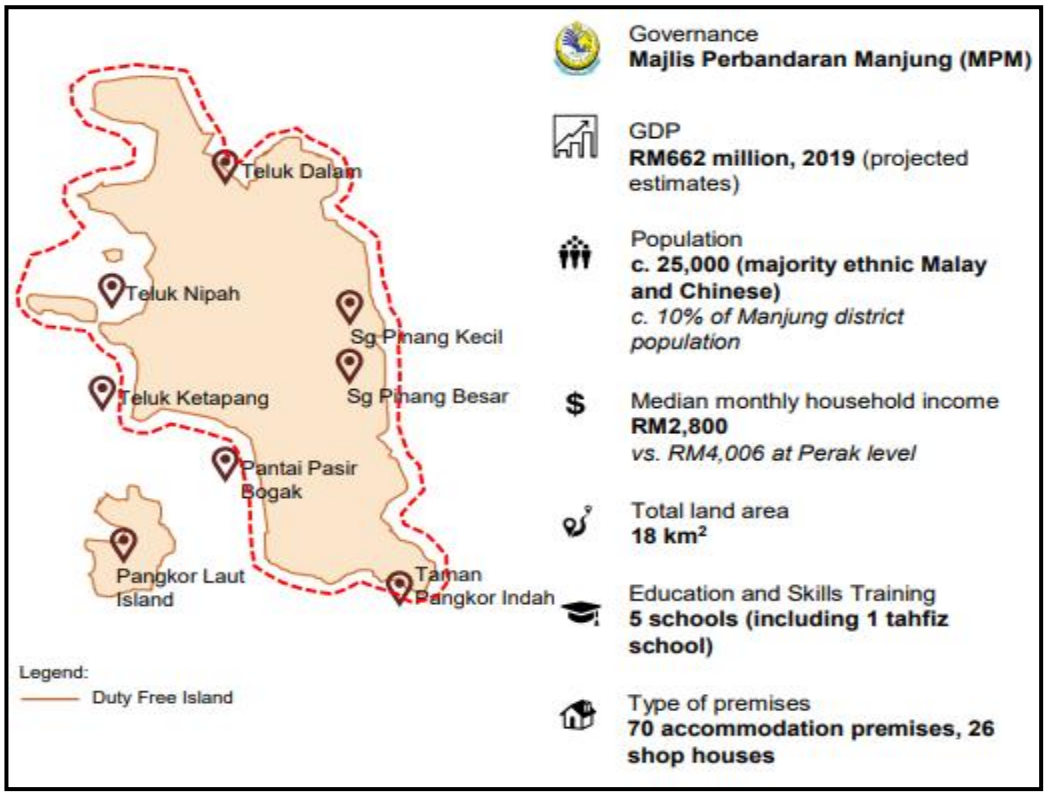


Figure 1.1 Key Economic of Pangkor Island
Source: PWC (2020)

In this context, it is critical to understand the local perceptions and how their engagement in tourism' economic impacts on Pangkor Island to ensure effective tourism development on this area (Noor et al., 2022). Local participation is a key component of long-term tourism viability, offering valuable insights into the opportunities and challenges faced by small island destinations (Sulaiman et al., 2017). While Pangkor's economy shows potential synergies with other sectors such as fisheries, retail, and bait building, this study remains bounded to understanding tourism's role in shaping community livelihoods and providing context-specific insights for small island policy and planning.

Currently, Pangkor Island experiences rapid tourism growth alongside challenges such as uneven development, resource pressures, and social changes

affecting the local community. These issues raise concerns about the sustainability of livelihoods dependent on tourism. Additionally, existing policies on tourism and coastal resource management are evolving but may lack integration with local needs and Blue Economy principles. These conditions highlight the need for an in-depth study on how tourism affects livelihood assets and strategies, and how a multi-livelihood approach within the Blue Economy framework can enhance community resilience and sustainability.

Therefore, Pangkor Island serves as an ideal case study, representing the challenges and opportunities faced by many small island destinations globally, where tourism is both an economic lifeline and a source of socio-environmental pressure. The findings will be relevant locally and for other island communities seeking sustainable livelihoods aligned with Blue Economy goals.

1.5 Research Objectives

This research primarily aims to develop a comprehensive sustainable livelihood model for small island tourism projects in the context of marine and coastal destination in Pangkor Island, Malaysia through the Blue Economy concept. The Blue Economy promotes sustainable economic growth by balancing the development of marine and coastal resources with environmental conservation and community well-being. It encourages diversification of livelihoods, inclusive governance, and resilience building to ensure long-term sustainability of marine ecosystems and dependent communities. By developing a framework for the sustainability of this important livelihood, a potential framework for the island that is applicable to other island destinations within the country and elsewhere (island destinations with the same condition) will also be introduced. Therefore, to achieve these aims, the following specific objectives were identified:

RO1: To explore stakeholders' perspective of how current tourism development policy on Pangkor island affect the island's community livelihood assets.

RO2: To investigate stakeholders' perspective of the potential changes in developmental policies in support of the Pangkor Island community's livelihood strategies and their livelihood outcomes.

RO3: To develop multi-livelihood strategy through the Blue Economy concept in enhancing the Pangkor Island community's livelihood strategies and their livelihood outcomes.

1.6 Research Questions

To refine the statement on the problem raised, the research questions are developed as guidelines to achieve the objectives of the study. Therefore, the research questions are as follows.

RQ1: What are the stakeholders' perceptions of how the current tourism development policy on Pangkor Island affect the island's community livelihood assets?

RQ2: What are the stakeholders' perceptions of the potential changes in developmental policies in support of the Pangkor Island community's livelihood strategies and their livelihood outcomes?

RQ3: How would multi-livelihood strategy through the Blue Economy concept enhances the Pangkor Island community's livelihood strategies and their livelihood outcomes?

1.7 Significance of the Study

1.7.1 Academic Perspective

The significance of the present study discussed in two perspectives which are academic and practical. From the academic perspective, it can be highlighted that the findings of the current research contributed to existing body of knowledge and provide new insights on sustainable tourism and livelihoods through Blue Economy concept and how it can be applied to create sustainable livelihood opportunities for coastal communities that rely on the ocean for their livelihoods. While the SLF traditionally emphasizes five core assets (human, social, natural, financial, and physical), it has been critiqued for its descriptive nature and limited capacity to address the complexities of marine-based economies. This area of research explored the interlinkages between

sustainable tourism, livelihoods, and the Blue Economy concept, which advocate for sustainable economic activities that promote the conservation and sustainable use of the world's oceans, seas, and coastal areas. Moreover, a series of engagements and comprehensive studies undertaken to ensure the rural marine and coastal community livelihood framework outline the immediate actions to be undertaken by relevant ministries and agencies such as Tourism Perak and Manjung Municipal Council specifically in developing more constructive and effective strategies for maintaining the socio-economic environment to ensure a sustainable development of island tourism in the long run.

Additionally, the study provides useful information on the current living conditions of the local communities, especially for fishery communities and tourism operators in providing stable means of support and improving quality of life through the qualitative method. The Sustainable Livelihood Framework (SLF) is designed subjectively due to the nature of the destination. Therefore, through a qualitative approach it gives better and new insight of the current study especially in sustainable livelihood and its interlinkages with Blue Economy principles. To achieve sustainable livelihoods based on a mix tourism and other activities, it is necessary to first gain an understanding of local livelihoods hence positive impacts of tourism can be maximized while the negative ones are mitigated. Besides, the study gives add value to new knowledge particularly in livelihoods context focusing on marine and coastal destination and provides an insight into factors that hinder the community's ability to sustain its livelihood through the sustainable livelihood approach (SLA). The sustainable tourism and livelihoods trough the Blue Economy concept is a vital area that can contribute to the development of more sustainable and equitable tourism practices that promote economic growth while also protecting the environment and supporting local communities.

1.7.2 Practitioner Perspective

Likewise, the findings and the model of the study contribute to practitioner perspective that enable tourism market players and decision-makers on policies related to small island community such as Pangkor Island to pay attention to community empowerment which will lead to sustainable livelihoods in line with B40 Action plan

and The Twelfth Malaysia Plan (12MP) in achieving the 2030 Agenda by formulating proper strategies and policies to optimize the benefits of tourism development. Community livelihood improvement can be achieved through the progressive introduction of government incentive programmes and development strategies in marine and coastal destinations. Besides that, the findings equip and expose the local community with further knowledge on maintaining their livelihoods, and how they can meet their needs and desires in the development process of the destination such as diversifying the economy by supporting other sectors such as marine innovation enterprise, fostering community involvement and empowerment. Careful planning and management help to develop sustainable livelihoods in marine and coastal tourism destinations that are resilient, inclusive, and environmentally responsible.

Furthermore, it provides tourism planners and official authorities with better understanding of the local community's tendency to support the most preferred tourism development options and promoting sustainable livelihoods in the context of Blue Economy. Moreover, the findings of this study practically useful because the success of any tourism project may jeopardize if it is designed and built without the understanding and support of the host population. It is also possible to identify the most effective strategies for promoting sustainable tourism and livelihoods through the Blue Economy concept.

1.8 Operational Definition

This section highlights the definition of key terms that used in the context of this study:

1.8.1 Tourism Development

Tourism development could trigger economic, social, and environment both positive and negative impacts within the local community (Rivera et al., 2016).

1.8.2 Sustainable Tourism

Refer to the application of sustainability concept at the level of the tourism industry and consequent social, environment, and economic effects (UNWTO, 2017).

1.8.3 Sustainable Livelihoods

A livelihood comprises the capabilities, assets, and activities required for a means of living, while a sustainable livelihood will mean the ability to cope with current livelihood and at the same time, able to provide sustainable livelihood opportunities for the next generation (Chambers & Conway, 1992).

1.8.4 Sustainable Livelihood Framework

Sustainable Livelihood Framework is a suitable tool for analyzing livelihoods in this study because it links the broader socio-economic components of household assets, livelihood activities, outcomes of livelihoods activities, and factors mediating access to livelihood activities (Farrington et al., 2004).

1.8.5 Marine and Coastal Tourism

Marine and coastal tourism is one of the leading contributors to growth of the tourism sector and is gradually growing in both demand and supply. Marine tourism mostly takes place at sea for example a cruise and sailing activities while coastal tourism takes place in coastal areas that include beach-based tours and recreational activities, such as swimming and sunbathing, coastal walks, and resorts (Rangel-Buitrago et al., 2019).

1.8.6 Blue Economy

Blue Economy refers to sustainable and integrated development of economic activities in healthy oceans. It refers to sustainable use of ocean resources for economic growth, improved livelihoods and jobs, and ocean ecosystem health (World Bank Group, 2017).

1.9 Organization of the Study

In summary, chapter one established the issue statement based on previous literature as a foundation of the research and the existing condition in Pangkor Island,

as the study site. Following that, the research objectives and questions were stated. The significance and the scope of study were discussed. The operational definition is outlined based on the main topic of the study.

Chapter two analysed and synthasized the existing literature concerning the topic of the study. The chapter begins with the overview and discussion of the tourism industry, and tourism development in marine and coastal destinations specifically in Pangkor Island as a study setting. The systematic literature review was identified to fill the gaps focusing on the sustainable livelihoods in tourism studies and in marine and coastal development in Malaysia. Finally, the chapter presents the supporting theories, applications of the theories to the study and the formation of the conceptual framework.

Chapter three explores and discusses the research methodology that are relevant to the study, consisting of research design, research setting, population and sampling, the interview procedure, data collection and the stages of in-depth interview, data analysis and interpretation employed and undertaken in this study.

1.10 Chapter Summary

This chapter explained the tourism industry as a whole and integrate the tourism practices as well as sustainable tourism development in the context of marine and coastal destination. It also explained how tourism development is able to influence the local community livelihood through the implementation of the blue economy concept. In a nutshell, sustainable community livelihood is necessary for the long-term existence of the local people. Without sustainable practices, there is a potential of ecological damage, creating environmental deterioration, and jeopardizing future generations' livelihoods. In the context of tourism, the blue economy may be a significant instrument for improving sustainable livelihoods by providing possibilities for local communities to participate in ocean-based activities and benefit from tourism.

One of the practices is to reinvest in blue economy which supports and emphasizes the importance of marine protected areas, sustainable fisheries management, and coastal tourism facilities that employ renewable energy. It would be able to foster economic progress while simultaneously conserving the environment and local community’s livelihoods. Additionally, sustainable lifestyles may be promoted through training programmes that focus on sustainable tourist practices, conservation

strategies, and responsible marine resource management. These initiatives may produce income and employment for local communities while simultaneously supporting marine resource conservation and environmental protection. It therefore leads to the development of this research objective that focuses on Pangkor Island in Perak as the scope of study. The significance of study is also explained by focusing on both perspectives, academic and practical.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter reviews in detail the literature based on the highlighted variables and continued by the concept and theory of the study. It begins by reviewing a general view on the tourism industry in Malaysia particularly marine and coastal tourism as well as the tourism development in such destinations. Next, past studies related to sustainable livelihood and the relation with tourism studies also discussed to strengthen this study. Furthermore, the detailed explanation of the gaps in the literature which contribute to the purpose of this study is highlighted. Towards the end of the chapter, the relevant literature that focuses on the development of conceptual framework, and all the variables related to the purpose of the study is discussed.

2.2 Tourism Industry

Tourism is one of the fastest growing industries in the world and a major source of income in many countries, especially in developing countries. Economic growth from tourism may also occur through foreign exchange and the increase of income of people in a tourist destination (Dahles & Bras, 1999; Noor et al., 2022). A reasonably robust global economy, expanding middle classes, increased urbanisation in emerging nations, accessible travel, easier access to visas, as well as technical advancements and innovative business models, all contributed to the growth of tourism (UNWTO, 2021). According to World Travel and Tourism Council (WTTC) (2022), prior to the pandemic of Covid-19 the industry including direct, indirect, and induced effect accounted for one-fourth of all new jobs produced globally, 10.3 percent of total jobs (333 million), and 10.3 percent of global GDP equivalent to 9.6 trillion dollars. Meanwhile, in 2019 expenditure by international visitors was 1.8 trillion dollars with 6.8% of total exports. However, in 2020 the industry dramatically changed their momentum for employability where 2 million jobs were lost indicating an 18.6 percent decrease leaving only 271 million employed globally.

The recent report by UNWTO highlighted that tourism continues to bounce back from the pandemic estimated 700 million tourists travelled globally more than double +133 percent the amount recorded for the same period in 2021. According to UNWTO (2023), Middle East experienced the fastest rebound, with arrivals reaching 83 percent of pre-pandemic numbers whilst Europe being the second leading tourist destination with 585 million tourist arrivals. For Asia-Pacific, South Asia and South-East Asia showed robust results in terms of overall competitiveness. The shift in key trends represents greater opportunities for developing economies and creates avenues to develop niche areas such as coastal tourism, medical tourism, and rural tourism.

Despite the outstanding growth and changes, the development also triggers economic modernization which contributes to job formation, economic enhancement by multiplier impact, increased local business feasibility, transformation, and reconstruction of markets in communities where traditional sectors are shrinking, and encouragement of inward investment (Connell & Page, 2009). Economic growth, weather conditions, missing financial costs and low-paid employment are among the causes that have harmful consequences (Andereck et al., 2005). These economic transformation processes could lead to advancement of societies among individuals, and study has also centered on the negative impact of tourism on communities, including changes in belief structures, individual actions, personal relationships, group behaviours, cultural traditions, or community organizations (Cheer et al., 2019; Kristiana et al., 2021; Milman & Pizam, 1988; Prideaux et al., 2020).

2.3 Tourism in Malaysia

Malaysian tourism growth gained traction only after the Pacific Asia Travel Association (PATA) Conference in Kuala Lumpur in 1972 (Marzuki, 2010). It educated Malaysian government and people about tourist potential hence in 1972 the government established the Tourism Development Corporation (TDC) to have a better recognition of the industry and followed by the completion of the National Tourism Master Plan in 1975 (Mustapha & Azman, 2013). The Ministry of Culture and Tourism was established in 1987 and it was then expanded into the Ministry of Tourism, Arts, and Cultural (MOTAC) in 1990. Later in 1992, the Malaysia Tourism Promotion Board (MTPB) was established to replace the Tourism Development Corporation (TDC) and

was placed under the supervision of MOTAC (Mariapan et al., 2015). Then finally in 1992, the Tourism Development Corporation was changed to Tourism Malaysia. Malaysia has promoted actively by the MTPB as a tourist destination to the international market (Ser, 2020). The slogan "Malaysia Truly Asia" became a brand for Malaysia's tourism promotion and several overseas' branches of MTPB were opened in many countries. The campaign was deemed remarkably successful over the past 20 years, as the country experienced consistent and tremendous growth in tourist arrivals each year.

Malaysia's tourism industry remains a vital economic sector, contributing 15.1% to GDP in 2024 and generating RM291.9 billion in revenue. It attracts millions of tourists annually due to its cultural diversity and affordable travel options. Inbound and domestic tourism expenditures grew significantly in 2024, supporting 3.5 million jobs and demonstrating the sector's strong role in Malaysia's economic growth (DOSM, 2024; Ghazvini et al., 2020; Mahadzirah, 2017; Tourism Malaysia, 2021).

The increase of tourism demand has resulted in an increase of tourism related industry as well. Besides, low foreign exchange, political stability, variety of food, and historical background from different cultures and ethnicities are the fundamental that make Malaysia a major tourist destination (Selamat, 2016). In addition, Tourism Malaysia (2021) stated that the top contribution of Malaysia's international tourist arrival is from ASEAN countries such as Singapore, Indonesia, China, Thailand, India, Brunei, South Korea, Japan, Australia, and Vietnam, equivalent to 61.8%. Stunning islands and beaches including Redang, Langkawi, Tioman, Kapas, Perhentian, Sipadan and Pangkor have significantly contributed to attracting tourist to visit Malaysia (Hassin et al., 2019). As a result, island tourism expanded quickly in recent years and is currently one of the most well-liked forms of tourism (Zhang et al., 2020). Furthermore, Malaysia has recognised tourism as a source of revenue and a tool for a long-term development. Despite its emphasis on economic development, Malaysia has made local community development through tourism a priority. The Malaysian government has developed several new tourism products concentrating on nature-based tourism or ecotourism to encourage local community development (Kunjuraman, 2022b; Kunjuraman, 2022). With the new launched of National Tourism Policy 2020-2030, it will strengthen the country to be more competitive by increasing revenue, securing partnership and investments, empowering local communities, and ensuring the sustainability and

resilience of the industry. The agenda also reinforces the sustainable development of tourism island and coastal tourism by preventing over-tourism.

2.4 Marine and Coastal Tourism

Among the most popular tourism developments in rural destinations are marine and coastal tourism (Ferreira et al., 2009; Mat Som & Badarneh, 2011). Marine tourism mostly takes place at sea and includes cruise and sailing activities. In contrast, coastal tourism takes place in coastal areas that include beach-based tours and recreational activities, such as swimming and sunbathing, coastal walks, and resorts (Tegar & Gurning, 2018). Marine and coastal tourism are among the top tourism products worldwide and one of the dominant attractions of the industry (Miller,1993; Mulyawati et al., 2023; Phillips & House, 2009; Rangel-Buitrago et al., 2019), representing a significant share of the tourism industry and supporting more than six million jobs to industrial fishing (Roberts & Ali, 2016). Backpacking, camping, eco-tourism, fishing, seawater kayaking, scuba diving, snorkeling, and other island tourist activities are categorised as a soft type of adventure tourism by the UNWTO report released in 2014. The concept of coastal tourism includes essential tourism and leisure activities within the coastal zone and offshore coastal waters. Marine and coastal tourism serves as a promising alternative for economic development in the face of struggling limited primary industries and is identified as a possible avenue for sustainable development as they are interconnected and depended on the sea and the marine environment.

In relation to marine and coastal tourism development, the Blue Economy has been introduced to optimise the benefits of natural resources, culture, and humans through sustainable development (Tegar & Gurning, 2018). Many researchers claim that community livelihood in marine and coastal destinations and sustainable livelihood can be achieved through the blue economy (Chen et al., 2023; Praptiwi et al., 2021). According to the United Nations in their report, maritime or ocean-related and coastal tourism are vital sectors of the economy in small island developing States (SIDs) and coastal least developed countries (LDCs). Tourism is a major source of foreign-currency income for many small developing countries, including most SIDS, representing up to 90% of total exports. It is proved that the economy of island tourism contributed to sustainable development in the context of community livelihood.

However, owing to a limited capacity of the island in terms of environmental, social, economic, or perceptual aspects make it fragile and unsuitable for tourism activities depending on natural and human resources, in which may result in serious environmental and social imbalances, and economic mono-specialization on destination (Navalón-Garcia, 2017). Additionally, Shaw and Williams (1994) claim that although tourism has positive impacts on island society, it is likely to have an adverse effect on the host community. The development and planning should be designed not only to attract tourists but also to benefit the economic growth among the local communities. Many scholars contented that tourism was uncertain approach in this destination, while others agreed that many governments and analysts treated tourism as a key potential livelihood strategy for islands and coastal regions with the ability to improve the living standard and reduce pressure on the coastal areas (Fabinyi, 2020) as well as income generation for many rural coastal and marine communities (Aref, 2011; Karani & Failler, 2020; Kimbu et al., 2022; Rahman et al., 2021; Robinson et al., 2019)

Tourism development is crucial for the sustainable livelihoods of residents, particularly in developing countries, and it is recognized as a tool to increase economic benefits by 2030 through sustainable management of fisheries, aquaculture, and tourism (UN DESA & World Resources Institute, 2019). The Mohonk Agreement (2001) described marine tourism as closely linked to sustainable tourism, which aims to minimize environmental and socio-cultural impacts while providing economic benefits to local communities and host countries (Sulaiman et al., 2018). As a result, tourism has been utilized for rural economic development in terms of employment, income distribution, and tourism activities (Chatkaewnapanon et al., 2017). However, these tourism activities within local communities can have a direct impact on local people and their livelihoods (Su et al., 2019). However, tourism activities often lead to environmental and socio-cultural degradation (Cheng et al., 2013; Conlin & Baum, 1995). Su et al. (2016) noted that tourism can have both positive and negative effects on tourist destinations. While tourism can provide an economic opportunity for traditional fishing communities, it can also put a strain on limited local resources and threaten local culture and traditional livelihoods (Fabinyi, 2010; Ghosh, 2012). Evidently, Porter et al. (2015) argues that coastal fishing communities can decrease their reliance on fisheries by introducing tourism as an alternative source of income.

Therefore, community sustainability in tourism development is essential to improve the socio-economic and local livelihoods, especially in rural areas (Ma et al., 2021).

2.4.1 Marine and Coastal Tourism in Malaysia

Tourism is Malaysia's primary economic sector, with enormous contributions to the country's economic growth (UNWTO, 2018). Due to the abundant marine resources, beaches and islands are among the main attractions for Malaysia's coastal recreation tourism (Alam & Paramati, 2016; Balong, 2004; Yusoff et al., 2006). Specifically, Malaysia has more than 20 beaches and islands that offer sun, sea, and sand activities such as parasailing, scuba diving, jet-skiing, kayaking and many more (Kammed, 2014). Besides, Malaysia has one of the richest marine resources and coral reefs in Southeast Asia contributing to the livelihood and sustenance of the people (Kaur, 2020). This feature constitutes an important tourist attraction that stimulates economic growth (Jaafar & Maiden, 2012; Tahir, 2008; Vasanth, 2005). Furthermore, fisheries sector contributed 3.4 percent to the Malaysia gross domestic product (GDP) in year 2009. In line with that, marine and coastal tourism are among the leading contributors to growth of the tourism sector in Malaysia and are gradually growing in both demand and supply (Sulaiman et al., 2017). Given the important role of rural marine and coastal destination development in Malaysia in sustaining the living condition of the community, the current study is centred on island tourism environment due to the growing popularity of the destination to meet the sustainability livelihood of the local communities.

Although previous research has recognized the potential benefit of tourism development to local communities while promoting sustainability, limited attention has been paid to the specific context of marine and coastal destinations in Malaysia. In order to fully understand the potential impact of tourism on local livelihoods, further research is needed to examine the specific challenges and opportunities faced by these communities. As noted by Mohamad et al. (2018), sustainable tourism development in Malaysia's marine and coastal areas requires a comprehensive understanding of the diverse stakeholders and the complex socio-ecological systems in which they operate. Recent studies have highlighted the importance of community participation and empowerment in promoting sustainable tourism development in Malaysia's marine and

coastal areas. For example, Ismail et al. (2021) emphasize the need for community-driven initiatives that prioritize local perspectives and promote the long-term sustainability of marine tourism destinations. Similarly, Mohamad et al. (2018) stress the importance of community-based tourism development that considers the cultural and social values of local communities and fosters their active involvement in the decision-making process. Perhaps, by prioritizing community participation and empowerment, sustainable tourism development can promote the long-term viability of both local livelihoods and natural resources.

2.4.2 Pangkor Island

Pangkor Island, known as Pulau Pangkor, is an island located in Northwest Malaysia in the state of Perak (Figure 1.). The origin name of the island is derived from the Thai phrase “Pang Ko” which means the “beautiful island” and has an approximate population of 22,000 people. Pangkor is made up of nine islands including Pangkor Laut, Pulau Mentagor, Pulau Giam, etc. and it is well-known among the local communities for its beaches like Teluk Nipah, Coral Bay, Pasir Bogak and Teluk Belanda. It has a total land of 18km^2 with a population of 25,000 where Malay and Chinese are the ethnic majority (Manjung Municipal, 2020). Pangkor Island was included in the top nine "sustainable tourism" attractions in the state of Perak according to Hengky, (2011). Hengky (2011) considered the environment, social-economic, and policy response factors in his "sustainable tourism" evaluation. In 2020, the Gross Domestic Product (GDP) of the island was estimated to be RM649 million and envisioned to be a RM787 million economy with RM29,749 GDP per capita by 2025 (DOSM, 2021). However, with the Covid-19 impacting global economy, it is expected to delay initial target between 2 to 3 years.

Additionally, the fisheries sector in Pangkor Island is an important source of income contributing 12.94 percent to the fisheries sectors in Malaysia, and local livelihoods of the island had been dominated by this activity (Department of Fisheries of Malaysia, 2021). Besides, it has also contributed widely to foreign exchange, income, and national Gross Domestic Product (GDP) (Menhat et al., 2021) to create job opportunities for the local citizens and providing a source of fishery products, export and import activities. The island has landed 314,957 tonnes of total fisheries worth

RM2.93 billion, which made Perak the biggest contributor to Malaysia's fisheries sector, and constitutes 90 percent of South Manjung district's output (Department of Fisheries of Malaysia, 2021).

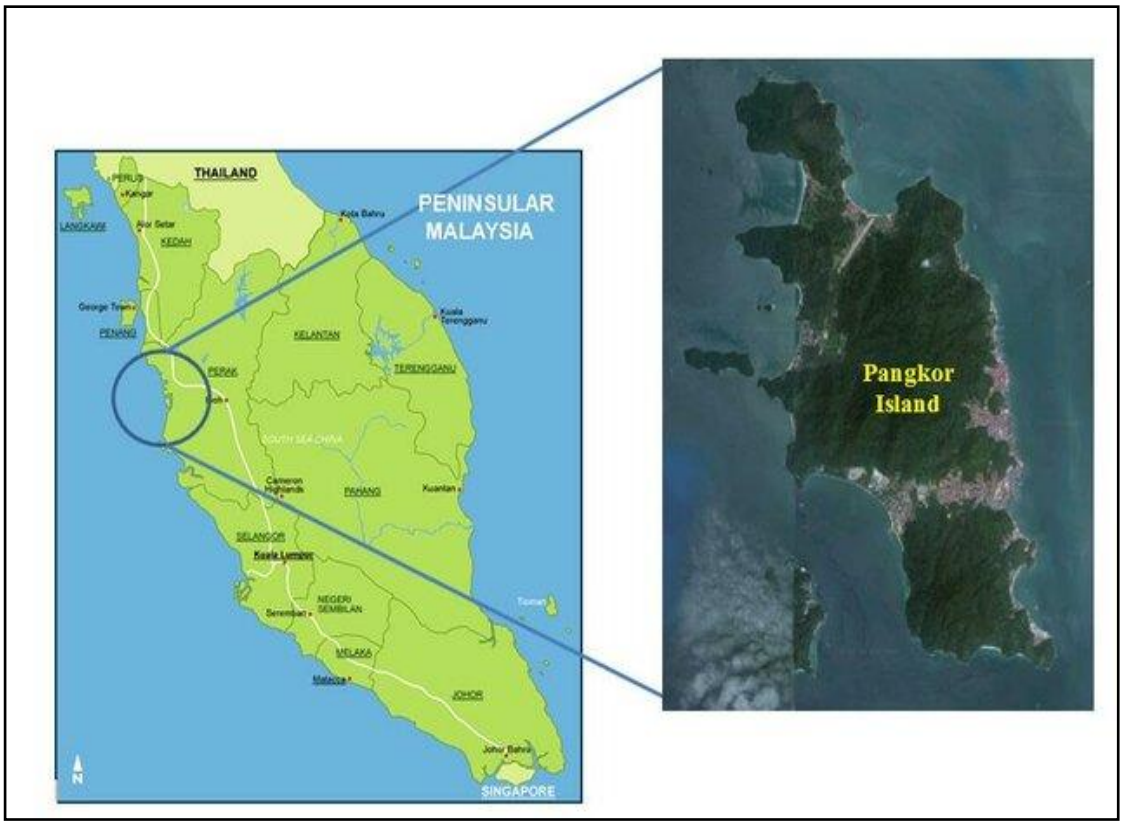


Figure 2.1. Geographical Location of Pangkor Island in Peninsula of Malaysia

Source: http://www.malaysia-maps.com/

Additionally, in 2014, there were a total of 897 registered fishermen in Pangkor Island, consisting of 198 Chinese, 635 Bumiputras and 64 Indians (Fishermen Association of Pangkor Island, 2014; Ho, 2019). Although the fishermen villages are scattered around the bays, the majority are found in Teluk Dalam, Sungai Pinang Kecil, Sungai Pinang Besar and Teluk Gedung. Therefore, 'ikan bilis mata biru' (blue eyes anchovies), squids and other dried fish items are the island's most renowned local products, and they are irresistible to the local communities and tourists alike. Although tourism has been the key development focus of Pulau Pangkor, its economy is driven by other sectors such as fisheries, wholesale and retails, commerce and boat building. This is because the island's tourism attractions are restricted to sightseeing, and there is

no overall destination branding as other islands such as Langkawi Island (naturally Langkawi), and Labuan (heart of biodiversity) (PricewaterhouseCopper Advisiory Service (PWC) (2020). To summary, Table 2.1 illustrate the marine and coastal tourism that are available in Pangkor Island.

Table 2.1
Marine and Coastal Tourism Available in Pangkor Island

Area	Activities/tourism product	Location
Marine	Fisheries	Teluk Dalam
	Handicraft	Pangkor Town
	Food services	Teluk Nipah
Coastal	Snorkeling	Teluk Nipah
	Boat riding	Pasir Bogak
	Jet ski	

Source: Researcher Preliminary Visit

Pangkor is a tourism island and has been involved in developing this industry since the 1970s. Since then, it has undergone various policy making and tourism development. However, most population in the island is not directly involved in the tourism sector (Department of Fisheries of Malaysia, 2021; Mapjabil et al.,2022). In January 2020, the island has officially become a duty-free destination to spur the island's economic growth and enhance its attractiveness as a premier sustainable tourism destination (Nothern Corridor Economic Region, 2022) as well as to make the island well-positioned to contribute to the region's socioeconomic development. The duty-free island initiative was announced in the Prime Minister's tabling of the Federal Budget to parliament in 2018. In addition, according to NCER the future development of the island will leverage its unique strengths including:

i. Proximity to Kuala Lumpur and its location within the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT).
ii. Richness in biodiversity and abundance of natural terrestrial and marine resources.
iii. Unique cultural heritage which includes fishing villages, fisheries, and colonial British and Dutch history

Accordingly, the Northern Corridor Implementation Authority (NCIA) is leading initiatives in Pangkor Island to build and support tourism enterprises based on green technological resources. In Malaysia, tourism planning and development is traditionally top-down. It starts with national goals and works to implement them at the local level in order to produce income and contribute to the local community's economy. This comprises Pangkor Island physical planning zone, which focuses on Pangkor Island, Pangkor Laut, and Pulau Gagasan Sembilan (Saad et al., 2014). Pangkor Socio-Economic Development Strategy is also available and the construction of Marina Island Pangkor as an alternative to the Lumut jetty has increased the number of tourists visiting the island. As a result, rapid tourism development in the island has undoubtedly had an impact on the communities. Below are the example development strategies of Pangkor Island according to Manjung Municipal office. These strategies to enhance the island to be an international

Table 2.2
Development Strategies of Pangkor Island

Strategies	Focus	Remark
Rancangan Struktur Negeri Perak 2040	• Planned development and maritime tourism in Lumut - Sitiawan - Seri Manjung. 1. Eco-tourism (coastal) and heritage development	Pangkor Island as world class island
Rancangan Tempatan Daerah Manjung 2030	Pangkor Island as Duty-free	Tourism Zone: i. Island and coastal ii. Heritage iii. Eco-tourism iv. Sports

		and recreation v. Sailing
Rancangan Daerah Manjung 2002-2015	NA	
Rancangan Tempatan Pulau Pangkor 1999-2015	Allocated RM50,600,000 for the development of infrastructures and utilities to improve local sustainable livelihood (especially for fishermen)	Coordinating the four (4) RTs used in controlling local development. Four (4) RT involved and cancelled, after Rancangan Tempatan Daerah 2030 force and gazette
Rancangan Tempatan Lumut-Seri Manjung 1998-2010	NA	
Rancangan Tempatan Ayer Tawar 1997-2010	NA	

Source: Manjung Municipal Disctrict Office

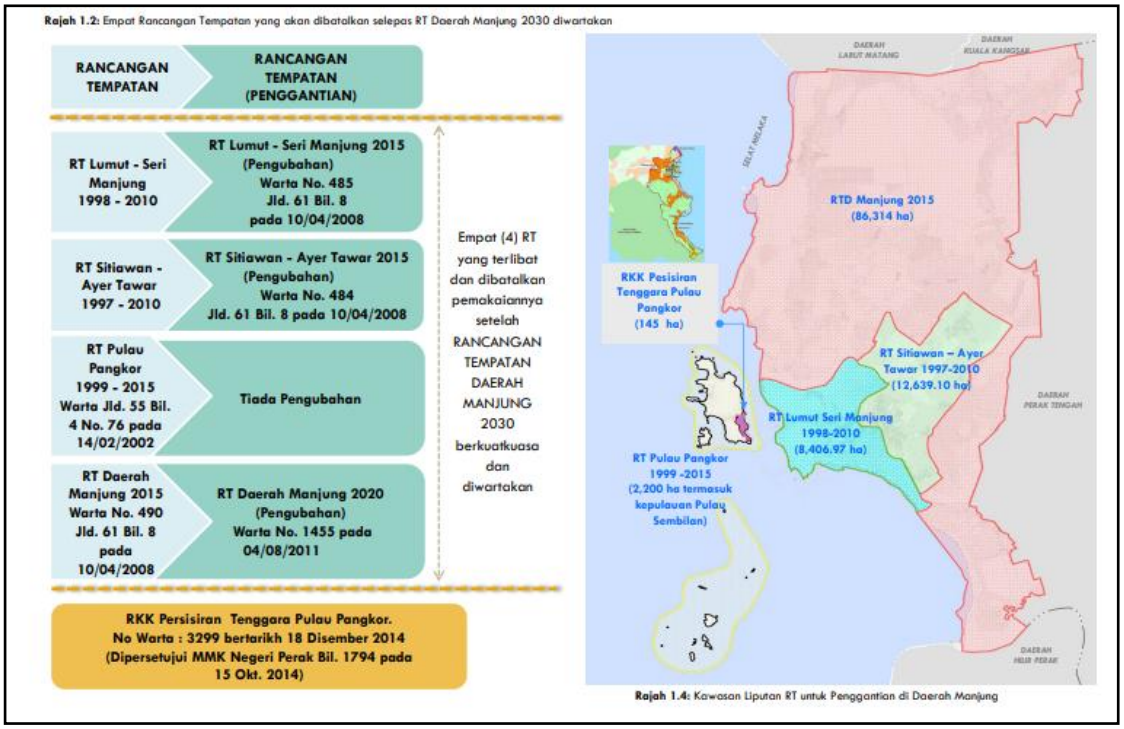


Figure 2.2 Rancangan Tempatan According to MMC

Source: Rancangan Tempatan Daerah Manjung Jilid 1 (2030)

2.4.3 Sustainable Tourism Development Concept

Tourism is widely recognized as a key sector for achieving the United Nation Sustainable Development Goals (SDGs), given major potential contribution to jobs and wealth in developing countries (UNWTO, 2017). The aspiration is that tourism can be a mechanism for improving the economy through providing decent work and human capital growth opportunities, reducing poverty, enhancing social inclusion, and improving the sustainability of the natural and cultural environment (UNWTO, 2017). Understanding the interdependences and complexity of tourism development, and its impacts in developing countries, involves determining whether tourism is benefiting households or communities, consistent with these aspirations (Westoby et al., 2021). Previously, numerous studies had reported that there was an indifferent impact of tourism development on the local community's well-being and livelihoods. Notably, many studies highlighted numerous positive impacts such as poverty eradication, eliminating hunger, employment generation, and lifestyle improvement (Li et al., 2020; Sharpley, 2002). However, researchers also argue that it brought more harm than benefit

to the local communities, such as displacement and relocation of communities, disruption of the economic systems, socio-political processes, and organisations (Shaw & Williams, 1994; Sirima & Backman, 2013).

The birth of sustainable development became the initiative that drives the development of other concepts, indicators, and targets to be achieved in support of sustainable development initiated from the Brundtland Report in 1987. These concepts include resilience in which sustainable livelihood acts as a tool or framework to achieve resilience and ecosystem services which protect the environment and what it offers. Utilizing sustainable development has commonly become a norm in the daily lives of institutions, government, companies, and policy makers (Blanchard & Buchs, 2015). Pillars of sustainable development include the economy, social and environmental aspects in which they co-exist. It is important to study tourism in a developing country like Malaysia because "tourism is widely acknowledged as a vital industry for reaching the United Nations Sustainable Development Goals (SDGs), given its significant potential to contribute to jobs and wealth in the developing countries (UNWTO, 2017)

Understanding the interconnections and complexities of tourist development and its repercussions in developing nations entails analysing whether tourism benefits households or communities in accordance with these goals. According to Hall (2019), there are five mains' themes in Sustainable Development Goals (SDGs) which include people, planet, prosperity, peace, and partnerships, and tourism contributes mainly to "prosperity" and "planet" due to the economic benefits of attracting people who spend money in local economies, and because of the potential effects that greater visitation and tourism developments can have on ecosystems and the environment. As a result, destinations must strike a balance between these frequently opposing objectives.

Considering, this research shall dwell on 4 Sustainable Development Goals out of 17s (see Figure 2.3), namely SDG 1 which promotes economic development and growth at all levels as well as generates income through the creation of jobs. To reduce poverty and empower underprivileged groups, especially women and young people, national poverty reduction goals can be linked to sustainable tourism development and its effects on local communities. Secondly, SDG8 (target 8.9) which is giving access to decent work opportunities in the tourism sector, society particularly youth and women can benefit from increased skills and professional development. In addition, it is also critical to attain sustainable livelihoods because it encourages the development and

implementation of policies to promote sustainable tourism that creates jobs and promotes local culture and products. Similarly, SDG12 (target 12.B), aims to establish and implement tools to analyse the benefits of sustainable development for tourism that produces jobs and promotes local culture and products. Lastly, SDG 14 (target 14.5), where the coastal and maritime tourism is a key segment for Small Island Developing States' (SIDS). The agenda is to enhance the economic benefits to SIDS and least develop countries from the sustainable use of marine resources, including through sustainable management of fisheries, aquaculture, and tourism (UNWTO, 2017).



Figure 2.3 The Sustainable Development Goals

Source: The United Nations (2017)

2.5 The Blue Economy Concept

The concept of "Oceans Economy" or "Blue Economy" is new, having emerged from the 2012 United Nations Conference on Sustainable Development in Rio de Janeiro (United Nation, 2020). The origin of this vision can be found in the 'Green Economy' (Pearce et al. 1989), which has been defined by the United Nations Environment Programme (UNEP) as an economic model "that results in improved human well-being and social equity while significantly reducing environmental risks and ecological scarcities" with the goal of delivering a low-carbon, resource-efficient,

and socially inclusive economy. Ninety-seven percent (97%) of the world's fishermen in developing countries are highly reliant on fishing as their main sources of food and income (Kelleher et al., 2012). Similarly, marine, and coastal tourism is a big part of the tourism sector and an important component of a rising blue economy (Cerqua, 2017; Jackie Ong & Smith, 2014; Silver et al., 2015). Consequently, marine, and coastal tourism is expected to be the greatest value-added segment of the ocean economy by 2030, accounting for 26 percent of the total (Brumbaugh, 2017). The impetus for "sustainable" is the incorporation of the concept of Blue Economy derived from Green Economy (Steffen, 2012) which is the balance between activities (economic, trade, legislative, and regulatory), the supporting system (ecological environment), and the communities that rely on it (livelihoods and food). This balance can be measured and converted into a measure of efficacy in striking the balance.

Practically, the blue economy is a concept that advocates the long-term utilisation of ocean resources for economic growth, employment creation, and environmental preservation (Ayilu et al., 2023; Schutter et al., 2021; Sharma & Sharma, 2020). It is founded on the notion that the ocean can provide economic opportunity and wealth while still protecting its natural integrity (Brent et al., 2020; Duha & Saputro, 2022; Fusco et al., 2022; Wenhai, 2019). The blue economy acknowledges the ocean's potential as a source of food, energy, minerals, and biodiversity (Duha & Saputro, 2022). It calls for an all-encompassing strategy to ocean management that considers the social, economic, and environmental elements of resource utilisation in general (Bond, 2019; Duret, 2022). There are a few theoretical perspectives of blue economy including the use of biodegradable materials as it supports the use of renewable resources for energy production such as wind, solar, and tidal power (Argawala, 2022). This reduces reliance on nonrenewable fossil sources and reduces carbon emissions. Not only that, according to Hao and Jiang (2023) and Pace et al. (2023) the blue economy sets a high value on the utilisation of closed-loop technologies that reduce waste and pollution. This includes developing items and processes that may be reused, recycled, or biodegraded at the end of their useful life, as well as advocating an ecosystem-based ocean resource management that takes into consideration the interdependence of marine ecosystems. This strategy considers the effects of human activities on coastal ecosystems and advocates for the preservation of threatened species and ecosystems (Islam et al., 2020). Economic inequality, food security, global warming, and

deforestation are just a few of the issues that the blue economy has the ability to address. The blue economy might assist in providing new economic possibilities, decrease poverty, and increase the resilience of coastal communities by supporting the sustainable use of ocean resources. Yet, there are several difficulties in putting the blue economy concept into action. They include the need for technical advancement (Froechlich et al., 2019), regulatory change (Jouffray et al., 2020), and stakeholder participation (Lee et al., 2020). Therefore, good administration and management of ocean resources are required to promote sustainable and equitable economic growth.

In addition to the statement above, the current growth in population and increased accessibility of coastal resources resulted in overcrowded and conflicted space (Bax et al., 2021) and struggling to fully address the current policy and strategies (Alexander, 2019). The blue economy is still a 'developing idea' (Roberts et al., 2016) however, it has become a significant part of the tourism sector and is an essential component of a growing economy (Cerqua, 2017; Jackie Ong & Smith, 2014; Silver et al., 2015). It is a notion with an inherent contradiction at its core—the requirement to coordinate implementation in accordance with numerous, often opposing stakeholder groups (Schutter & Hicks, 2019; Voyer et al., 2018) and, more recently, the Sustainable Development Goals (SDGs) (Lee et al., 2020). Resolving this conflict necessitates resources, both material and financial, as well as time, patience, and embodied authority.

Tourism is a significant economic sector that thrives on the sustainable use of marine resources (Arcos-Aguilar et al., 2021; Choudhary et al., 2021). Hence the blue economy and the tourism industry are inextricably intertwined. Beach vacations, water sports, and marine animal watching are popular activities for many tourists, accounting for a considerable portion of the worldwide tourism business. The Blue Economy idea fosters the idea of sustainable tourism that considers the environmental, social, and economic effects of tourism on marine and coastal ecosystems (Karani & Failler, 2020). By protecting the natural beauty and ecological integrity of the maritime environment, sustainable tourism may assist to provide economic possibilities and encourage local development. There are a few perspectives of sustainable tourism that are aligned with the principles of blue economy. This includes encouraging community-based tourism firms that are managed and owned by local communities (Sumarmi et al., 2020). This promotes social fairness by creating jobs and economic possibilities for residents. Not

only that, but the practices also strive to reduce the harmful effects of tourism on marine ecosystems such as coral reefs, seagrass beds, and marine species (Caparros-Martinez et al., 2022). This can include things like decreasing plastic waste, limiting water pollution, and encouraging responsible wildlife viewing. Sustainable tourism and blue economy promote green fisheries practices, such as responsible fishing methods, overfishing protection, and support for small-scale fisheries (Praptiwi et al., 2021), as well as cultural heritage and the preservation of indigenous customs and traditions (Phelan et al., 2020). Cultural tourism activities such as visiting local museums, attending traditional festivals, and participating in cultural interactions with local populations are also among the activities that preserve the local people's identity. There are four fundamental elements that make up the concept of the Blue (The Blue Economy Solution, 2014) and it is highlighted in **Error! Reference source not found.**below.

Table 2.3
Blue Economy's Elements

Blue economy's element	Descriptions	Sources
Innovation	Engine of growth New wealth and driver of innovation	Pauli (2010), Silver et al. (2015), Voyer et al. (2018), Wenhai et al. (2019)
Market	Conservative market	
Cash flow	Without depending on public subsidies	
Potential	Introduce more innovative technologies and marketing based	

Source: Researcher findings

Besides that, the factors that integrate the blue economy, such as ocean energy, port activities, shipbuilding and repair, maritime transport, coastal tourism, human development indicator, maritime fish capture, marine protected areas, and the reduction of greenhouse gas emissions, are good factors to stimulate economic growth, wealth, and employment (Gielen et al., 2019; Liu et al, 2021; Mart´ınez-Va´ zquez et al., 2023). Furthermore, the study by Mart´ınez-Va´ zquez et al (2023) found that the aspects of the blue economy that have the greatest influence on per capita income are living

resources, marine transportation, and ocean energy generation. As a result, it is critical to develop sustainable ocean management regulations in order to promote economic growth and job creation in the blue economy. Table 2.4 below is the summary of blue economy factors from numerous researchers which related to the marine and coastal destination development.

Table 2.4
Blue Economy's Factors

Blue economy concept	**Descriptions**	**Source**
Ocean management	Natural capital, business, and source of livelihoods	Silver et al. (2015), Voyer et al. (2018)
Ecosystem Services Approach (ESA)	Including natural, social, and human capital affecting human wellbeing	Costanza et al. (2014, 2017), Phelan et al. (2020)
Living and non-living marine resources	Living marine resources (fish, crustaceans, and molluscs, Non-living marine resources (oil, renewable biological resources, aquaculture, processing, transformation sector, maritime transport	European Commission (2021), Gielen et al. (2019), Liu et al. (2021), Mart´ınez-Va´ zquez et al. (2023)
Maritime transport, coastal tourism, and ocean energy production	Maritime transport (marine protected areas and port activities Coastal tourism (greenhouse gas emissions, marine protected areas and population density) Ocean energy production (non-living resources)	Mart´ınez-Va´ zquez et al. (2023)

Source: Researcher findings

Table 2.5
Comparison of the Value of the Blue Economy

Code	Description		EUNETMAR (2013)	European Commission (2021b)	Sectors considered for this study
			Sector and sub-sectors		
A 03.10	Community and the fishing sectors	Capture fisheries	Marine living resources (Primary production)	Food, nutrition, health, and ecosystem services	Anchovies
C 10.85	Economic and Structural studies of the sector	Prepared meals and dishes	Marine living resources (processing and distribution)	NA	Dry fish Seafood product
C 10.89		Other food products			
G 46 38	Aquaculture sustainability and development	Wholesale of other food including fish, crustaceans, and mollusks			
H 52.22	Maritime policy-overall studies and services	Service activities incidental to water transportation	Port activities	Maritime transport (passenger ferry services)	Jet ski Boat rides
H 50.10		Sea and coastal passenger water transport	Maritime transport (Shipping and transport)	Maritime transport and shipbuilding (passenger ferry services)	Ferry service (Lumut and Marina Jetty)
			Coastal tourism	Leisure,	(Exclude

		(transport)	working, and living (cruise tourism)	cruise tourism)
I 55.10	Hotels and similar accommodation	Coastal tourism (accommodation)	Coastal tourism (Leisure, working, and living)	Chalet and resorts
I 55.20	Holiday and other short-stay accommodation			
G 47.30	Retail sale of automotive fuel in specialized stores (for motor vehicles and motorcycles)	Coastal tourism (transport)	NA	Pink Van Rental motorcycle
G 47.60	Retail sale of cultural and recreation goods in specialized stores	Coastal tourism (Other expenditures)	NA	Duty Free items Restaurant
G 47.70	Retail sale of other goods in specialized stores			
I 56.00	Food and beverage service activities			

Source: EUNETMAR (2013) and European Commission (2021b)

2.6 The Sustainable Livelihood Concept

Sustainable livelihood (SL) is one of the key issues concerning strategies of the rural poor in marine and coastal areas with fragile eco-environment. As a worldwide issue, poverty has been measured in various ways, such as income, consumption, assets, and multidimensional view. As part of the continual development of poverty measuring approaches, sustainable livelihood is deemed to be more reasonable, which also covers the multidimensional aspects in tracking poverty. The SL was initially proposed by the Brundtland Commission on Environment and Development (WCED) to relate people to their environment in constructing government programs to benefit them. Then, this concept was expanded for the purpose of poverty by United Nations Conference on Environment and Development (UNCED). According to UNDP (1997), SL provided a broad approach in multilevel aspects for policies to deal with development, sustainable resource management, and poverty eradication simultaneously.

According to Vidal de la-Blache (1911), cited in De-Haan (2012), the concept of 'livelihood' was first used (1911) in French geography as "genres de vie, meaning the entity of livelihood strategies of a specific (human) group in a particular region". In 1940, livelihood was used by Evans-Pritchard (1940), an anthropologist, to mean "a set of activities – mainly economic – through which people make a living" (De-Haan, 2012). However, Polanyi and Pearson (1977) opposed the concept of livelihood being mainly an economic activity and stressed that it needs to be looked at from a socio-economic and historical perspective. Since then, the historical notions of what people do and what they do have set the foundation of modern livelihood studies (De-Haan, 2012; Geiser et al., 2011). Livelihood is a complex phenomenon with a mixture of aptitudes, material and social assets, and various activities that are required to ensure means of living (Ellis, 1998, 2000; Scoones, 1998). Livelihood systems are multidimensional which determine family/community lifestyle and the life-context within which people feel at home (Baumgartner & Hogger, 2004). People make livelihood choices by combining and using various assets to ensure livelihood outcomes such as more income, increased well-being, reduced vulnerability, improved food security, and more sustainable use of natural resource base (Babulo et al., 2008; Department for International Development (DFID), 1999). These choices are made based on available "resources, skills and socio-economic status" (Owusu, 2007).

Chambers and Conway (1992, p.6) came up with the most used definition of sustainable livelihoods and stated that “a livelihood comprises the capabilities, assets, and activities required for a means of living, while a sustainable livelihood will mean the ability to cope with current livelihood and at the same time, able to provide sustainable livelihood opportunities for the next generations”. However, sustainable livelihoods vary from one individual or community to another due to different sustainable outcome objectives (DFID, 1999). Hence, there is no standardized definition for it. A sustainable livelihood framework works as a basis to analyze a community's livelihood and ultimately allows the authority, policymaker, academician, and other relevant parties to identify where help and intervention can be made (Farrington et al.,1999). In order to gain a balanced perspective on sustainable livelihoods, it is crucial to understand the concept of poverty. The literature on poverty suggests that people are poor because of lack of employment (Schumacher, 2011). Poverty is measured through indicators such as income (wages or salaries) or consumption, but these may not determine individual well-being and do not reflect the reality of poor people (Chambers, 1995; Chambers & Conway, 1992). However, it is argued that the SLA only focuses on micro-level analysis and does not encompass generalised trends at the macro-level (De-Haan, 2012; Morse & McNamara, 2013). The approach does not explain how external interventions in the form of policy formulations create and destroy livelihood capital(s) (Crouch & McKenzie, 2006; Morse & McNamara, 2013). According to De-Haan (2012) the impacts at every level such as international, national, regional, and local, scale must be acknowledged to understand the broader sustainable livelihood outcomes. Hence, it is vital to create linkages between micro-macro impacts because of external interventions (Clark & Carney, 2009)

The formation of tourism areas and related developments sometimes results in the displacement and relocation of local communities (Sirima & Backman, 2013; Su et al., 2016). As important tourism stakeholders, the host communities and their livelihoods are critical to the region's tourism sustainability and development. Allison and Horemans (2006) and Serrat (2017) advocate for a people-centered, holistic and sustainable livelihood approach, based around five key features: livelihood assets (economic, social, human, physical, and natural; DFID, 1999); transforming structures and processes (laws, policies, culture, and institutions (Carney, 2003; Scoones, 1998)

vulnerability context (shocks, trends, and seasonality); strategies (activities employed to generate means of household survival (DFID, 2000); and outcomes (the successes and objectives achieved by livelihood strategies (Carney, 2003).

In Malaysia there are few studies on sustainable livelihoods carried out in 2018 by Zubir et.al. The study focused on coastal communities B40 group of coastal fishermen whereby they investigated the achievement of sustainable livelihood through the measurement of a sustainable livelihood index based on Sustainable Livelihood Analysis (SLA) to improve the standard and quality of living. However, this study has limitation since it only focused on fishermen communities as its sample size while avoiding other sub activities such as tourism sector. The involvement of tourism sector in small islands or in coastal and marine destinations explores the other choices of livelihood strategies among the local communities. Masud et al. (2016) reported that tourism development in the islands has resulted in economic development, with the respective communities' standard of living improving the physical and social assets where it is crucial mechanism for economic development. However, not much improvement was seen in the sense of human, financial and environmental assets development (Masud et al., 2016). Another research was done among the traditional fishermen in Terengganu, where the government had undertaken an artificial reef development program to improve the conventional fishermen's economic conditions. Still, the aim has yet to be achieved as the regression results show that the artificial reef areas are negatively correlated with the fishermen's income in almost all Terengganu studied districts, besides Besut (Islam et al., 2014). From this study, it can be concluded that different study of livelihood will give different results and impact to the local community outcome based on what was needed.

In many coastal areas and islands, tourism development has improved local livelihoods by reducing natural resources pressure (Fabinyi, 2010; Porter et al., 2015; Su et al., 2016). In recent years, more significant concern has been expressed over the condition of the coastal and marine environment. The rapid and uncontrolled tourism development in the coastal areas has exposed their fragile ecosystems to an ever-increasing risk of ecological degradation. The unplanned and poorly managed tourism development could damage the coastal and marine ecosystems (Munro et al., 2019). The negative pressures include increasing pollution activities and environmental stress caused by tourists and the local community. Despite its many adverse impacts, coastal

and marine tourism can positively affect the local community and its destination (Woo et al, 2018). According to Kunjuraman (2022), livelihood diversification through ecotourism is the best choice for the rural communities especially in coastal areas in developing countries, including Malaysia.

2.7 Sustainable Livelihood Framework Approach

The Sustainable Livelihoods Approach (SLA) was pioneered in the 1990s, with the most noteworthy work done by Chambers and Conway (1992), followed by Scoones (1998), Carney (1998, 2002), and Ashley and Carney (1999). The SLA concept, which originated in the context of rural development, has subsequently been implemented and embraced in a variety of instances in both developed and developing countries (Ellis, 2000; Scoones, 1998). The sustainable livelihood framework is considered a suitable tool for analyzing livelihoods in this study because it links the broader socio-economic components of household assets, livelihood activities, outcomes of livelihoods activities, and factors mediating access to livelihood activities (Ellis, 2000; Farrington et al., 2004; Scoones, 1998). It also frames livelihoods as holistic activities. This framework (see Figure 2.4) has five main components that are critical for investigating community livelihoods and rural development. The components are contexts, livelihood resources, transforming processes and structures, livelihood strategies and livelihood outcomes.

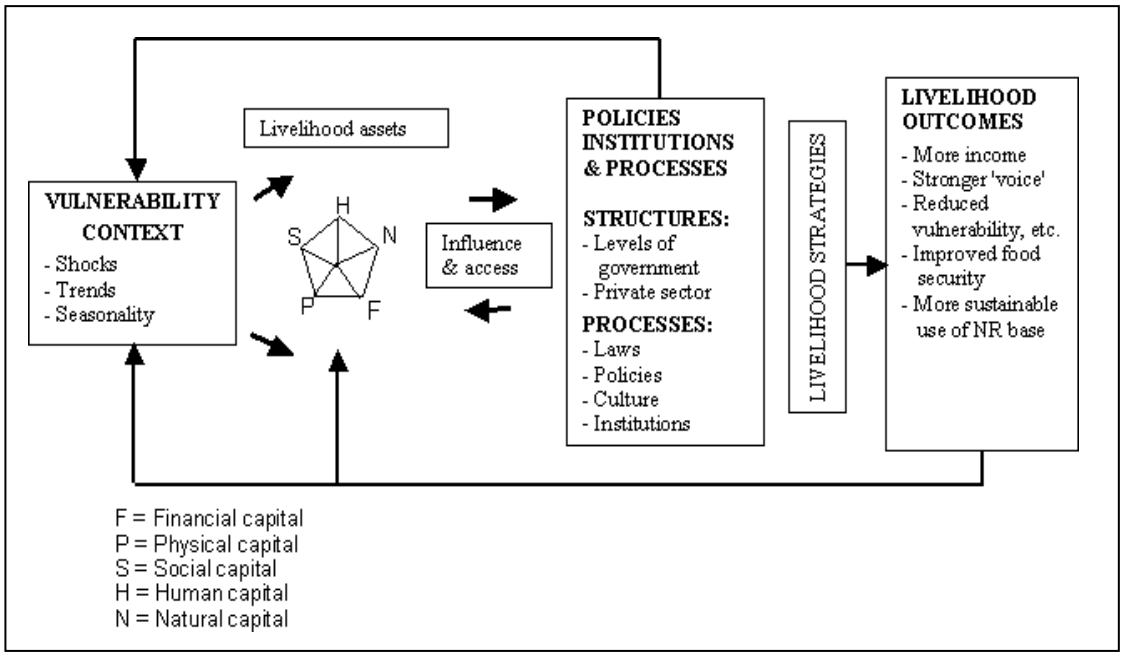


Figure 2.4 Sustainable Livelihood Framework

Source: Carney (1998)

Sustainable livelihood framework further highlights that the assets or resources are the inputs to a livelihood agenda which are utilized to produce livelihood outcomes (Scoones, 1998), besides, it provides an overview of poverty as limited ability of people or households that shows the vulnerability system, the trends, and shocks of life (Murray & Ferguson, 2001).

Figure 2.5 are sections that build sustainable livelihoods at the level of people, households and communities which are divided into 5 sections (Murray & Ferguson, 2002), namely: (i) Social assets. These assets are made of the social connections that illustrate how women can achieve their goals, (ii) Physical assets. Physical assets include women's basic needs for housing and food, as well as access to services and information to develop livelihood, (iii) Human resource assets. These assets show how women can work with associated skills, knowledge, education, and leadership ability (iv) Natural assets are assets that are connected to the stocks and environmental services, (v) Financial assets. Financial assets are revenue, money, and financial security (including access to finance from the government).

Several scholars have discussed the concept of sustainable livelihood such as the Sustainable Livelihood Approach which incorporates all elements required for

sustainable livelihood (DFID, 1999). Meanwhile, transforming processes and structures influence whether and how a variety of livelihood resources are acquired and transformed into livelihood strategies. As a result, there are multiple assumptions that livelihood strategies can be developed and used to achieve various objectives. Different outcomes are possible in the form of income generation, material accumulation, good well-being, empowerment, health, and vulnerability (Chambers & Conway, 1992; Ellis, 2000).

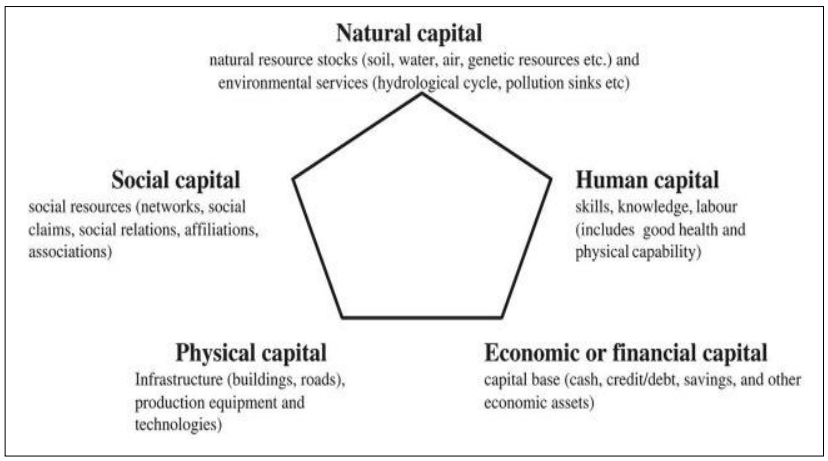


Figure 2.5 The Livelihood Resources or Assets

Source: DFID (2000)

In the context of coastal and marine tourism development, stakeholders might focus on enhancing natural capital by protecting and preserving marine ecosystems, while promoting responsible tourism practices that minimize negative impacts on the environment. Human capital could be developed by providing education and training opportunities for local communities, while social capital could be strengthened through community engagement and collaboration. Moreover, physical capital and financial capital are also important components to consider, as these resources are essential for developing and maintaining infrastructure and supporting growth for the local communities. However, it is important to ensure that such development is sustainable and does not negatively impact the natural environment or local communities.

2.8 Past Studies on Community's Sustainable Livelihoods Approach in Tourism Studies

Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) are utilised in this study to conduct a systematic review. Quite a few recent publications have adopted the PRISMA approach to be used in tourism research (Garcês et al., 2018; Stone & Duffy, 2015; Wijesinghe et al., 2017; Yang et al., 2017), and it contributes to a clear understanding of the execution, quality, and rigour of systematic reviews (Kim et al., 2018). The first phase is the identification of articles related to sustainable livelihoods and tourism studies, which involves a thorough search of important journal databases like Scopus, Web of Science (WOS) and Science Direct. Supporting databases like Google Scholar were also used, as suggested by Xiao and Watson (2017) and Bates et al. (2017), to find other sources, like journals that were not in the top databases. Then, the screening and eligibility took place to uncover the issue related to the study. The summary of the past studies reported in Table 2.6.

The impact of tourism development on the community's sustainable livelihoods has been well researched. For example, a study by Xu et al. (2022) stated that tourism is an alternative way to alleviate poverty and help them to develop their ethnic and rural tourism. Besides that, encouraging the communities (farmer) into tourism activities help them to develop their ethnic and rural tourism. In addition, overall sustainable livelihood outcome increases due to tourism activities. A study by Su et al. (2019) agreed that tourism development creates both positive and negative impact to the community livelihood. The flexibility to engage in new livelihoods varies, as it is difficult for individuals with minimal assets to participate in tourism. Within the community, an income gap has formed. Such social dangers have been overlooked by local governments and are not reflected in local policies.

Although some research findings outline that tourism development significantly changes the livelihoods of the community (Kimbu et al., 2022; Su et al., 2018; Su et al., 2019) several studies demonstrate differently. For instance, a study by Liu et al. (2022) contended that changes related to tourism development and heritage conservation can reduce the sustainability of livelihoods in living heritage sites. The study focuses on transforming structures and processes by looking at the local community participation. Even though tourism creates a good economy transformation

to the destination, somehow or rather the traditional livelihoods have been affected as residents are forced to adapt to the demands of tourism. However, researchers also argue that there are certain risks that affect the transformation of the community livelihood which is the seasonality of the areas (Su et al., 2022).

The tourism industry is extremely exposed to seasonality and one of the crucial factors affecting sustainable development of the destination. Due to that reason, community development and tourism do not significantly improve much and might lead to unsustainable tourism livelihoods. The study by Su et al. (2022), argued that seasonality will affect the transformation process of the local community's development, and tourism does not significantly improve much due to this reason. However, to cope with the risk, participating in off-season tourism work and combining it with other job practices are the key seasonality-coping techniques of rural households; yet over-dispersing resources affects livelihood efficiency. Besides, incorporating other resources such as cultural heritage and community self-organization would expand the theory of sustainable livelihoods.

Another study by Su et al. (2019) focused on the seasonality impacting the survivability and sustainability of the rural community in Guangxi of Southern China. Tourism income-oriented can only be maintained during the peak season which creates the low efficiency value of the households. Therefore, in rural areas with underdeveloped tourism, tourism is just a supplement to existing livelihoods, rather than a replacement. Albasri and Sammut (2021) discussed vulnerability in three different contexts: seasonality risks, trends, and shocks in three household groups (fisher, fish farmer and ecotourism operators). The effects of seasonality vulnerability risks on these household groups were significant due to the nature of the small island's environmental conditions as well as the nature of their livelihoods which is fisheries and ecotourism (Adrianto & Matsuda, 2022; Schwarz et al., 2011). However, in their study it was mentioned that ecotourism household is the least vulnerable due to their non-extractive activities.

In any tourism development, community involvement or participation is essential to develop a holistic strategy for the destination or the community itself. When tourism emerged as an alternative livelihood for some local communities, it creates positive influence on their livelihoods especially improving their economic stability (Su et al., 2018). However, lack of community participation has led to the adverse impact

on the score of transforming structures and processes (Su et al., 2022) and restricted the distribution of benefits (Su et al., 2018). In addition, the rapid development and urbanization of the destinations affect the sustainability of local rural livelihood which causes the decline in human resources and the insufficient integration of traditional agriculture with tourism. Another study by Degarege and Lovelock (2021) contended that even though tourism has given minor changes to the community food availability or food security, yet there has been limitation around its contribution to food stability. The reason for this is because the association between tourism and local agriculture is lacking. The challenges might happen between the community and policy maker due to lack of communication, participation and understanding on the development of the destinations. Therefore, it is crucial to have a better relevant policy as guidance for addressing the challenges of tourism destinations.

In the meantime, another study by Kunjuraman (2022) found that the community-based tourism (CBT) project has given some impacts to the community in Sabah, Malaysia. Since the destination (Lower Kinabatangan) is rich with natural resources (natural capital), it has the potential of attracting ecotourists from Japan, Europe, and Southeast Asia. The most significant impact on the success of the ecotourism project is the contribution of the local communities itself. The socio-cultural activities performed by the locals have attracted tourists thus, the novel 'socio-cultural capital' can be proposed from the origin SLF framework. Therefore, the community's culture should be preserved for a long-term sustainability (Kunjuraman, 2022) and become a source of income to them (Bhalla et al., 2016; Pasanchay & Scoot, 2021). It is well acknowledged that ecotourism has pushed the local people to learn a variety of new skills in order to gain access to new opportunities (Lasso & Dahles, 2018), particularly involvement in the ecotourism business. Pasanchay and Schott (2021), mentioned that through tourism activities such as CBT, the development of homestays contributes to a positive impact to getting the poor families out of poverty while retaining decision-making within the community. Operating homestays has significant capacity to promote SDGs 1 (poverty reduction) and 11 (sustainable cities and communities), but there are major costs that require communal planning and control.

Meanwhile, N'drower et al. (2021), argued that tourism is an essential development tool for developing community-based tourism (CBT). Moreover, a positive view of tourism as an additional source of income that fits well with the existing

sustainable livelihoods such as a strong link between development decisions and the core Melanesian values of clan identity, leadership and support from elders, community cooperation and reciprocity in the successful maintenance of tourism activities; the need to manage the entire supply chain and not be limited by the actions and power of external tourism operators and agents.

Koki (2017) investigated the concept of ecotourism with a single activity in the destination and how this relates to sustainability of the communities. Most of the communities agreed that ecotourism initiative significantly influenced job creation, financial empowerment to them and helped the local community acquire both human (educational) and physical assets. Besides that, in the face of unemployment, the communities must be equipped to embark on ecotourism projects, which have the potential to improve livelihoods. Therefore, various governances of tourism development have influenced local livelihood in different ways. Community based tourism (CBT) is one way to alleviate poverty and improve the livelihood assets of the local communities (Qian et al., 2017) and CBT should be promoted as one of the policies to alleviate poverty in this destination.

Li et al. (2016) investigates the growth of ethnic tourism that has resulted in changes in the increase of land for buildings and the diversification of land use functions, with a trend of shifting from meeting the living needs of local villagers to satisfying tourists, income composition, and uneven spatial distribution of tourism income. Ethnic tourism has also resulted in the deterioration of traditional social management structures, the breakdown of neighbouring relationships, the over-commercialization and staged authenticity of ethnic culture, and the gradual disappearance of agricultural knowledge in favour of a trend of increasing modern business knowledge and higher education. Furthermore, these changes, which involve livelihood assets from ecological, economical, human, social, and cultural dimensions, are interconnected and interacting, forming new evolution characteristics of ethnic communities. Conflicts over livelihood strategies have created new vulnerabilities that will have an impact on ethnic communities' long-term evolution.

A study by Su et al. (2019), agreed that an agricultural product with strong social and cultural implications, have a high potential to be linked with tourism to improve community livelihood sustainability. The enhancement of livelihood diversity and choices improve the community livelihood sustainability. However, the effects on

household livelihood sustainability differed since tourism involvement is limited by the degree of livelihood assets which in the end contribute to the unbalanced distribution of benefits and social tension (Su et al., 2016b, 2016c; Su et al., 2017; Su et al., 2019). On the other hand, Huang et al. (2021), contended that, tourism-related households may be more sensitive to external risks and shocks than balanced livelihood households due to a lack of diversification in their sources of income. Additionally, the capital endowment and availability of resources determine a household's capacity to select livelihood options that provide greater income.

Households with abundant resources are more likely to engage in high-return livelihood activities that demand significant capital expenditure. On the contrary, low-income households lack the opportunity to invest and are obliged to continue their low-returning livelihoods. Besides that, the risk such as seasonality also play an important role to shape the local community decision on tourism development. However, in different result by Xu et al. (2022) which proposed a grounded theory approach, found that rural tourism development does not significantly improve due to seasonality and participating in tourism work in the off-season and combining it with other work practices are the main livelihood strategies of rural households to cope with seasonality. However, Kheiri and Nasihatkon (2016), study that rural tourism has been able to play an effective role in people's sustainable livelihoods, and there is a substantial relationship between rural tourist development and sustainable livelihoods. Rural tourism can forecast a high proportion of changes in the sustainability of people's livelihood lifestyles. As a result, with good planning, rural tourism can be used to develop sustainable lifestyles, improve people's lives, create job opportunities, and reduce poverty.

In the meantime, Li et al. (2021), contended that the increasing number of failure project creates challenges of the rural community in China and to achieve the long-term sustainability. The income from alternative livelihoods such as tourism and off-farm jobs reduced the reliance on certain natural resources. Yoopetch and Kongarchapatara (2021), in their study, extended the sustainable livelihood approach and theory of reasoned action. The findings assist the tourism stakeholders to develop specific guidelines to increase the tea tourists and to increase the revisit intentions. Additionally, promoting sustainable livelihood of the tea community can be an effective strategy to attract and satisfy the tea tourists. Integrating the natural resources of the destinations

and the involvement of the community will help to boost the tourism destinations. The development is not only to full fill the needs of the tourist but to improve the quality of life, and satisfaction of the community.

Ma et al. (2021), focused on the role of cultural factors in households' sustainable livelihoods. The modified SLF can be utilised as a theoretical model to characterise the sustainable livelihoods of households in tourism areas with strong cultural resources. Traditional culture has a huge impact on individuals' ideas and behaviours and is an essential source of income for households (livelihood assets). However, as rural tourism has grown, cultural preservation has become a potential source of livelihood vulnerability for households in the study area. Woyesa and Kumar (2021), in their study found that a sustainable livelihood model for coffee tourism compatible with conservation and livelihood improvement is recommended to make the region a niche tourism destination. Matiku et al. (2020), the involvement and communities support in the process of tourism development is crucial to make the operation success and for attainment of sustainable livelihoods. However, due to the poor or neglected institutional systems, the bulk of community-driven tourism projects do not ultimately benefit communities. The support by the local authorities is crucial to manage and guide the local communities.

Acha-Anyi (2020) explores the relationship between leisure tourism and sustainable livelihoods where it shown positive perception of leisure tourism impacts on sustainable livelihoods especially in the context of communities socio-cultural. Li et al. (2020) contended that it is important to accelerate and reduce poverty among the smallholder farmers to achieve the sustainable livelihood development. Grounded theory has been utilized, and a new variable has been found, which is psychological capital (Psycap) which can be included as sustainable livelihoods' assets. Psycap can effectively promote the performance of Human capital (Humcap) and Physical capital (Phycap), with both direct and indirect benefits on sustainable livelihoods; Phycap and Humcap have considerable implications on the new sustainable livelihood index.

Su et al. (2020) stressed that increased government support and public awareness following GIAHS classification do not alleviate Guanhou Village's battle between conservation and development. To conserve traditional agriculture and improve community livelihoods, multi-layer integration of tourism and the agricultural heritage system should be pursued, particularly in the context of rapid urbanisation. In

addition, Kunjuraman (2022b) stated that government and relative support are the strong network for the success of the project therefore to grow the CBE, a social network has been a vital source for the rural community to diversify their distribution channels in order to connect to the tourism market (Schott & Nhem, 2018).

Bires and Raj (2020) stated that the influence of each tourist component on each livelihood outcome varied, and it favoured tourism enterprises over rural household's stratum. Policymakers and researchers should focus on integrated and diverse livelihood approaches that involve communities in the development process to make tourism a gateway for livelihood diversification. According to Singgalen et al. (2019), the ritual capital (livelihood assets) was merged with rural tourism development, boosting the customary community's ability to access other capital in Kakara and Limau Village. Through policies, the sustainable livelihood strategy has been a strategic approach that can improve the economy of rural areas and establish harmony of socio-cultural, economical, environmental, and political growth. However, it is holistic and contextual, allowing for the presence of many capital characteristics generated based on the culture of the society. The Indonesian setting demonstrates that community customary rituals in the villages of Kakara and Limau in North Halmahera Regency are forms of capitals that mobilise claims and access to capital such as natural, human, physical, financial, and social capital.

In addition, Hieu et al. (2018) found that the destination has created valuable resources for sustainable economic development for the local communities. However, the locals are likely unaware of these ideals because they receive no direct benefit from them. To create awareness among the local communities and to ensure they are participating, tourism initiatives and policy should be in line with the development. Therefore, the outcome is more sustainable. Ma et al. (2018) contended that livelihood assets are related to the livelihood options and income of the tourism communities. Additionally, Huang et al. (2017) agreed that the rapid development happening in China has significantly influenced the rural household's livelihoods. The study compared the two different villages which tourist and non-tourist which show great differences after 20 years of development. This village are adjacent and have similar development backgrounds. The tourist villagers influenced by the high tourism industry are enjoying higher income in life which has created a balance on their well-being. For non-tourist

villagers they earn additional income by finding other jobs outside the village and conducting part time business.

Although rural tourism has an obvious location-specific effect on poverty alleviation and socioeconomic development, its development is limited in terms of large-scale poverty reduction efforts in disadvantaged areas. To implement a proper tourism plan and achieve sustainable development, comprehensive management measures must be implemented to modify the local conditions of rural communities and fully utilise the spill over impact of visitor consumption, community participation in ecotourism, community training and governmental support (Koki et al., 2021). Therefore, the involvement of local authorities is crucial to the destination.

Based on the past study review, this study classified the research findings into multiple categories such as the influence of tourism development which led to the changes of sustainable livelihood outcomes of the local community on either way, positive and negative. Additionally, most of the study highlighted other strategies the destinations need to focus on such as the introduction of Community based tourism (CBT) or Community based eco-tourism (CBE) which shapes the livelihood diversification and, in the meantime, reduces the dependency of one resource. Furthermore, in Malaysia setting there is a scarcity of studies focusing on how the tourism development influence the sustainable livelihoods of the community. Therefore, there is a need for the topic to be explored in this context.

Table 2.6
Summary of Past Studies on Sustainable Livelihood Practices in Tourism Studies

No	Authors	Year	Setting	Country	Subject theme	Sustainable livelihood practices examined
1	Liu et al.	2022	Heritage tourism	China	Sustainability livelihood change	Changes related to tourism development and heritage conservation can reduce the sustainability of livelihoods in living heritage sites (transforming structures and processes) *Theory:SL (incorporating cultural heritage capital and community self-organisation)*
2	Su et al.	2022	Rural tourism	China	SL model and grounded theory	Psychological capital is an important component under the influence of seasonality. Rural tourism does not significantly improve rural livelihood due to seasonality and participating in tourism work in the off-season and combining it with other work practices are the main livelihood strategies of rural households to cope with seasonality
3	Kunjuruman. (b)	2022	CBE (eco-tourism)	Malaysia	Socio-cultural capital	A more comprehensive SLF was proposed with the inclusion of novel socio-cultural capital
4	Kunjuruman. (c)	2022	CBE (eco-tourism)	Malaysia	SLF	CBE ventures have transformed the local communities as ecotourism entrepreneurs to generate income to secure livelihoods despite depending on fishing which was considered as the main livelihood activity

5	Kunjuruman. (b)	2022	CBE (eco-tourism)	Malaysia	SLF	Social network and ecotourism awareness, generation of side income and a business venture, and biodiversity conservation for ecotourism development as motivation factors to the local community to venture into ecotourism and acknowledged ecotourism as a sustainable livelihood diversification strategy while practicing the existing other livelihood activities
6	Xu et al.	2022	Rural tourism (agricultural)	Vietnam	MOA theory and SLA (behavioral intention Participation sustainable livelihood outcome perception)	Farmers' involvement in poverty alleviation through tourism is a complex process of behavior and psychological perceptions.
7	Huang et al.	2021	Rural tourism (village)	China	Livelihood choice Sustainable livelihood	Rural households, tourism livelihood yields the highest income, but the lack of diversity of livelihood activities may make tourism livelihood household more vulnerable to the external risk and shocks than balanced livelihood households
8	Degarege & Lovelock	2021	Rural tourism	Ethiopia	Impacts of tourism Food security	Tourism was not strong enough nor properly integrated with existing livelihoods to support the local communities' food security, generally only

						offering a minor contribution
9	Li et al.	2021	Rural	China	Livestock and socio-economic	The income from alternative livelihoods such as tourism and off-farm jobs reduced the reliance on cattle but encouraged having more horses
10	N'drower et al.	2021	Rural Village-community-based tourism (CBT)	Papua New Guinea	Community well-being	Positive view of tourism as an additional source of income that fitted well with existing sustainable livelihoods
11	Yoopetch & Kongarchapatara	2021	Tea tourism	Thailand	Attitude, subjective norm, and tea tourism satisfaction, revisit intention	Sustainable livelihood has a positive significant effect on tea tourism satisfaction
12	Pasanchay & Schott	2021	Rural Homestay (CBT)	Laos	Livelihood benefits and costs of operating a homestay	Operating homestays offers significant capacity to advance SDG1 and 11, however, extensive costs requiring collective planning and management were also uncovered
13	Ma et al.	2021	Rural tourism (culture)	China	Livelihood strategies Cultural capital	Traditional culture significantly impacts locals' thoughts and behaviours and is an indispensable livelihood asset for households. However, rural tourism development has made cultural preservation a potential source of livelihood vulnerability for households in the study area

14	Woyesa & Kumar	2021	Rural coffee tourism	Ethiopia	livelihood, sustainability, and conservation, Livelihoods diversification	A sustainable livelihood model for coffee tourism compatible with conservation and livelihood improvement is recommended to make the region a niche tourism destination
15	Matiku et al.	2020	Community-driven tourism projects	South Africa	Sustainable tourism Sustainable livelihood	Community-driven tourism projects employ the local communities, provide an income through profits and communities have access to capital assets.
16	Acha-Anyi	2020	Leisure tourism	Africa	Leisure tourism and sustainable livelihoods	Positive perception of leisure tourism impacts on sustainable livelihoods
17	Li et al.	2020	Rural village	China	Poverty reduction and sustainable development	Psycap can effectively promote the performance of Human capital (Humcap) and Physical capital (Phycap), with both significant direct and significant indirect effects on sustainable livelihoods; Phycap and Humcap have significant impacts on the new sustainable livelihood index
18	Su et al.	2020	Agriculture heritage tourism	China	Government support and public awareness	The increased government support and public awareness after GIAHS designation do not ease the struggle between conservation and development at Guanhou Village
19	Bires & Raj	2020	Rural and urban	Ethiopia	Livelihood	The effect of each tourism component had varied

			tourism		diversification outcomes or asset	effects on each livelihood outcomes
20	Su et al.	2019	Tea tourism	China	Community livelihood sustainability	Improvement in community livelihood sustainability was identified through enhancement of livelihood diversity and choice
21	Su et al.	2019	Agriculture tourism	China	Livelihood diversity (synergistic relationships between tourism and other sources of income)	freedom to engage in new livelihoods varies as those with limited assets are difficult to participate in tourism. An income gap has emerged within the community. Such social risks have not been considered by the local government and are not reflected in local policies.
22	Su et al.	2019	Rural tourism	China	Sustainable livelihood Seasonality	LCI (Livelihood capital index) of tourism income-oriented households ranks second among the four types of households, while the LCI of tourism-engaged households in peak season performed better than that of those not engaged. However, the number of households participating in tourism nearly halved during the off season, and they are mainly diverted to temporary labor work, which may be one of the reasons for the low livelihood capital efficiency of tourism households
						Livelihood capital and strategy of different

						household types in response to seasonal fluctuations in tourism
23	Singgalen et al.	2019	Rural Village (culture)	Indonesia	Social capital	ritual capital is a livelihood asset in the context of tourism development in North Halmahera Regency, Indonesia.
24	Hieu et al.	2018	Geo-tourism	Vietnam	Geomorphological resources and livelihood	Unique geomorphological resources, which are valuable for tourism development. However, the local people are unaware of these values likely because they have no direct benefit from them
25	Ma et al.	2018	Rural village	China	Livelihood assets and sustainable livelihood	Effect of livelihood assets on community income and the spatial difference of the factors that affect community income
26	Su et al.	2018	Agricultural Heritage tourism	China	Livelihood system and livelihood sustainability	Tourism emerges as an alternative livelihood for some residents which exerts positive economic influence. However, tourism participations are currently low level which restricted the distribution of benefits
27	Huang et al.	2017	Rural tourism	China	Income level	The livelihood models of the two villages show great differentiation after 20 years of tourism development
28	Koki	2017	Eco-tourism	Kenya	Community livelihood	Contributed to the acquisition of both human (education) and physical assets owned by the local

					Eco tourism development Attitude	community. Environmental conservation has also been achieved through ecotourism initiatives. Job creation and financial empowerment to the local people
29	Qian et al.	2017	Rural tourism (village)	China	Household livelihood assets and institutional arrangements	Livelihood assets improved
30	Li et al.	2016	Ethnic tourism	China	Changes in livelihood assets *Theories of livelihood*	The development of ethnic tourism has led to changes in the increase of building land, and the diversification of land use functions with a trend of shifting from meeting local villagers' living needs to satisfying tourists, income composition and uneven distribution of tourism income spatially.
31	Wachirasirodom & Tadanithi	2016	Coastal	Thailand	CBT and Sustainable livelihood	Effect of Sustainable livelihood thru CBT

Source: Researcher findings

2.9 Past Studies on Community's Sustainable Livelihoods Approach in Marine and Coastal Tourism Destination Development

According to Adnan et al. (2019), a systematic review is an organised and explicit method for identifying, selecting, and critically reviewing significant data from previous studies. To filling the gap of the study in the context of Malaysia setting, a qualitative approach was applied to uncover the issue which is the impact of tourism development on the local community's livelihood through sustainable livelihoods approach. The researcher manually monitored the retrieved articles to ensure all the remaining articles are in line with the criteria. The summary of the past studies is reported in Table 2.7.

Livelihood assets, also known as capital endowments, are the heart of the framework and represent the communities' strengths and weaknesses in numerous categories, influencing their livelihood strategies and outcomes specifically in rural coastal and marine rural tourism destination development (Fischer et al., 2021). Human capital refers to household members who contribute to maintaining the livelihoods, education, and health. In the island setting, human capital in health contexts such as hospitals, health centres and drug stores are essential and valuable for rural households. Besides that, education and skill training also play a significant role in shaping the community out of poverty (Fischer et al., 2021; Lowe & Tejada, 2019; Towner & Davies, 2019). However, the lack of resources or requisite skills and access to education among the communities might prevent them from accessing rewards from tourism and breaking out of poverty (Aazami & Shanazi, 2020; Burbano & Meredith, 2021; Su et al., 2016). Therefore, to ensure the effectiveness of the capital, the government should play a significant role in developing the capital to promote tourism development (Fairer-Wessels, 2017; Westoby et al., 2021).

Moreover, physical capital, which refers to the infrastructure that assists rural households in maintaining their livelihoods, is frequently hampered by climate change and natural disasters. Through community tourism activities, physical capital will be improved and sustained, are easily accessed individually without cooperation from others (Becker, 2017; Masud et al., 2016). Understanding how nature benefits the communities is also very important, and the value of the world's ecosystem services, and natural capital have grown in recent decades through the blue economy concept

(Phelan et al., 2020). The concept demonstrates the essential interactions between community, local economy, and coastal eco-systems in shaping the community-based ecotourism (CBE) for preserving the natural and cultural heritage of the destinations.

The ecosystem in coastal destinations benefits tourists and communities, such as food security, water quality, reduced risk, and economic opportunities such as income generation (Aazami & Shanazi, 2020). Although tourism products such as souvenirs might help generate more income, it may not increase the ability to achieve sustainable outcomes due to the seasonality of the destination (Lasso & Dahles, 2018). On the other hand, tourism participation enhances social capital, which fosters communication and networking activities, so by having a high social capital, it is easy to create new activities based on trust and assistance among neighborhoods (Ávila-Foucat et al., 2021; Su et al., 2016; Diedrich et al., 2019). Table 2.7 is the summary of livelihood assets or resources from numerous researchers and factors considered for this study which focusing in Pangkor Island as marine and coastal tourism destination.

Table 2.7
Measurement of Livelihood Assets

Measurements	**Sources**	**Definition of the measurements**	**Factors considered for this study**
Financial assets	Aazami and Shanazi (2020), Bajwa (2015), DFID (2001), Kimengsi et al. (2019), Masud et al. (2016), Scoones (1998)	Includes economic sources that enable vulnerable households and individual to generate income and make an investment which in turn ensure sustainability of livelihood outcomes.	Current source of income; extra saving and investment; other job opportunities
Social assets	Aazami and Shanazi (2020),	The social resources upon	Management of community; social

	Coleman (1988), Diedrich et al. (2019), DFID (2001), Masud et al. (2016), Tao and Wall (2009)	which people draw in pursuit of their livelihood objectives (networks, trust, membership of groups, extended families, clans, etc.)	interaction
Human assets	Aazami and Shanazi (2020), Allison and Horemans (2006), DFID (2001), Krantz (2001), Masud et al. (2016)	A combination of capabilities, skills and knowledge, and material health which enable households and individuals to make livelihoods and attain secure livelihood outcome.	Current skills; knowledge; training support; improvement possible training in tourism development
Physical assets	Aazami and Shanazi (2020),DFID (2001),Samsudin and Kamaruddin (2013), Kimengsi et al.(2019)	The required accessibilities to facilities needed by households or individuals like transportation, good housing, safe drinking water, and accessibility to medical facilities, market and schools.	Road; water supply; electricity supply; waste management; transportation system
Natural assets	Aazami and Shanazi (2020), Carney (1998),	A collection of natural resources in the physical	Environments of the islands (coastal and marine eco-

	DFID (2001), Gandarillas et al. (2016), Guerry et al. (2015)	environment which humans act upon to create livelihoods.	system); optimal resources management; traffic flow; preservation of natural resources; fisheries resources

Source: Researcher findings

The government role has not been explored in detail in this study although its role is identified in the core of SLF under 'transforming processes and structures' and it is the key and complex organization, particularly in a country (Su & Wall, 2012) which may generate additional practical insights to enhance governance processes for community participation in tourism. According to Bingen (2000), policy institutions and processes (PIPs) are classified into five categories:

I. Familia: a cultural institution which is based on ancestry or family connections and relationships;
II. Communal: a community type of institution which relies on belief and mutual trust;
III. Social; a societal kind of institution;
IV. Collective: an institution standing on contractual interest and
V. Policy and governance: an institution based on a set of rules and legislatures.

Additionally, limited access and knowledge have created a limitation to the communities to shape sustainable livelihood in the long term. Therefore, the dependency of communities on government assistance and subsidies is crucial (Bakar & Wall, 2018). Although it helps to release the burden on the communities, short-term subsidies may not build local capacities. The government should invest in lifting up the area's tourism potential, such as transportation infrastructure and facilities, which helps to open up the area so that it becomes more accessible to domestic and international tourism (Praptiwi et al., 2021). However, a limitation exists in the context of institutional support (Lasso & Dahles, 2018) due to the capacity of demand for tourism

development. Therefore, to achieve sustainable tourism development in all disciplines, there must be a collaboration between the public, private and communities (Sadalia et al., 2017).

Department for International Development (DFID) (2001) highlighted the different examples of trend, shock and seasonality depending on the nature of the destination characteristic (Table 2.8)

Table 2.8
The Examples of Trends, Shock and Seasonality

Trends	**Shocks**	**Seasonality**
Population	Economic	Production
Governance	Conflict	Health
Resources	Natural	Employment opportunities
Technologies	Crop/livestock health	Prices

Source: DFID (2001)

The challenges of vulnerability, such as remoteness, insularity, natural catastrophe proneness, and competition for limited resources, directly impact livelihood sustainability in small island, coastal and marine destinations (Turvey, 2007). If the pressures are not addressed well, they will lead to resource changes and threaten the environment and local community groups. Albasri and Sammut, (2021) discussed vulnerability in small island in three different contexts: seasonality risks, trends, and shocks in three household groups (fisher, fish farmer and ecotourism operators). The effects of seasonality vulnerability risks on these household groups were significant due to the nature of the small island's environmental conditions. However, even though the risk is there, the small-scale fish farmers have shown a good sustainability index value which is comparable to small-scale fishers and tourism operators' groups.

Meanwhile, Fischer et al. (2021) assessed the vulnerability context, including trends (population), shocks (conflict area and health), seasonality and geographical location, such as remoteness and transboundary. They found rapid population growth created pressure on the environment and the community's economy, leading to unviable livelihood strategies. On the other hand, Towner and Davies (2019) contended that internal vulnerability contexts such as policies, corruption, and tropical disease threatened community livelihoods. The result is more significant than external vulnerability, such as tourism dependency, surf seasons, political instability, natural

disasters, and global financial trends. Still, the seasonality of surfing tourism has become a source of vulnerability to the island. Kurniawan et al. (2016) mentioned the extensive use of tourism is the main reason for the vulnerability existence. Due to its direct negative effects and the decline in environmental quality, tourism is the only factor that stresses the island's ecosystem. Based on the review above, the vulnerability exists in different contexts due to different cultures, ethnic, economic activities, and environments of the destinations (Lim & Mansur, 2015). The small island, coastal and marine destinations are highly dependent on tourism as the main economic contributor to community's livelihood due to limited resources as well as being highly exposed to vulnerability (Porter et al., 2015; Su et al.,2016) which leads to the different strategies or diversification to overcome the challenge.

In addition, Masud et al. (2016) defined livelihood strategies as activities that generate income and will also introduce new livelihood sources or diversification (Tao & Wall, 2009). According to a study by Fischer et al. (2021), limited livelihood opportunities are available on the island destination. The decrease in their natural resources also leads to other livelihood options such as fishing and small-scale trade. To overcome the issue, a long-term alternative can be implemented such as ecotourism, which helps the community generate new income and employment (Kunjuraman, 2020). However, lack of raw materials, skills, financial capital, and market access are becoming the main obstacles to achieving the livelihood diversification strategies in that particular destination. Similarly, a study by Bakar and Wall (2019) suggests that ecotourism could become an alternative livelihood in the marine park area and a livelihood strategy for the local communities, such as utilising natural resources and traditional lands or sea, offering access to their distinct way of life in order to produce income from ecotourism. In that case, appropriate training and education are essential to creating such opportunities.

On the other side, livelihood projects are essential for sustainable development in coastal destinations, reducing the dependency on coral reef resources due to fishing activities (Lowe & Tejada, 2019). The project utilises the fishers' daily skills that change their livelihood strategies. They utilised the existing assets and infrastructure with coastal land owned, which also helped remove the cost of purchasing expensive equipment. It achieves the destination development goal of creating income as an alternative livelihood to lessen reliance on depleted fishing (Roe et al., 2015). The role

of the government in raising awareness among communities is essential as it helps to lift the community out of poverty and livelihood strategies for sustainable development (Xiao et al., 2018). However, community participation in tourism development as a focal development is crucial to ensure that the economic development of resident's quality of life is improving (Jaafar et al., 2015). As a result, the probability of going out for work is lower, and more household participation can lead to other choices of livelihood strategies.

According to DFID (1999), livelihood outcomes are the achievements of livelihood strategies. Kimbu et al. (2022) found tourism provides some opportunities for fishing-dependent communities and outlines some avenues for stronger collaboration, particularly by focusing on culinary tourism, which leads to individual pride and belonging as well as community well-being. Even though the future of fishing has grown uncertain for a few fishers, they have effectively shifted into hospitality and tourism employment. Similarly, a study by Aazami and Shanazi (2020) where the communities of the destination are satisfied with the development that creates higher tourism job employment, expansion of facilities and infrastructure, which leads to more economic sustainability and food accessibility. However, a study by Bakar and Wall (2019) encountered contradictory results. Even though ecotourism development potentially improves the community's livelihood, the local communities are not involved in tourism. Nonetheless, they have a positive attitude towards incorporating ecotourism into their daily lives and believe that it can increase income and provide better jobs for the young generation.

Based on the past study review, this study classified the research findings into various categories of sustainable livelihood approaches in the context of coastal and marine tourism destinations and development. Furthermore, in Malaysia setting the study focusing on how the tourism development influence the sustainable livelihoods of the community in coastal and marine destination is still scarce. Therefore, there is a need to explore tourism development in this context specifically incorporating blue economy concept into the model.

Table 2.9
Summary of Past Studies on Sustainable Livelihood Practices in Marine and Coastal Tourism Destination Development

No	Authors	Year	Setting	Country	Subject theme	Sustainable livelihood practices examined
1	Albasri & Sammut	2022	Mariculture	Indonesia	SLF composite values	Livelihood sustainability of the small-scale fish farmer group is comparable to small-scale fisher and tourism operator groups.
2	Kimbu et al.	2022	Rural tourism(coastal)	Padstow (UK) and Paternoster (South Africa)	Sustainable livelihoods and well-being	Tourism does provide some opportunities for fishing-dependent communities and outline some avenues for stronger collaboration, particularly by focusing on culinary tourism
3	Fischer et al.	2021	Island	Philippines	Vulnerabilities and shock	Status of socio-economic and natural assets sustainable livelihood interventions High potential for eco-tourism as an alternative livelihood
4	Westoby et al.	2021	Island tourism	Indonesia	Sustainable development	Human capital development in regional areas is needed to avoid tensions from top-down, elite-led development, as well as training to achieve sustainable livelihood outcome capital
5	Praptiwi et al.	2021	Island tourism	Indonesia	Tourism-based livelihoods	Adoption of tourism-based livelihoods on small islands (Governance system)
6	Burbano & Meredith	2021	Island tourism	Ecuador	Livelihood diversification	Resource-based livelihood diversification from the tourism growth (fishing and agriculture)

7	Phelan & Ruhanen	2020	Coastal tourism (CBT)	Indonesia	Waste management, hospitality skills, and market access (support)	Community-based ecotourism supports sustainable use of marine resources and offers an entry point for low-resource coastal communities to take part in the blue economy
8	Neo et al.	2020	Coastal destination	Malaysia	Livelihood strategies (Livelihood Intensification and Livelihood Diversification)	Livelihood Strategies Determinant Framework (LSDF), which is more appropriate for the coastal fishermen of Pulau Pangkor
9	Aazami & Shanazi	2020	Wetland	Iran	Livelihood capital Livelihood strategies Livelihood level	The strategy of diversity of livelihood and income activities had greater importance for local households
10	Fabinyi	2020	Coastal tourism	Philippines	Primary livelihood activity to tourism	The growth of tourism has prompted several attempts to evict the community, including from local elites who aimed to develop resorts on the coast and a recent push by the national administration to 'clean up' tourist sites around the country
11	Towner & Davies	2019	Surf tourism	Indonesia	Positive and	Impact of surf tourism and how it improves

					negative influences on their daily live (vulnerability)	local's livelihoods
12	Bakar & Wall	2019	Marine Park	Malaysia	Institutional entitlement, which is the NCR, livelihood strategies and livelihood outcomes	The local communities are not involved in management and benefited from any tourism activities.
13	Lowe & Tejada	2019	Dive tourism	Philippines	Alternate livelihoods and Diversified livelihoods	Impact of dive tourism (provide livelihoods to reduce reliance on coral reef resources)
14	Diedrich et al.	2019	Rural (Fishing)	Papua New Guinea	Social capital	Social capital had a stronger influence relative to other forms of capital
15	Lasso & Dahles	2018	Island (fishing)	Indonesia	Poverty reduction and sustainable livelihood	Tourism development has led the local fishing community to give up their fishing to become fully dependent on selling souvenirs.
16	Xiao et al.	2018	Coastal rural tourism	China	Livelihood strategies	The effect of coastal rural tourism development on the farmers 'household livelihood strategies

17	Avila-Foucat et al.	2018	Wildlife tourism (coastal)	Mexico	Livelihood diversification	Asset determinants for those households increasing the number of economic activities and those involved in wildlife tourism.
18	Fairer-Wessels	2017	Rural Wetland	South Africa	Sustainable tourism development and the sustainable livelihoods approach	Lack of access to relevant information can be a prime reason why rural communities cannot break out of the poverty cycle
19	Sadalia	2017	Coastal	Indonesia	Capital and governance	Government intervention
20	Becker	2017	Coastal	Fiji	Disaster Risk and Sustainable Livelihoods in Two Coastal Communities	Access the different types of capital that central to the vulnerability of two coastal communities
21	Su et al.	2016	Fishing villages (coastal tourism)	China	Livelihood changes	livelihood change by tourism and the livelihoods are enhanced at the community level through the incorporation and an unequal distribution of tourism benefits was found where the poor were largely excluded due to financial limitations
22	Kurniawan et al.	2016	Coastal and marine	Indonesia	Vulnerability	Vulnerability assessment (index)

			tourism			
23	Wachirasirodom & Tadanithi	2016	Coastal	Thailand	CBT and Sustainable livelihood	Effect of Sustainable livelihood thru CBT

Source: Researcher findings

2.10 Supporting Theories (Grounded Theory)

2.10.1 Sustainability Theory

Sustainable development theory emphasizes the importance of meeting the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable livelihoods theory, on the other hand, focuses on the ability of individuals and communities to maintain their standard of living over time, while also preserving the natural resources and ecosystems on which they are dependent on. It is obvious that the term "sustainability" emphasizes the preservation of beneficial features of natural and/or social conditions, as well as the improvement of such conditions, including the status of natural resources, when possible. It should be noted that "sustainability" is a larger notion than sustainable development. There are several linkages between sustainable development theory and sustainable theory. One of the key linkages is the recognition of the interconnectedness between social, economic, and environmental factors (World Commission on Environment and Development (WCED), 1987). Both theories acknowledge the importance of considering the impacts of human activities on the environment, as well as the social and economic consequences of environmental degradation. As the sustainability of many destinations' economies, especially islands, are dependent on tourism, planning and management of the destination are needed. Bramwell and Lane (1993) and Ionnides et al. (2001) believe that sustainable tourism is the responsibility of all stakeholders, and because of this, there is a need to understand the stakeholder roles and their role in sustainable practices. Even though small island states are diverse, they have unique characteristics that make them more vulnerable to unsustainability, and their social realities put them in danger of environmental degradation. Small island states are always thought of as more vulnerable to environmental pressures and global climate changes, especially since resources scarcity puts them at greater risk to natural disasters (Intergovernmental Panel on Climate Change) (IPCC), 2022) and creates limitations on natural resources and human capitals as well as lack of diversity and alternatives (Baldacchino & Veenendaal, 2018; Connell, 2018: Moncado et al., 2018).

2.10.2 Stakeholder Theory

As the sustainable livelihood approach focuses on engaging stakeholders, it is also necessary to understand who the stakeholders are in an island destination (Dodds & Graci, 2012). There are numerous discussions on integrating stakeholders in the tourism development process. Stakeholder theory has evolved over the years to explain the stakeholder-organization relationship. The intention has turned towards stakeholders' identifications, responsibilities, and power in order to understand the influence of stakeholders (Donaldson & Preston, 1995; Mitchell & Agle et al., 1997). The organizational setting of a company can be similar to that of an island as islands are also groups of resources just like companies (Ryan, 2002). For long term viable management of an island destinations, it is essential to understand the views of stakeholders as they can motive or impede sustainability in organizations (competitive advantage, regulatory compliance, economic considerations, etc) (Bansal & Roth, 2000; Carroll, 2000; Lantos, 2001). A stakeholder is defined as:

> *Any group or individual who can affect or is affected by the achievement of an organization's objectives. Thus, a group or individual qualifies as a stakeholder if it has a legitimate interest in aspects of the firm's activities and has either the power to affect the firm's performance or has a stake in the firm's performance. (Freeman, 1984:55)*

Defining stakeholders is a way to broaden management's vision of its roles and responsibilities beyond the profit maximization function to include all interest and claims of non-stockholding groups. Stakeholder theory does not simply describe existing situations or predict cause-effect relationships, it also recommends attitudes, structures, and practices which, collectively, constitute stakeholder management (Cheyne & Barnett, 2001; Donaldson & Preston, 1995). Several empirical studies have been conducted to explore the relationship between stakeholder influence and sustainability in an organization (Alvarez Gil et al., 2001: Bansal & Roth, 2000; Berman et al., 1999; Cheyna & Barnett, 2001; Clarkson, 1995; Flagestad, 2001; Henriques & Sadosky, 1999). According to stakeholder theory, organizations carry out activities to appease their main stakeholders. By satisfying these stakeholders, support and resources

are acquired which ensures the long-term success of the organization (Alvarez Gil et al., 2001). The theory identifies that organizations or destinations will adopt sustainability if stakeholders demand it. Sautter and Leisen (1999) use stakeholder theory as part of a tourism planning model. The authors developed a tourism stakeholder map adapted from Freemans (1984) model to include the salient stakeholders in the tourism industry.

2.11 Research Proposition Development

In this current study, the conceptual framework formation is based on Sustainable Livelihood Framework (SLF). It has been studied by most scholars and it is an appropriate framework and tools for community related studies and people-centered development approach (Chambers,1986; DFID,1999) and different factors that contribute to livelihoods including natural, social, financial, human, and physical capital are considered. Moreover, the advantage of using the SLF is, it has a holistic approach which can be applied in community research particularly in rural areas and a tool to uplift the standard of living on community's development (Kunjuraman, 2022). In the context of marine and coastal destination development the SLF is used to develop sustainable livelihoods that support both economic growth and environmental protection while also empowering local communities to take ownership of their own livelihoods. It is also noted, by using this framework the capital resources in the SLF as well as process and structures are visible and empirically tested through case studies from Pulau Pangkor, Malaysia. The synthesis process is initiated by examining the study's objectives on the three previous studies. A comparison of the three studies is shown in the Table 2.10 below:

Table 2.10
Synthesis: Compare and Report

Items	Research 1	Research 2	Research 3
Authors	Su et al. (2016)	Kunjuraman (2022)	Phelan et al. (2020)

Issues	The interactions of fishing and tourism as livelihood strategies are complex and may generate unexpected outcomes	None focusing on Community Based Eco-tourism (CBE) development in developing countries especially in Malaysia	Economic development is a challenging balance between protecting marine biodiversity and maintaining sustainable and direct access to ecosystem services.
Concept	Sustainable Tourism	Sustainable Livelihood	Blue economy
Data Collection Technique	-Face-to-face semi-structured interviews -observation -Secondary data review	-In-depth interview -Field observation	-In-depth semi structured interviews and unstructured interviews -Direct observation
Findings	Different types of tourism participation exist. Tourism generates extra income, changes in socio-economic, political, and climatic environments.	Transformed the local communities as ecotourism entrepreneurs and novel socio-cultural capital	Three key areas: waste management, hospitality skills, and market access (focus on 4 capitals: natural, social, built and human)

Source: Researcher findings

The selected articles have made studies related to sustainable livelihoods in coastal and marine destination settings. These studies can be considered as a base of this study model since there are the elements of sustainable livelihoods in them and similarity of the geography and characteristic. The first study is by Su et al. (2016) and it is related to the island destination development (see Figure 2.6). The main objective of the study is to compare tourism-induced livelihood changes at fishing communities and to assess whether these changes have enhanced or diminished the sustainable livelihoods. There are huge growth happening to the island specially in tourism development which have created changes in all five categories of capital (natural, physical, financial, human capital, social and cultural). Additionally, tourism, fishing, and mariculture are highly seasonal and vulnerable livelihood activities that are also influenced by socioeconomic, political, and climatic changes. Although tourism appears to be a handy and effective source of income for island fishing communities, it would be more beneficial to incorporate tourism into current livelihood strategies rather than completely replace them. However, this study did not focus on how to merge tourism into livelihood strategies. That is why researcher will focus on incorporating the element. of CBT into the livelihood strategies since it has not been given special attention especially in Malaysia setting.

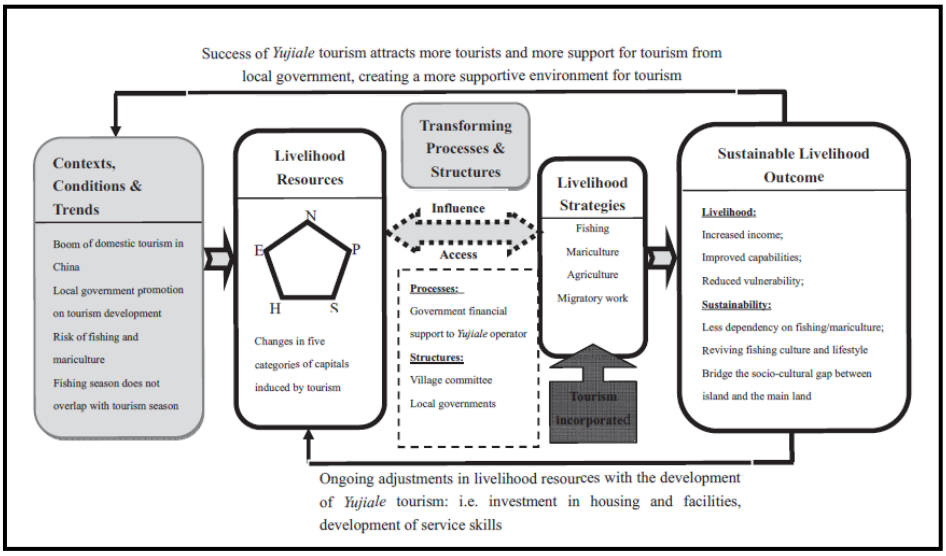


Figure 2.6 Sustainable Tourism Livelihood Framework

Source: Su et al. (2016)

The study by Kunjuraman (2022) can help to support how community-based eco-tourism can be part of a multi-livelihood strategy to improve their sustainable livelihood outcomes. Even though the study setting is different which the study focuses the rural villager in Sabah, Malaysia but it highlighted the importance of integrating community-based ecotourism (CBE). According to Kunjuraman (2022) one way to create resilient economy of the community is to embed strategies such as community based eco-tourism. Community based eco-tourism is one of the mechanisms for social change and livelihood strategies specifically in rural destination. The main objectives of the study are to examine the livelihood changes brought by ecotourism and its outcomes which may lead to future sustainability. This study focuses on integrating the community-based ecotourism (CBE) into the sustainable livelihood framework and it was revealed through this approach that it transformed the local community into ecotourism entrepreneurs to generate income to secure their livelihoods. Thus, making them more independent in generating other income resources and not heavily relying on primary resources as well as long-term government or third parties' assistance. Hence, sustainability is necessary for social entrepreneurship and as a mechanism for social and economic change, out from the trap of poverty (Rokisa, 2019) and, sustainability is closely linked to sustainable development. Unfortunately, to sustain the community entrepreneurial activities is a challenge. Kunjuraman (2020) found challenges in implementing CBE development in Malaysia. In general, the common challenges faced by local communities in Sulau and Bilit villages are related to ecotourism related issues which involve challenges in ecotourism management, youth involvement for sustainability of the projects, new ecotourism development and climate change. Therefore, it is important to assist community engaged in entrepreneurial activities, and capital is one of the essential factors in helping them in any tourism development (Ismail & Daud, 2021). Furthermore, the novel socio-cultural capital is also introduced in this study as it is essential to livelihood capital for CBE operation. In the context of ecotourism, the socio-cultural element is naturally embedded in many forms in ecotourism operation (Kunjuraman, 2020b) (See Figure 2.7).

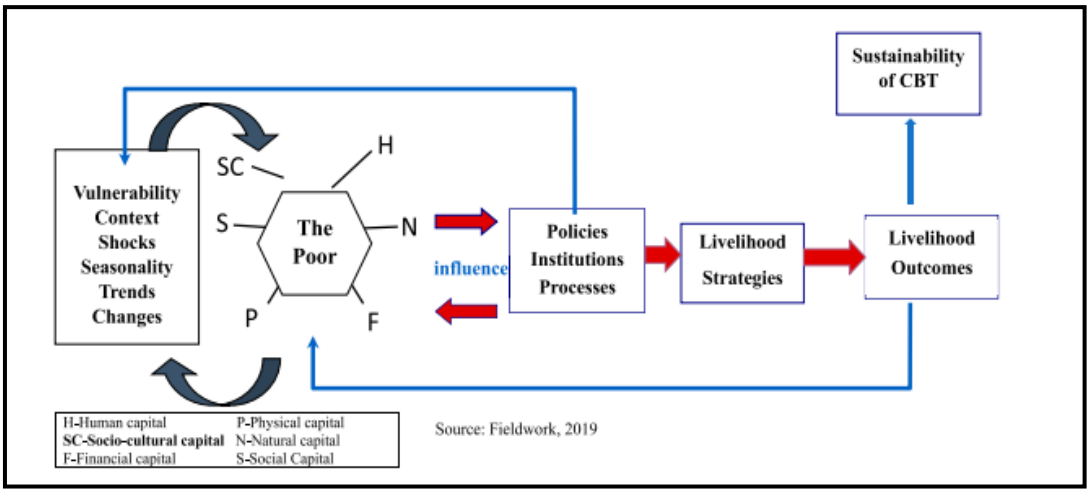


Figure 2.7 A Conceptual Framework of Community Eco-Tourism Based

Source: Kunjuraman (2022)

The next study which is closely related to the island and blue economy concepts is by Phelan et al., (2020). The study is to examine the role of community based eco-tourism (CBET) within the developing market dynamics of the blue economy. The study focuses on the CBET which supports the sustainable use of marine and resources and offers an entry point for low-resource coastal communities to take part in the blue economy. By implementing a multi-livelihood strategy through the Blue Economy concept several benefits for the community livelihood sustainability outcomes were discovered. It includes diversification of income sources and reduces the dependency on a single income and increasing their resilience to economic shocks and disruptions. The study framing the components of the blue economy through ecosystem services approach (ESA) (see Figure 2.8) and highlights the vital role of marine ecosystems in sustaining communities and local economies which are affecting human wellbeing. The ecosystem service literature has formed the concept that benefits from healthy ecosystems, sustains human wellbeing and nature, and therefore, should be incorporated into decision making so they can be properly valued and maintained (Braat & De Groot, 2012; Costanza et al., 2017).

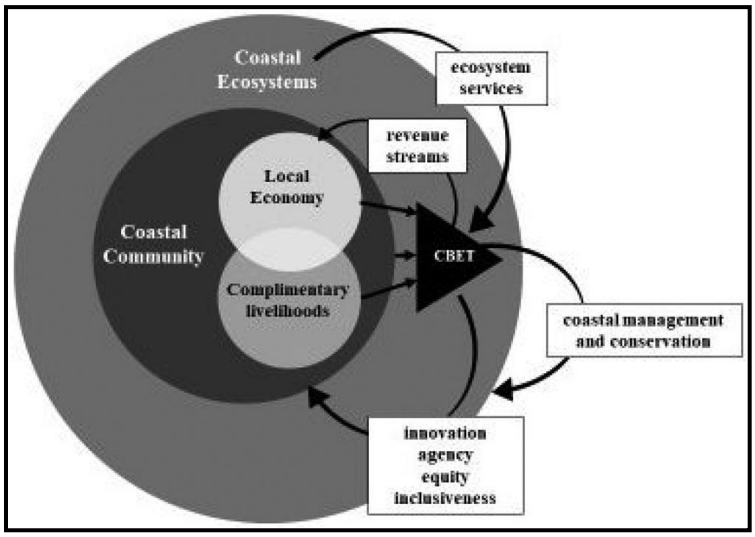


Figure 2.8 Community Based Ecotourism (CBET) in the Blue Economy

Source: Phelan et al. (2020)

The development of coastal ecotourism provides crucial livelihood alternatives for many rural and low-resource communities. Diversification into tourism provides various avenues to complement primary income for seasonal sectors such as fishing and farming (Ford & Acott, 2015). Fishermen and farmers, for example, can choose to supplement their income from fishing or farming by developing new tourism services, events, and attractions, rather than replacing their major source of revenue (Gao & Wu, 2017; Spenceley, 2012). Study by Phelan et al., (2020) also mentioned cultural influences, lack of skills and human resources are the main concerns for the islands. Therefore, the assistance is needed to develop a proper planning for CBET. Masud et al. (2016) reported that tourism development in the islands has resulted in economic development, with the respective communities' standard of living improving the physical and social assets which is crucial mechanism for economic development. However, study by Phelan et al. (2020) only applied the vital role or higher-level grouping of marine ecosystem through four capitals namely natural, social, built (physical), and human capital while avoiding financial capital. Ecosystem services do not simply flow to human well-being without the dynamic linkages of natural, human, built, and social capitals (Constanza et al.,2014). Therefore, it is crucial to have interdependent relationship between sustainable coastal management and marine

dependent industries and livelihoods (Phelan et al.,2020) and by focusing on these four strong capitals which are most related to coastal and marine destination. As mentioned by Donohoe and Needam (2006), the relationship between natural resource conservation and the competitiveness of an ecotourism destination is crucial. Besides that, this study did not show how clearly the interrelation to the wellbeing which one of the indicators of livelihood outcomes.

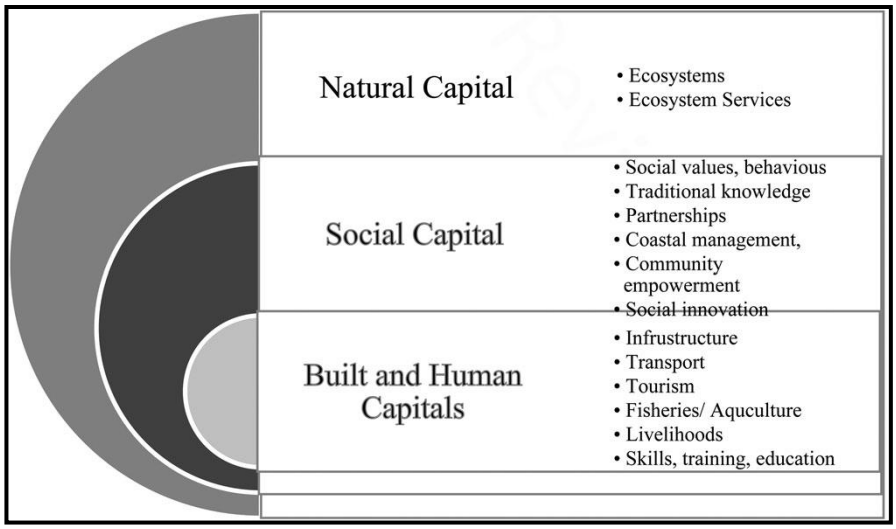


Figure 2.9 Applying ESA to Frame Components of the Blue Economy

Source: Phelan et al. (2020)

The study by Phelan et al. (2020) and Su et al. (2016) will be a base of formulating a model for this study since the conceptual framework is quite comprehensive and effective to be applied in Blue Economy concept. Based on the problem statement and the study's objectives, a model should be formed to assist the local community of marine and coastal destination development or beneficiaries. Therefore, the development of the research model is as follow (Figure 2.10). In this proposed framework, "capitals" or "assets" are the central core and the interaction between different assets of livelihood are key elements to convey deeper insight of sustainable livelihood (Aazami & Sharnazi, 2020; Fang, 2013; Zenteno et al., 2013). The model proposed highlights the critical significance of community-based ecotourism

in ecosystem protection, livelihood diversification, and benefit distribution and the summary of the model as of Table 2.11.

Table 2.11
Summary of Model

Items	**Research Objective 1**	**Research Objective 2**	**Research Objective 3**
Authors	Su et al. (2016)	Kunjuraman (2022)	Phelan et al. (2020)
Issues	The interactions of fishing and tourism as livelihood strategies are complex and may generate unexpected outcomes	None focusing on Community Based Eco-tourism (CBE) development in developing countries especially in Malaysia	Economic development is a challenging balance between protecting marine biodiversity and maintaining sustainable and direct access to ecosystem services.
Concept	Sustainable Tourism	Sustainable Livelihood	Blue economy
Research Objective	RO1 To explore stakeholders' perspective on how current tourism development policy in Pangkor Island affect the island's	RO2 To investigate stakeholders' perspective on the potential changes in developmental policies in support with Pangkor Island's community	RO 3 To propose multi-livelihood strategy through the Blue Economy concept in enhancing the Pangkor Island's community livelihoods strategies and their

	community livelihood assets.	livelihoods strategies and their livelihood outcomes.	livelihood outcomes.

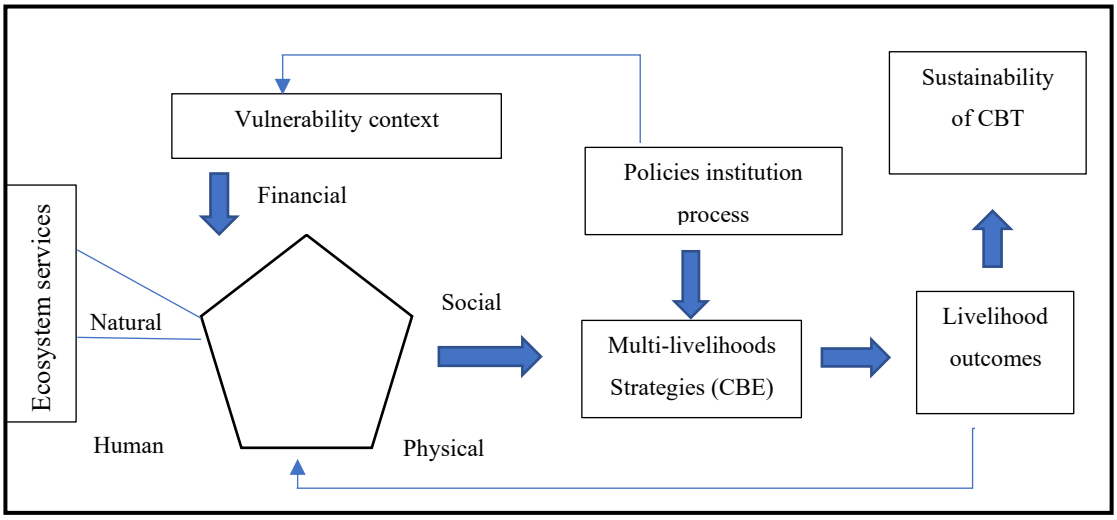


Figure 2.10 Proposed Sustainable Livelihood Model for Marine and Coastal Tourism Through Blue Economy Concept

2.12 Chapter Summary

In a nutshell, this chapter has thoroughly reviewed prior relevant literature Formulating a sustainable livelihood model for marine and coastal destination development in Pulau Pangkor, Perak is significant in helping the local community of the island. Therefore, the present study attempts to fill the gap in the context of sustainable livelihood in tourism studies since there is limited empirical research that incorporates sustainable livelihoods in coastal and marine tourism destinations' development. Hence the present study intends to fill the gaps by conducting empirical research in Malaysia context. The next chapter focuses on research methodology which includes research design, data collection, and data anal

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, the descriptions of the methodology of the research are provided. The main purpose of the study is to develop a comprehensive sustainable livelihood model for small island tourism projects in the context of marine and coastal destination in Pulau Pangkor, Malaysia through the Blue Economy concept. The chapter starts with the overall description of research design and the approach that the researcher will apply in the study, explanation of the source of data such as primary and secondary data, population and sample size, data collection procedure and lastly data analysis plan. The next section will be a closing summary to conclude the chapter.

3.2 Research Design

In this research, a qualitative approach employed to gain a better understanding of sustainable livelihoods of rural communities in marine and coastal tourism destinations. According to Creswell (2014), a qualitative approach is suitable for exploratory research where the aim is to understand and gain insight into a particular phenomenon. Through this approach, the researcher can gather rich and detailed data that can be used to develop a model that accurately represents the sustainable livelihoods of the community. As noted by Daud (2019), a basic research approach is well-suited for this study as the objective is to formulate a sustainable livelihood model for rural marine and coastal tourism destinations. The process of formulating a model requires an in-depth understanding of the variables and factors that influence sustainable livelihoods. This approach allows for the identification of patterns, relationships, and trends that can be used to build a comprehensive model that accounts for the complexity of sustainable livelihoods in these destinations. Moreover, formulating a model is crucial in qualitative research, as it helps to identify the key variables and factors that influence the phenomenon under investigation. According to Mikkelsen (2018), model building is an essential component of qualitative research as it allows researchers to

develop a conceptual framework that can be used to guide data collection, analysis, and interpretation.

There are a few justifications of choosing qualitative approach for this study such as the ability in providing an in depth understanding of specific area of investigation and has the capacity of processing a comprehensive information or behaviors rather than just to arrive at by means of statistical procedures (Merriam, 2009). Besides, the researcher is also able to carry out an in-depth investigation into the issues from fewer people and procedure descriptions of situations, events, people, interactions and observed behaviors' though direct quotations (Sekaran & Bougie, 2010). In addition, the study is subjective in nature and involves examining and reflecting on perceptions and able to gain an understanding of the social and human activities (Smith et al., 2012) and lastly, to understand the rich, complex and idiosyncratic nature of human phenomena (Mason,1996; Sekaran & Bougie, 2010).

Quantitative or mixed methods approaches were not selected because they may not sufficiently capture the depth and complexity of community perceptions and lived experiences that are central to understanding sustainable livelihoods in the context (Bryman, 2016). While quantitative methods often focus on measuring variables and statistical relationships, they are less suited for exploring the social and environmental dynamics involved (Patton, 2015). Mixed methods, although valuable in some cases, were beyond the scope of this study given the exploratory nature and resource constraints, where an intensive qualitative inquiry was prioritized to develop a rich, contextualised model (Creswell & Plano Clark, 2017).

Creswell and Creswell (2018) describe five approaches in qualitative research: narrative research, phenomenological research, grounded theory, ethnography, and case studies. In addition, Marshall and Rossman (2016) classified the type of qualitative research into research concentration which if the focus is on society and culture, it will be an ethnographic approach. They also added, if the study focuses on individual life experiences, then the phenomenology will be used, if the researchers focus on lectures and text, the most appropriate approach can be used is sociolinguistic. If the study aims to generate the theory, it will be grounded theory and if it is focused on the context and dynamic interaction, it will be case studies (Marshall & Rosmann, 2016).

Furthermore, the researchers contended that basic qualitative research is the most common form and aims to understand how people make sense of experiences

(Merriam & Tisdell, 2016). Additionally, the method of study used depends on the study's objective therefore basic research is suitable to formulating a sustainable livelihood model for marine and coastal community. Formulating a model attest to a qualitative study's need for a model building approach. According to Daud (2019), basic research is determined by the research aims and is linked to the title, such as describing, modelling, discovering, formulating, characterising, and creating. Black (1994) mentioned that the benefit of qualitative study is more significant when the subject of the study is uncontrollable and unclear. As for this study, the researcher used the qualitative research method due to the nature of research which is exploratory, and its objective is to create a new model. Creswell and Creswell (2018) mentioned that in a qualitative project, the researchers describe a research problem that can be understood by exploring concept or phenomenon. They also stated that qualitative research is exploratory, and that it is used by researchers to examine a topic when variables and theoretical foundations are unknown (Creswell & Creswell, 2018).

Previous studies and practices of helping community increasing their value were conducted by government agencies or NGOs. However, the limited theoretical basis has led to qualitative studies. For example, Kunjuruman (2022) study focuses on rural development in village areas through ecotourism project which local communities are the central focal of the Community-based tourism (CBT) value, and it examines the practices of providing assistance by third parties. The researchers intend to get in-depth information to understand how participants interpret their experience through the development of the destinations. There are certain types of qualitative research in Figure 3.1 that are typically found in the social sciences and applied practises, according to Merriam and Tisdell (2016). They noted that the most basic sort of research is to discover how people make sense of their experiences. Therefore, data are collected through interviews, observations, and documents and analysed inductively to address questions presented.

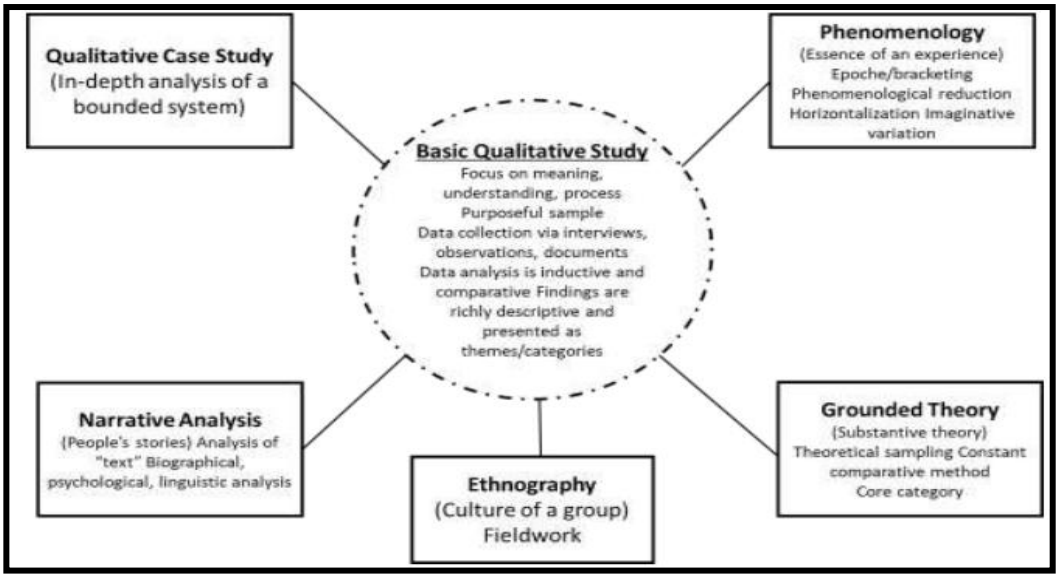


Figure 3.1Types of Qualitative Research

Source: Merriam and Tisdell (2016)

Marshall and Rossman (2016) suggest that the phenomenological approach seeks to explore, describe, and analyse the meaning of individual life experience that has strong philosophical underpinnings and typically involves conducting interviews (Giorgi, 2009; Moustakas, 1994). Based on the definition by previous literature, the research that will be conducted by the researcher does not explore and describe the participants' experiences and does not lead to the purpose of phenomenological research. Therefore, the research that will be conducted will not relate to this approach.

According to Charmaz (2006), the grounded theory method is a set of principles and practices rather than a prescription or package. The grounded theory technique entails following systematic yet flexible criteria for gathering and analysing qualitative data to developing ideas that are 'based' in the data itself (Charmaz, 2006). Rather than depending on social science at the time, grounded theory aims to create explanations of social processes using hindsight, from evidence to theory (Marshall & Rossman, 2016). This research does not aim to produce theories that explain the interactions or contexts of interest. As a result, grounded theory is not the best method for conducting this research.

Ethnography approach is not suitable for this research because it does not focus on the whole group of cultural sharing. Creswell (2013) defines ethnography process

involves extended observation of the group, often through participant observation, where the researcher dives into people's daily lives and observes and interviews the group of participants. It is similar with case study where the researcher does not intend to adapt this approach because the study does not focus on specific cases, and it is not a complex social phenomenon. According to Yin (2018,2014), case study research appears from the desire to understand complex phenomena, and it allows investigators to focus on cases and maintain a holistic and real-world perspective.

Next, narrative research focuses on one or more individuals, collecting data through the collection of their stories, describing individual experiences, and chronologically structuring the significance of those experiences (Creswell, 2013: Riessman, 2008). According to Marshall and Rossman (2016), narrative research assumes that people construct their reality through narrating their stories and the information was often retold by the researcher into a narrative chronology (Creswell & Creswell, 2018). As for this research, it does not focus on individuals alone but focuses on the social context, particularly in understanding how community livelihoods are developed and sustained. The interpretivist stance allows the study to capture the realities of multiple stakeholders while situating their narratives within the broader socio-economic and environmental context of Pangkor Island.

The basic interpretative study is the most prevalent 'kind' of qualitative research in applied practise domains such as education, administration, health, social work, counselling, and business. Merriam and Tisdell (2016) prefer to refer to this form of research as fundamental qualitative research because all qualitative research is interpretive and the term "generic" does not convey a definite definition. In brief, all qualitative research is concerned in how meaning is produced and how individuals make sense of their lives and surroundings. The goal of basic qualitative research is to discover and interpret this meaning (Merriam & Tisdell, 2016). Therefore, the study conducted by using a basic qualitative study since researchers are interested to know: (i) how participants interpret their experiences, (ii) how they construct their world, and (iii) what significance is attached to their experiences.

To collect data in qualitative research, the most comment tools used are unstructured interviews and observations and followed by group discussions, site visits, and many more (Tobi, 2017). However, a face-to face interview applied in this study to gather the data. The information on livelihood capitals, strategies and outcomes will be

gathered through in-depth interviews with participants. According to Taylor et al. (2016), three categories of closely related qualitative interview research can be separated. The first is a life history, sometimes known as a social autobiography and this records the essential experiences in a person's life and defines those experiences in life history. Then, the second form of in-depth interview is designed to learn about events and actions that are not readily visible. The person being interviewed is the informant in the most fundamental sense and they act as observers (eyes and ears in the field) for researchers. Finally, a qualitative interview seeks to provide an overview of diverse situations or individuals. When compared to participant observational research, interviews allowed for the examination of many people in a relatively short period of time (Taylor et al., 2016). Therefore, in this present study, the third type of interview used for data collection which is semi-structured interview among local communities of the destination and agencies that helped them. The interview questions informed by elements of Sustainable Livelihood Framework. Interviews have been widely adopted in livelihood research on tourism and resident communities (Kunjuraman, 2022; Snider, 2012; Su et al., 2016; Tao & Wall, 2011; Xiang, 2009) where an understanding or organizational structures, policy initiatives and their various outcomes are sought.

According to Merriam and Tisdell (2016), qualitative researchers are interested in understanding how participants interpret their experiences, how they construct their reality and what significant they assign to their encounters. In addition, data collected through interviews, observations, and documents and analyse inductively to address the research questions presented (Merriam & Tisdell, 2016). Interviews with relevant government agencies conducted in this study to allow interview participants to debate issues and inductively reveal their perspective on the phenomenon of tourism in their destination (Creswell, 1994). In addition, relevant documents and government policy have been referred to strengthen the argument in this study. Finally, observations are carried out to get an accurate picture of what is happening.

Table 3.1
Summary of Research Design of the Study

Research Design	**Criteria Identification**

Data collection	- Review journal articles, reports, and proceedings. - Qualitative method: In-depth semi-structured interviews - Bahasa Malaysia (national language of Malaysia) and English
Respondents	- Local Communities involved in direct tourism business. - Tourism business players - Government agencies (Manjung Municipal Council (MMC) officer, Tourism Perak officer, Majlis Kerajaan Tempatan Negeri Perak officer - Academia
Data analysis	- Criteria compiled, tabulated, and categorized based on several descriptions. - Brainstorming and discussion - Use of experts to validate criteria. - Thematic Analysis

3.3 Study Setting, Sample Size, and Sampling Technique

3.3.1 Study Setting

This study conducted in Pangkor Island, Perak which the development focuses on selected site and location (see Table 3.2, Table 3.2 and Figure 3.2). According to Noor et al. (2022), The Malaysian government has been heavily promoting Pulau Pangkor as a low-key tourist destination, but fisheries and fish products remain the main industries (Ismail et al., 2013) which made up 90% of Manjung Selantan's output. On top of that, there is a seasonal trend for tourist arrivals, and tourist activities are concentrated along the beach areas, particularly Teluk Nipah, Pasir Bogak, and Pangkor Laut. For small islands like Pulau Pangkor, the tourism industry could be one of the main contributors to its socioeconomic development.

Table 3.2
Summary of Tourism Site and Location of Tourism Development in Pangkor Island

Tourism Site	Focus area	5 Main Village	Remarks
Pantai Teluk Nipah	Eco-tourism (coastal	Kampung Teluk	C, D, and E

Pantai Teluk Dalam	tourism) Accommodation Water sports	Dalam	
Pantai Teluk Belanga			
Pantai Pasir Bogak	Duty free		F
Pangkor Town		Kampung Masjid	
Fisheries ventures	Maritime (marine tourism)	Kampung Sungai Pinang (kecil and besar)	B
Masjid Al-Khairiah	Cultural and heritage		
Historical rock		Kampung Teluk Kecil	A
Masjid Terapung		Kampung Teluk Gedung	H
Dutch Fort			

Source: Researcher findings

Table 3.3
Study Site According to Sector Based on Blue Economy Concept

Description	**Related Sector**	**Study Site**
Capture fisheries	1. Marine living resources (Primary production) 2. Food, nutrition, health, and ecosystem services	Kampung Sungai Pinang
Prepared meals and dishes		
Other food products	1. Marine living resources (processing and distribution)	

Wholesale of other food including fish, crustaceans, and mollusks		
Service activities incidental to water transportation	2. Port activities	Pangkor Town
Sea and coastal passenger water transport	3. Maritime transport (Shipping and transport)	
	4. Coastal tourism (transport)	
Hotels and similar accommodation	5. Coastal tourism (accommodation)	
Holiday and other short-stay accommodation		
Retail sale of automotive fuel in specialized stores (for motor vehicles and motorcycles)	6. Coastal tourism (transport)	Kampung Teluk Dalam Kampung Masjid
Retail sale of cultural and recreation	7. Coastal tourism (Other expenditures)	

goods in specialized stores	
Retail sale of other goods in specialized stores	
Food and beverage service activities	

Source: Researcher findings

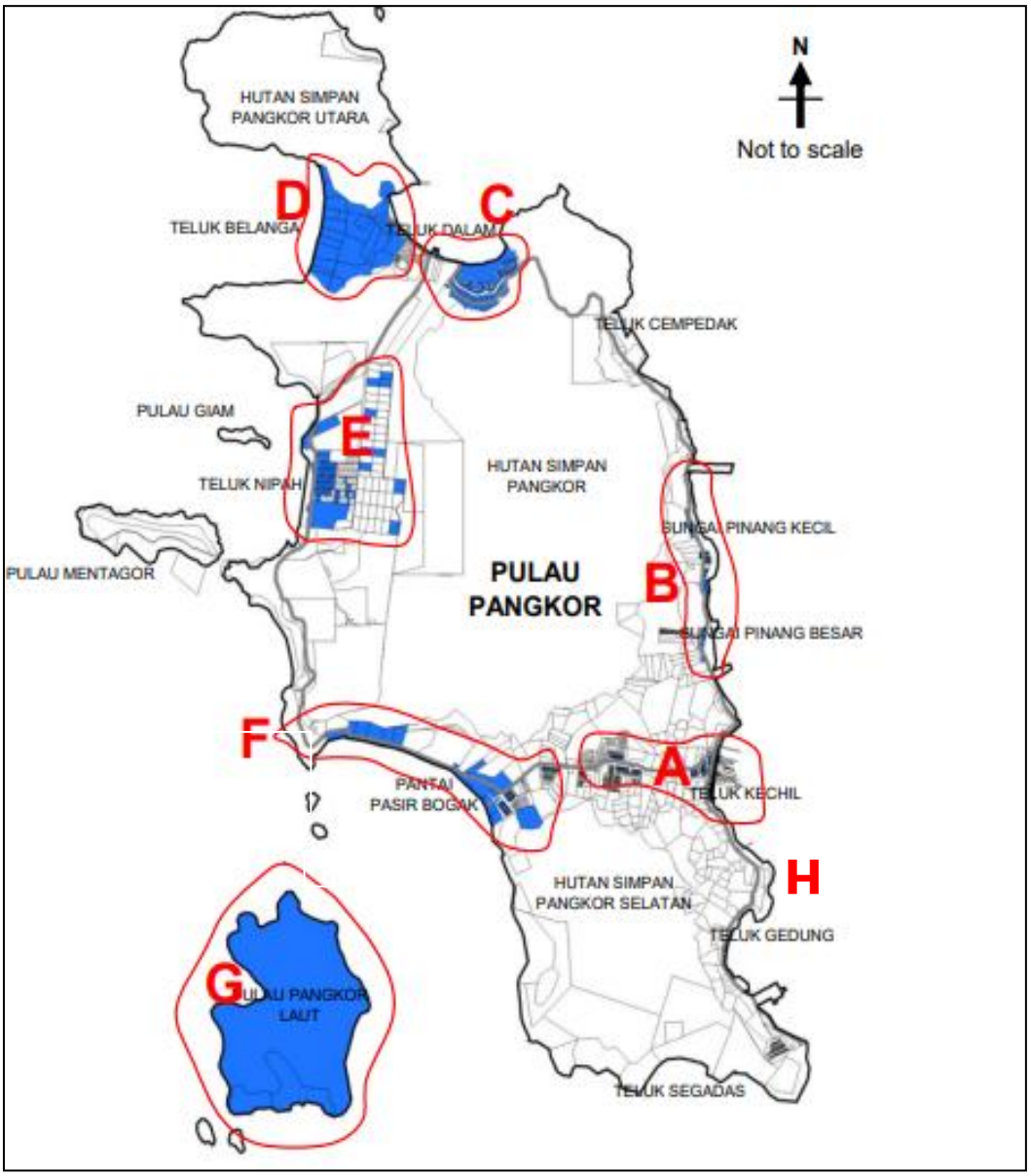


Figure 3.2 Tourism Development in Pangkor Island

3.3.2 Sample Size

According to Anderson (2010), qualitative research needs a small sample because of the detailed and intensive work required for the study. He added that unlike the quantitative research method, sample sizes are not calculated using mathematical rules, and probability statistics are not used. Therefore, qualitative researchers should describe their sample characteristics and relevance to the broader population (Anderson, 2010). There are no specific guidelines for determining the number of participants. According to Crouch and McKenzie (2006), a total of no more than 20 respondents was

sufficient for the interview activity. This number can help to strengthen the relationship between the researcher and the respondent and obtain valid data. This figure also generally affects the honesty and the respondents' answers (Crouch & McKenzie, 2006). About 12 participants were a good fit for the homogeneous (same or similar) group (Guest et al., 2006). For Latham (2013), 14 CEOs who succeeded in leading their organizations to the highest awards were selected in a qualitative study. This figure is sufficient because the CEO is chosen to show the same organization and recipient of the same award (Latham, 2013). For case study, Yin (2014) suggested not to include more than four or five cases in a single study (Yin, 2014). Sekaran and Bougie (2016) mentioned that qualitative research generally uses non-probability sampling because it is not intended to draw statistical inferences. The general rule in a qualitative investigation is to continue sampling until one can no longer obtain new information or no longer gain new insights (Sekaran & Bougie, 2016). However, according to Creswell (2013), there is a general guideline for qualitative research is the sample size to collect extensive details about each site or study.

The main purpose of sampling qualitative research is to acquire rich information rather than representing the population (Gentles et al., 2015). According to Lincoln and Guba (1985), in purposeful sampling, the sample size is determined by saturation or redundancy; the sampling is ended when no new information or insights is emerging from new sampled units (Merriam & Tisdell, 2016). According to Gentles et al. (2015), sample saturation is extensively discussed in qualitative method literature because it is crucial. In this regard, Ando et al. (2014), Hennink et al. (2017), Tran et al. (2016), and Van Rijnsoever (2015), among others, provide guidelines to justify sample size determination in qualitative research.

The target population is defined with respect to the sampling unit of the study. Thus, the total of five villages selected and according to Manjung Municipal Council (2020) approximately 16,000 population were exposed to the tourism development and activities (see appendixes). There are five main villages populated on the islands, Kampung Masjid (Teluk Raja Bayang), Kampung Sungai Pinang, Kampung Teluk Gedung, Kampung Teluk Dalam and Kampung Teluk Kecil, as shown in Table 3.4.

Table 3.4
Total Population for Each 'Kampung' in Pulau Pangkor

Villages	**Household**	**Total Households**	**Total Village Population**
Kampung Masjid (Teluk Raja Bayang)	5	494	2474
Kampung Sungai Pinang	5	263	1381
Kampung Teluk Gedung	5	2160	10801
Kampung Teluk Dalam	5	122	490
Kampung Teluk Kecil	5	190	763
Total	**25**		

Source: Manjung Municipal Council (2020)

While the study intends to further examine the issue on tourism development among the local communities through their participation, attaining feedback from involved stakeholders is essential so that the issue can be understood holistically. The feedback from business players, the government agencies (the Manjung Municipal, Tourism Perak etc), an academia (expert in tourism development) is necessary. According to Rancangan Struktur Negeri Perak 2040, there are a few important agencies involving the tourism development of Pangkor Island which will empower the development of Manjung District as Maritime Tourism Cities and Pangkor Island as a Duty-Free Island in Perak state. Besides the plan is to stimulate the economy of the local people and be able to produce more entrepreneurs based on tourism products, handicrafts, food, and accommodation (see Table 3.5).

Table 3.5
Criteria of Stakeholders Profile

Stakeholders	**Numbers of informant**	**Stakeholders Profile**
Local community	5	Direct tourism business
Government Agencies	3	1. Manjung Municipal 2. Tourism Perak 3. Majlis Kerajaan Tempatan

		Negeri Perak
Business Players	6	Tourism business player
Academia	2	Researcher in related field
Total Informants	**16**	

However, while this study targets a certain sample size for each type of informant, the actual sample size of the informants interviewed subjected to data saturation. Data saturation was monitored throughout the iterative process of data collection and analysis and was considered achieved when consecutive interviews ceased to reveal new themes, concepts, or insights relevant to the study's objectives. Specifically, after interviewing 16 participants, thematic redundancy was observed across stakeholder groups, indicating sufficient depth and breadth of data to support robust analysis. This approach ensured the sample was both sufficiently comprehensive to capture complex stakeholder viewpoints and efficient by avoiding unnecessary data collection. According to Fuchs and Ness (2015), data saturation is reached when there is enough information to replicate the study when the ability to obtain additional new information has been attained and further coding is no longer feasible. While Dworkin (2012), mentioned there is an extremely large number of articles, book chapters, and book recommend guidance and suggest anywhere from 5 to 50 participants as adequate; therefore, the number of the informants in this study is considered as acceptable and valid.

Qualitative researchers are concerned with the number of people to interview and the number of locations to visit. Thus, there is no solution for people who have a poor tolerance for ambiguity (Merriam & Tisdell, 2016). According to Merriam and Tisdell (2016), reaching saturation or redundancy means that the researcher hears the same remark or observes the same behaviour during the interview process. It's difficult to say when saturation will happen. According to Charmaz (2006), a researcher can stop gathering data when categories (or themes) are saturated. No new insights or properties are disclosed while data collection continues. The researchers have collected a sufficient sample (Charmaz, 2006).

According to Boddy (2016), saturation data does not appear to be used in calculating actual sample sizes prior to data collection. According to Bradshaw et al. (2017), data saturation can never truly be attained. Sim et al. (2018) raised concerns

about determining sample size using the saturation method for two reasons. Firstly, because of the use of questionable assumptions. Secondly, because improper methodological or statistical assumptions from quantitative research were introduced into qualitative research methods. They believe that saturation cannot be predicted since researchers do not know what their analysis will reveal until they conduct it. They contended that determining sample size is dependent on interpretative judgement in relation to the research's aim and objectives. Yet, all experts believe that determining sample size in the research proposal is essential.

3.3.3 Sampling Technique

The sampling design chosen for this study was a purposive sampling technique, which involves selecting participants based on specific characteristics of the population and the study's objectives. According to Bernard (2002), purposive sampling is the deliberate choice of participants who possess certain qualities to provide rich and diverse perspectives on the phenomenon being studied. As data is collected, the researcher engages in constant comparative analysis to identify patterns, themes, and categories that emerge from the data. Purposive sampling is commonly used in qualitative research (Sekaran & Bougie, 2016) and is limited to a specific sort of individual or group of people who can offer the required information. This sampling technique is useful when researchers seek to obtain information from participants who possess unique perspectives, knowledge, or experiences related to the research question (Sekaran & Bougie, 2016). Patton (2015) stated that purposive or deliberate sampling is often employed to reveal rich information about the issue under investigation. Thus, the researcher selects participants with the understanding that they can provide insights (Merriam & Tisdell, 2016) that can address the research questions effectively. Therefore, the inclusion criteria of the participants in this study were those who were active or involve in tourism activities or business (direct tourism) and able to communicate in either Malay or English. Secondly, had experience in their respective sector to ensure sufficient knowledge of tourism development processes and were actively involved in tourism policy and practice. Individuals were excluded if they lacked direct engagement with tourism-related activities or decision-making processes.

3.4 Types of Interview and Questions

Interviews are different from the questionnaire survey as they involve social interaction. According to Kumar (2014), interviews are a standard approach for gathering information from people in many aspects of life, collecting information through various forms of engagement with others. He defined an interview as any one-on-one conversation between two or more people for a stated purpose. It can be done in person or over the phone (Kumar, 2014). According to Sekaran and Bougie (2016), an interview is a structured, deliberate dialogue between two or more persons. According to Creswell and Poth (2018), a face-to-face interview requires both the interviewee and the interviewer to be physically present in the same room, talking via technology or on the phone. Text messaging or the online chat function can be used as a substitute to chatting (Creswell & Poth, 2018). These queries, according to Kumar (2014), can be quite versatile.

The arrangement and content of the questions are entirely up to the researcher (Kumar, 2014). Kumar (2014) also stated that the researcher is allowed to select the questions, how to ask them, and change their sequence. In contrast, the interviewer has the option to consider and construct questions concerning the subject being studied as they arise, or to be rigid and stick to previously decided questions - including terms, sequences, and method in which they are requested (Kumar, 2014). According to Creswell and Poth (2018), the primary instruments in qualitative research are researchers. They may employ tools, but the instruments developed by the researchers are open-ended questions (Creswell & Poth, 2018). Qualitative researchers collected data through document examination, observed behaviour, and interviewed participants. They did not use or rely on questionnaires or instruments developed by other researchers (Creswell & Poth, 2018).

Most notable writers distinguish between two sorts of interviews: unstructured interviews and organised interviews. An unstructured interview, according to Kumar (2014), is an accessible technique for the interviewer to obtain information from the informants. Kumar (2014) went on to say that in a structured interview, the interviewer has prepared a list of questions to ask the informants. Before the session, the questions are synchronised with the interview schedule (Kumar, 2014). Interview schedules are research tools or instruments for data collection, whereas interviews are data collection

methodologies (Kumar, 2014). According to Walliman (2017), an unstructured interview is a flexible format that is usually based on a questions guide. Nonetheless, the framework is at the discretion of the examiner, allowing the interviewer to 'chatter' to obtain insight into the person's attitudes.

Structured interviews can be done in person, over the phone, or online (Kumar, 2014). Structured interviews, according to Walliman (2017), are standard questions that the interviewer reads according to the interview schedule. Responses may be provided in a closed manner. Structured interviews, on the other hand, are conducted when the information required is known ahead of time, according to Sekaran and Bougie (2016). The material of a structured interview is typically prepared prior to meeting the participants (Sekaran & Bougie, 2016). There are interview formats that combine organised and unstructured questions. A semi-structured interview contains a structured section with standard and open-ended type questions (Walliman, 2017).

Merriam and Tisdell (2016), explained the 3 types of research interview which are structured, unstructured, and semi-structured interview. A structured interview, also known as a standardised interview, in which all questions are prepared ahead of time and are presented to each interviewee in the same order, or each interview is presented with the same questions in the same order. An unstructured interview, also known as a non-directive interview, is one in which questions are not rehearsed. The format of an unstructured interview varies greatly, with certain questions prepared in advance in relation to a topic that the researcher or interviewer desires to address. They are less formal and more free-flowing than a scheduled interview. The semi-structured interview is the third type of research interview. This is a technique of investigation that combines a pre-determined set of open questions with the possibility for the interviewer to gain insight into specific themes or reactions (Edwards, 2013).

In a semi-structured interview, the interviewer may also have a framework of themes to be explored. Looking at the three kinds of research interviews, the researcher employed the final one for this study because it uses a pre-determined set of open questions to elicit information from the informants. Furthermore, the researcher intends to investigate or capture the new theme from the interview. Therefore, semi-structured questions generated, with some adaptation from Kunjuraman (2022), Phelan et al. (2020) and Su et al. (2016) and minor modifications done to fit the research aims. Merriam and Tisdell (2016) contended that semi structured interview through open-

ended questions is able to avoid any potential biased responses during the interview. Moreover, in semi structured interviews, follow-up questions are equally vital as the main questions. Prompts encourage individuals to speak more and can elicit additional information needed to grasp the topic such as repeating the participant's words, summarizing the main idea, or expressing interest with verbal agreement (DeJonckheere & Vaughn, 2019). Table 3.6 listed the probing technique that used in the interview session.

Table 3.6
Probing Techniques for Semi Structured Interviews

Probing Technique	**Description**
Wait time	Interviewer remains silent after asking a question. This allows interviewee to think about their response and often encourages the interviewee to speak.
Echo	Interviewer repeats or summarises the participants words, encouraging them to go more details.
Verbal agreement	Interviewer uses affirming words such as "Yes" or "Okay" to encourage the interviewee to continue speaking.
Expansion	Interviewer asks participants to elaborate on a particular response.
Explanation	Interviewer asks participants to clarify a specific comment.
Leading	Interviewer asks interviewee to explain their reasoning

Source: Modified from Bernard (2000)

Apart from the demographic background, each section will have questions addressing the study's objectives.

3.4.1 Demographic Questions

The demographic profile of the main informants is the first probed in a semi structured interview question. This section separated into two categories which is for local communities and other stakeholders. This information is required to determine the extent to which demographic background moderate informant's knowledge about their current living condition and the relation to community-based tourism. Therefore, the questions are illustrated in Table 3.7.

Table 3.7
Demographic and Personal Information Questions

Question	**Sources**
Gender (*Jantina)*	Researcher
Age (*Umur*)	
Race (*Bangsa*)	
Education level (*Pendidikan*)	
Position *(Jawatan/perkerjaan)*	

3.4.2 Stakeholders' Perspective on How Current Tourism Development Policy in Pangkor Island Affect the Island's Community Livelihood Assets (RQ1)

In understanding the tourism development policy that affect the island's community livelihood assets, five questions are developed for the interview. The questions include those pertaining to the ecosystem service implemented by the informants that will link to other resources or assets of the study. The questions that used are set out in Table 3.8.

Table 3.8
Questions for Objective One

Interview question	**G**	**BP**	**C**	**A**	**Probing**

From your perspective, how would you describe the current state of tourism development on Pangkor Island? *Dari perspektif anda, bagaimanakah anda menggambarkan keadaan semasa pembangunan pelancongan di Pulau Pangkor?*	√	√	√	√	
What impacts have you observed in tourism development over the past few years? *Apakah perubahan yang anda perhatikan dalam pembangunan pelancongan sejak beberapa tahun kebelakangan ini*	√	√	√	√	
In your opinion, what are the key livelihood assets within the local community on Pangkor Island? *Pada pendapat anda, apakah aset mata pencarian utama dalam masyarakat setempat di Pulau Pangkor?* *LA: fizikal, semulajadi, kewangan/ekonomi, social, kemanusiaan*	√	√	√	√	*How has tourism development contributed to the economic well-being of the local community?* *Bagaimanakah pembangunan pelancongan telah menyumbang kepada kesejahteraan ekonomi masyarakat setempat?*
How have these community assets been influences by tourism development policies? *Bagaimanakah aset komuniti ini telah dipengaruhi oleh dasar pembangunan pelancongan*?	√	√	√	√	Can you identify any specific economic challenges or benefits resulting from tourism development?

					Bolehkah anda mengenal pasti sebarang cabaran atau faedah ekonomi tertentu yang terhasil daripada pembangunan pelancongan? What social changes have you notices within the community due to tourism development?
How there been any notable challenges or opportunities for tourism community as a result of the policies? *Bagaimanakah wujudnya sebarang cabaran atau peluang yang ketara untuk komuniti pelancongan hasil daripada dasar tersebut?*	√	√	√	√	

Notes: G=Government; BP= Business Players; C=Community A=Academia

3.4.3 Stakeholders' Perspective on the Potential Changes in Developmental Policies in Support with Pangkor Island's Community Livelihoods Strategies and Their Livelihood Outcomes (RQ2)

As stated in the literature, the engagement of institutions to support and grow the project especially in CBT is crucial in engaging the community towards the strategies. This may ensure that the strategies are tailored to the needs and sustainability. Therefore, there are three questions developed to understand this process and the questions are illustrated in Table 3.9.

Table 3.9
Questions for Objective Two

Interview question	**G**	**BP**	**C**	**A**	**Probing**
How would you describe the current livelihood strategies within the Pangkor Island community? *Bagaimanakah anda menerangkan strategi kehidupan semasa dalam masyarakat Pulau Pangkor?*	√	√	√	√	Can you identify any specific challenges or opportunities that have influenced the community's livelihood strategies? *Bolehkah anda mengenal pasti sebarang cabaran atau peluang khusus yang telah mempengaruhi strategi mata pencarian masyarakat?*
Are there specific strategies in place to ensure sustainable community livelihood assets? *Adakah terdapat strategi khusus untuk memastikan aset kehidupan masyarakat yang mampan*?	√	√		√	
To what extent do you believe the community should be involved in shaping developmental policies that affect their livelihoods? *Sejauh manakah anda percaya masyarakat harus terlibat dalam membentuk dasar pembangunan yang menjejaskan kehidupan mereka?*	√	√	√	√	Are there any specific aspects of policymaking where community input is particularly crucial? *Adakah terdapat sebarang aspek khusus dalam penggubalan dasar di mana input komuniti amat penting*?

Notes: G=Government; BP= Business Players; C=Community; A=Academia

3.4.4 Multi-Livelihood Strategy Through the Blue Economy Concept in Enhancing the Pangkor Island's Community Livelihoods Strategies and Their Livelihood Outcomes (RQ3)

The literature has mentioned that integrating strategy through Blue Economy concept provides strong economic for the conservation of the local communities. Therefore, in understanding the strategies embedded that would enhance community sustainability, six questions are developed for the interview. The questions that used are set out in Table 3.10.

Table 3.10
Questions for Objective Three

Interview question	**G**	**BP**	**C**	**A**	**Probing**
How familiar are you with the concept of Blue Economy, especially in the context of small island communities like Pangkor? *Sejauh manakah anda mengenali konsep Ekonomu Biru, terutamanya dalam konteks masyarakat pulau kecil seperti Pangkor?*	√	√	√	√	
What initiatives or policies has the government implemented to support the livelihoods of Pangkor Island's community particularly in relation to the Blue Economy concept? *Apakah inisiatif atau dasar yang telah*	√	√	√	√	If yes: How do you perceive the role? If no: what is your opinion on that?

dilaksanakan oleh kerajaan untuk menyokong kehidupan masyarakat Pulau Pangkor khususnya berkaitan konsep Ekonomi Biru					
From your perspective, how can the Blue Economy concept ne integrated into existing livelihood strategies of the Pangkor Island community? *Dari perspektif anda, bagaimanakah konsep Blue Economy boleh diintegrasikan ke dalam strategi sara hidup sedia ada masyarakat Pulau Pangkor?*	√	√	√	√	Any potential benefits or challenges do you foresee? *Apa-apa potensi manfaat atau cabaran yang anda jangkakan?*
What specific livelihood outcomes do you hope to achieve through the proposed multi-livelihood strategy based on the Blue Economy concept? *Apakah hasil mata pencarian khusus yang anda harap dapat dicapai melalui cadangan strategi pelbagai mata pencarian berdasarkan konsep Ekonomi Biru?*	√	√	√	√	
How do you see the proposed multi-livelihood strategy influencing the economic and social well-being of the community, as well as the sustainability pf tourism operations?	√	√	√	√	

Bagaimanakah anda melihat cadangan strategi pelbagai mata pencarian mempengaruhi kesejahteraan ekonomi dan sosial masyarakat, serta kemampanan operasi pelancongan?					
What challenges do you anticipate in implementing the proposed multi-livelihood strategy through the Blue Economy concept? *Apakah cabaran yang anda jangkakan dalam melaksanakan cadangan strategi pelbagai mata pencarian melalui konsep Ekonomi Biru?*	√	√	√	√	What proactive measures or strategies can be put in place to address or mitigate these challenges? *Apakah langkah atau strategi proaktif yang boleh dilaksanakan untuk menangani atau mengurangkan cabaran ini?*

Source: G=Government; BP= Business Players; C=Community; A=Academia

3.5 Data Collection Procedures

Before the actual data collection or fieldwork, the researcher conducted preliminary visits to build relationships and rapport (Bailey, 2007). Besides that, it is also to establish the research issues and problem statements related to the destinations. According to Creswell and Poth (2018), qualitative researchers employ a variety of methodologies. Rather than relying on a single data source, they often collect a variety of data sources, including not only interviews but also observations and documents. The preliminary visited has been conducted twice by the researcher in October 2022 and June 2023.

Then they review and comprehend all the data, categorising them into categories or themes that cover all data sources (Creswell & Poth, 2018). Documented resources, as indicated by Kumar (2014), are a method of gathering information. In this study, data also collected through reliable websites, books, journals, scholarly articles, news articles, reports, government policies, and information memorandums. All such information can be obtained from government or quasi-government publications, previous studies, personal records, and mass media (Kumar, 2014). This information is easily accessible online. These resources help reinforce the argument and compare it to what is happening. With these resources, interview questions are created to answer the research questions. These resources can also help to shape the new sustainable livelihoods model and work with what is gained through interview findings. Finally, holistic results can be produced in this study.

The data collection process involved several phases to ensure validity and reliability. The first phase focused on preparing and conducting the interview sessions, while the final phase involved organizing, analyzing, and categorizing the collected data into specific themes. The procedure for preparing and conducting interviews is taken from the example proposed by Creswell and Poth (2018) in Figure 3.3. All these procedures are done orderly and are described in Chapter 4.

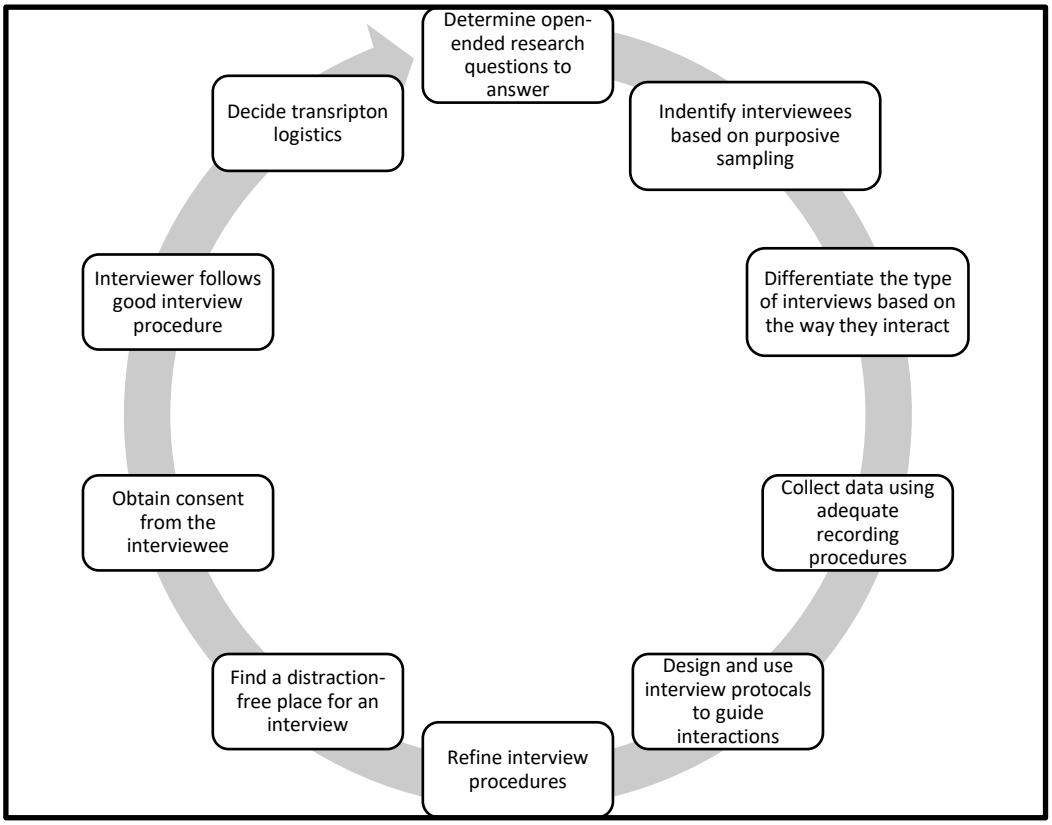


Figure 3.3 Procedure for Preparing and Conducting Interview

Source: Creswell and Poth (2018)

The goals of a researcher necessitate clear, accurate, and authentic feedback. The researcher compiles a list of potential subjects and creates an interview guide before approaching the individuals. The design of the interview guide includes approval from the Research Ethics Committee. The importance of ethics in research cannot be overstated. As a result, all participants' information will be kept private. Next, researcher perform fieldwork which is the beginning of interview process. The interview venue is according to the suitability and comfort of the participants. The interview session did not exceed 90 minutes to maintain fruitful feedback and all activities were recorded and at the same time written down as needed.

The interview phase was conducted carefully, focusing on individuals directly involved in tourism development. On top of that, ethics in conducting research is essential. Therefore, all participants' details are kept confidential. The names specified are in code form. Participants were recruited using purposive sampling, supplemented by snowball referrals. The first participant interviewed was BP1, a tourism operator,

president of a budget chalet association, and owner of Pangkor Village. He answered all questions confidently, showcasing his extensive knowledge as a community representative. His comprehensive insights set a solid foundation for understanding the interconnected dynamics of tourism operations, local governance, and community engagement.

However, adjustments were made during subsequent interviews, particularly in clarifying Research Question 3 by providing more examples to ensure reliable feedback. The next five participants (BP2-BP6), also active in tourism businesses, offered diverse perspectives on the island's tourism development. Observations revealed that many participants managed multiple businesses, enriching the insights gathered with unique, multi-livelihood strategies. Additionally, varied experiences provide a broader understanding of the challenges and opportunities in tourism development, informing more inclusive and adaptable strategies for the island's growth.

The next group of participants consisted of local community members with diverse livelihood strategies. C1 is a freelancer engaged in coastal activities like boatmanship. C2 and C4, while primarily housewives, run food stalls to supplement their household income. C3 works as both a fisherman and a pink taxi driver, prioritizing the taxi business during peak seasons for higher earnings. C5 is a freelancer who also sells food and souvenirs to boost their income. The participants demonstrated diverse multi-livelihood strategies, combining primary roles like freelancing, fishing, or homemaking with secondary income-generating activities such as food stalls, souvenir sales, and seasonal transport services.

Three representatives from local authorities participated in the interviews, including officials from Kerajaan Tempatan Negeri Perak (LA1), Tourism Perak (LA2), and Majlis Perbandaran Manjung (LA3). These authorities play key roles in planning and strategizing the tourism development of Pangkor Island. The interviews were conducted virtually via Microsoft Teams, with appointments scheduled in advance to ensure mutual understanding of the interview process. The involvement of local authorities provided critical insights into the institutional planning and strategies behind Pangkor Island's tourism development. The virtual format facilitated participation while maintaining professionalism and efficiency. Their input underscored the alignment between local governance priorities and the community's tourism aspirations, highlighting opportunities for coordinated efforts to drive sustainable growth.

Lastly, two academic representatives (A1 and A2) familiar with the context of tourism development contributed valuable insights. Both, affiliated with local institutions, provided new knowledge and a theoretical foundation, enriching the understanding of tourism development on the island. The input from A1 and A2 underscores the importance of integrating academic perspectives in tourism research. Their theoretical contributions complement practical insights from industry participants, offering a well-rounded approach to understanding and addressing the challenges and opportunities in Pangkor Island's tourism development.

All interview sessions with the participants were conducted in Malay with the occasional use of English and they provided their informed, written consent. It is the spoken language of Malaysians and the official language of the country. The purpose of using Malay is for the convenience of all participants to understand and appreciate each question posed to them. On top of that, it will make them feel more comfortable answering every question and as a result, each answer meets each desired objective.

The next step is to organise and analyse the data. All the information collected via audio recording and written documentation directly transcribed or rewritten in full and re-translate to English version for easy coding. The data subsequently be coded and assigned to suitable themes. This process ensures that all themes are as accurate and correct as the participants intended. NVivo 14 used by the researcher during the framework development process. The preceding description is a component of Creswell's proposed process (2014).

3.6 Data Analysis, Reliability, Validity and Ethical Concerns

3.6.1 Data Analysis

According to Tobi (2017), data analysis is a research technique component associated with the most fundamental layer of research methodology. Yin (2014) stated the primary focus of qualitative research is on the individual events and processes of each case and the ability to explain human experience in the context of everyday happenings is one of qualitative research's strengths. In the context of this study, the researcher collected common experiences such as fisheries and tourism related activities. These multiple accounts from the narrative data from which the researcher

generalises the assistance to livelihoods. The study also engaged numerous communities in a variety of activities, experiences, and settings, and it is appropriate for use in within-case analysis. The purpose of the within-case analysis is to become acquainted with the facts and generate preliminary theories (Einsenhardt, 1989).

In addition, there are computer-assisted methods with software for qualitative data analysis on the market, such as Atlas.ti and Nvivo. Data analysis requires both explanations - how the research is conducted, and a demonstration of how raw data is translated to conclusions (Tobi, 2017). Tobi (2017) highlighted that over the last decade, software has gotten broader and more functional, incorporating text and video-based data (Tobi, 2017). According to Yin (2014), this software will not complete the analysis but will function as a reliable assistant and tool (Yin, 2014).

In this study, thematic analysis used to analyse qualitative data which focuses on examining themes within the data. According to Javadi and Zarea (2016), thematic analysis is the most used method for analysing qualitative data in a variety of fields of study. It can be applied to a variety of datasets and to solve a wide range of research issues (Javadi & Zarea, 2016). The analysis is associated with academics who employ qualitative approaches and conduct more commonly used research (Braun & Clarke, 2014). Thematic analysis is appropriate for persons with or without qualitative experience (Braun & Clarke, 2014). According to Creswell and Poth (2018), the qualities of qualitative research, namely the diversity of views and meanings of participants, are critical in the research process. Researchers continue to focus on discovering the meanings held by participants about the problem during qualitative research, rather than the implications the researcher brings to the research or the authors from the literature (Creswell & Poth, 2018). The importance of the participation demonstrates various perspectives on a wide range of topics and points of view. As a result, the themes created in a qualitative report should reflect the study participants' diverse perspectives (Creswell & Poth, 2018). The researcher utilised thematic analysis since there is no precise guideline for sample size for thematic analysis and because it is the most common and accessible qualitative research method. Thematic analysis not only provides a flexible way of data analysis in qualitative research but also creates a more systematic and explicit form without jeopardising the depth of the analysis. Therefore, due to this advantage, researcher decided to use thematic analysis for this study. According to Braun and Clarke (2006, 2012, 2013, 2014,2020), there are 6 phases

in thematic analysis: familiarization with data, generating codes, generating initial themes, reviewing potential themes, defining and naming themes, and producing the report or writing up. It is shown in Figure 3.4.

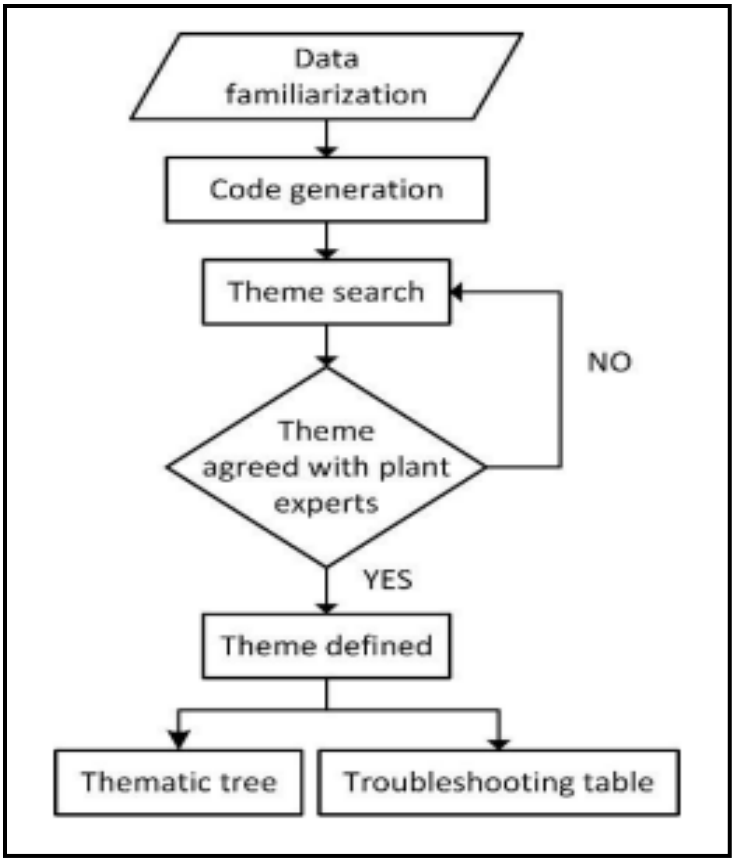


Figure 3.4 Six Phases of Thematic Analysis

Source: Braun and Clarke (2006)

The first phase involves reading and rereading the data until it is well versed in its content. After that, 'coding' entails creating basic labels that indicate key elements of the data as well as its relevance to research topics. Ultimately, in this phase, the entire dataset encoded and compiled into suitable code extracts for analysis. Producing initial themes phase involves coding and combining data to identify bigger patterns of meaning through probable themes. Then, the data organised by themes. As a result, the data is viable, and each proposed theme's viability can be evaluated. The following phase was, reviewed the dataset's potential theme to determine if all the findings entered are valid and will be answering the research questions. Concepts are frequently used to promote or criticise them. The process of defining and naming themes entails making a detailed study of each topic, working on the scope and focus of each theme, and

representing their individual "story." Finally, it determines the informative name for each theme. The last stage of thematic analysis entails weaving analytical narratives and data extracts together, as well as contextualising earlier literature-related studies (Braun & Clarke, 2006). Thematic analysis is a technique for analysing data based on a preset theme. Therefore, to support and assist researcher in analysis work, NVivo 14 software help to facilitate the analysis process. NVivo is a computer program used in qualitative data analysis and applied in this study to uncover and systematically analyse complex phenomena hidden in unstructured data. The coding process done through the software, where the researcher read the prepared transcripts and code repeated words or essential words that said by the participants. After the theme creation done and once the theme has been identified, NVivo used to create the framework that shows the networking between the themes. Previous authors in qualitative investigations have presented thoughtful ideas and a data analysis process. Nonetheless, this study adopted Creswell's (2014) point of view because the data analysis outlined in his book is straightforward and acceptable. The procedure described by Creswell (2014) in Figure 3.5 followed in this study.

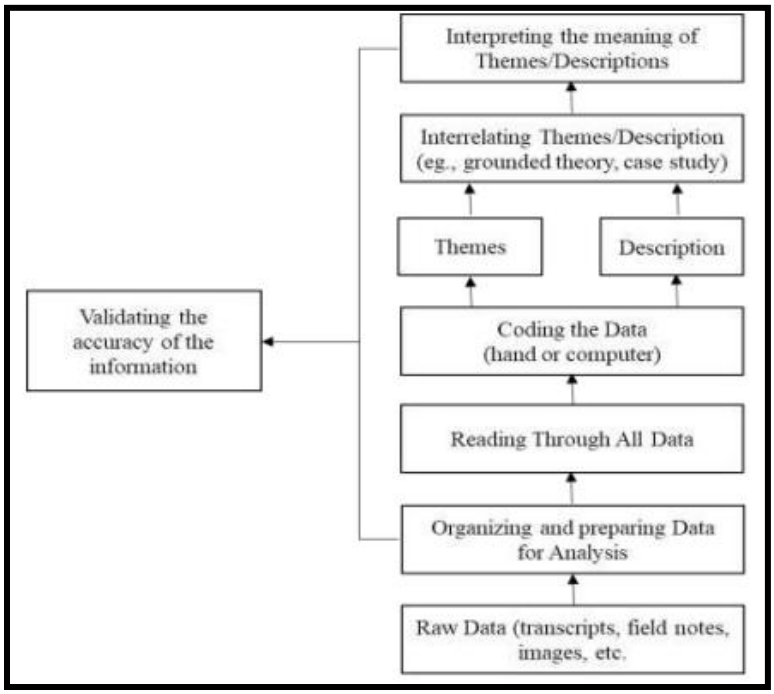


Figure 3.5 Data Analysis in Qualitative Research

Source: Creswell (2014)

Step 1: Organise and prepare data for analysis. The process involves transcribing interviews, typing field notes, organising data into various types depending on the source of information. The interview sessions were recorded, and the researcher attentively listened to the recordings to fully understand and empathize with each participant's comments and views. Each recording was carefully replayed multiple times for accuracy, followed by a verbatim transcription process. Since the conversations were conducted in Malay, the verbatim transcriptions were also completed in Malay and later translated into English.

Step 2: Read or view all data. This initial step offers a broad overview of the information, enabling the researcher to reflect on its overall meaning. It helps identify the general themes, tones, and perspectives expressed by the participants. At this stage, the researcher can assess the depth, credibility, and potential impact of the information. Each interview session was saved as a separate file on the computer and software for easy identification.

Step 3: Start encoding the data. At this stage, the researcher organizes the data by breaking down segments of text and annotating the margins with category labels. This process involves reviewing the text data gathered during data collection, categorizing sentences, and labelling. The researcher carefully examines the verbatim transcriptions to ensure a thorough understanding. At this point, patterns and ideas shared by the participants start to emerge, providing an overall picture of their suggestions and perspectives.

Step 4: Use the coding process to generate descriptions of settings or people and categories or themes for analysis. The description process involves providing detailed information about a person, place, or event within a specific context. Researchers were able to generate codes to support this description. This analysis helps in developing comprehensive description for research projects. The identified themes represent the main findings of the qualitative study and are interconnected to form a narrative storyline. Each case was analyzed, and themes were developed based on the available evidence. Through participants' input, the researcher identified relevant codes aligned with the study's objectives and research questions. These codes were then categorized and organized under specific themes.

Step 5: Develop how descriptions and themes will be shown in the qualitative narrative. The approach involves utilizing narrative citations to convey the findings of

the analysis. The discussions highlight the chronology of events and provide an in-depth exploration of various themes, including subthemes, specific examples, diverse individual perspectives, and excerpts. Interrelated themes are also examined. The data analysis presents a process model accompanied by descriptive information for each participant in a table format. Researchers rely on narrative citations at this stage to achieve meaningful results. Interviews with participants who responded sincerely and cooperatively were notably more effective than those with less engaged participants. All participants shared experiences of helping or being helped, and the themes were derived from the narratives in their conversations, revealing connections among them. Each participant offered unique perspectives on the research questions, which were documented as verbatim transcriptions. Key points emphasized by participants that addressed the research questions were coded. These codes were then prioritized and categorized by the researcher to develop overarching themes.

Step 6: The final step in data analysis involves making interpretations in qualitative research of the findings or results. It will answer questions about the lessons learned from this study. These lessons often reflect the researcher's interpretation, shaped by the unique culture, history, and experiences discussed during the study. It can also emerge from comparing the study's findings with existing literature or theoretical frameworks. Through this comparison, the researcher determines whether the findings align with or diverge from previous information. In the final stage, the results are organized into charts or frameworks for analysis. The interpretation is based on researcher's interactions with participants, readings, observations, and other experiences. The literature review validates these findings in earlier chapters (as argued) while proposing new models for community sustainable livelihood for marine and coastal tourism destinations development.

3.6.2 Reliability and Validity of the Study

In qualitative research, researcher needs to convey the steps that they will adapt in their studies to check for the accuracy and credibility of their findings (Creswell & Crewell, 2018). The trait of being trustworthy or constantly working effectively is referred to as reliability. Reliability also implies the degree to which the result of a measurement, calculation, or specification can be depended on to be accurate (Kumar,

2014). The dependability of a study is critical to ensure the study's findings can be used to guide individuals who require them. In the context of research related to the community development of the marine and coastal tourism destination, Kumar (2014) stated that if the study does not provide the right results of findings, it can bring a catastrophic effect on an organization, state, or country. Furthermore, the situation remains unresolved, and the decision is rendered null and void (Kumar, 2014).

The attribute of being based on truth or reason, acknowledged, and having legal force or being legally acceptable is referred to as validity. Validity is also referred to as "trustworthiness" (Denzin & Lincoln, 2018). Expert review is required to improve the validity of a study. An expert can assess and improve the research. An expert, for example, can review the completed interview set. They can provide feedback on the interview set's content and may be offered an upgraded. An 'expert' should have considerable methodological experience as well as knowledge of the theoretical and practical components of the interview process. He should also be knowledgeable about fieldwork and data processing. There are two or three experts, but no more than twenty (Eurostat, 2017). Furthermore, the study also established validity in qualitative research known as trustworthiness, which includes four criteria for qualitative inquiry: credibility, transferability, dependability, and confirmability (Lincoln and Guba, 1985; Denzin & Lincoln, 2018). All these criteria were established in this study as shown in Table 3.11.

According to Trochim and Donnelly (2006), credibility entails demonstrating that qualitative research results are reliable or trustworthy from the standpoint of research participants. Because qualitative research studies examine people's perceptions, experiences, feelings, and beliefs, respondents are thought to be the best judges of whether the findings truly capture their thoughts and feelings. Trochim and Donnelly (2006) added that transferability refers to the extent to which the results of qualitative research can be generalized or transferred to other contexts or settings. Although it is challenging to establish transferability mainly because of the approach adopted in qualitative research, this can be achieved if an in-depth description of the process is assumed to be followed and imitated by others (Trochim & Donnelly, 2006). Dependability relates to extensive and detailed process records so that others can replicate them to ensure their level of reliability. Finally, confirmability refers to the extent to which others can verify or confirm a result (Trochim & Donnelly, 2006).

According to Trochim and Donnelly (2006), transferability refers to the extent to which qualitative research findings can be generalised or translated to different contexts or settings. Although establishing transferability is difficult due to the approach used in qualitative research, it is possible if an in-depth explanation of the process is followed and mimicked by others (Trochim & Donnelly, 2006).

Table 3.11
Four Criteria for Qualitative Inquiry Adopted in the Study

Types of trustworthiness	**Descriptions of the study**
Credibility	- Ensured through completeness and accuracy of the data. Based on the views of experts who recommend the importance government agencies that formulate, plan, and execute the tourism development in Pangkor Island (e.g., Manjung Municipal Council) - Establish via prolonged engagement where researcher conducted two preliminary visit before the actual data collection, fostering familiarity and contextual understanding. - The researcher built strong rapport through close linkage with the community president and the Pulau Bebas Cukai officer, which facilitated trust and positive relationships. - Credibility further strengthened through continuous observation and member checking, particularly among expert informants, to verify and validate emerging findings.
Transferability	- Strengthened by detailed documentation of the research process and rich, thick descriptions that allow readers to determine the applicability of the findings in similar contexts (e.g., other small island or coastal tourism communities). - Purposive sampling was applied to ensure participants were information-rich and representative of key stakeholder groups (government, community leaders, tourism operators, and academia) - Memos and preliminary themes were disclosed to participants for feedback to ensure authenticity and alignment with their perspectives

Dependability	- Achieved through the development of a clear and transparent research plan, including systematic procedures for data collection and analysis. - Audit trails were maintained, including documentation of interview transcripts, coding processes, and data interpretation steps to ensure consistency and traceability throughout the study.
Confirmability	- Enhanced through a research audit process that minimized researcher bias and ensured findings were grounded in the data. - Reflexivity was practiced through memo writing and peer debriefing to examine the researcher's positionality and influence on the research process. - All interpretations and conclusions were supported by direct quotations and evidence from participant narratives.

Source: Creswell and Creswell (2018)

Moreover, there are multiple approaches that can be used by researcher to enhance their ability to assess the accuracy of findings as well as to convince readers of that accuracy (Creswell & Creswell, 2018). Therefore, to ensure data quality, the triangulation technique used in this study to supplement multiple sets of data supplemented by in-depth interviews with key participants, field notes from participants observation, and relevant secondary data sources, allowing the research findings to be more generalizable. According to Creswell and Creswell (2018), triangulate different data sources by examining evidence from the sources and using it to build a coherent justification for themes. If the themes are established based on converging several sources of data or perspectives from participants, then this process can be claimed as adding to the validity of the study. By using triangulation, researcher can increase the validity and reliability of the findings by corroborating information across different sources and methods.

3.6.3 Ethical Consideration

The study adheres to a strict and detailed code of ethics that cover everything from study participants' rights to improper types of researcher-participant relationships.

For application and review, some preliminary planning and thought are required. When performing qualitative research, Miles et al. (2014) state that numerous norms of ethics must be followed. Among them are project eligibility, efficiency and agreement, benefits, expenses, and reciprocity. Miles et al. (2014) noted that it addresses harm and risk, honesty and trust, privacy and confidentiality, intervention and advocacy, research integrity and quality, data, and conclusion ownership, and, finally, the use and misuse of results (Miles et al., 2014). While dealing with participants, researchers agree with all of Miles et al. (2014) points of view and opinion thus, it can be done in an orderly manner. Permission to conduct the study was submitted to the Research Ethics Committee, and formal ethical approval was obtained (REC/09/2023:PG/MR/377) for the data collection between 27th September 2023 until 29th February 2024. Therefore, the data collection process was done within the stipulated period. In addition to meting formal ethical requirements, the researchers also maintained a high level of awareness and reflexivity throughout the study to minimise personal bias. Reflexity is essential in qualitative research, as researchers themselves are the primary instrument of data collection and interpretation (Creswell & Poth, 2018). The researcher acknowledged that personal background, academic training, and prior exposure to tourism-related contexts could shape the way questions were asked, how participants' responses were interpreted, and ultimately how findings were represented.

3.7 Chapter Summary

This chapter explains in-depth the research methodology used in the study. The study conducted by using basic qualitative study to know the participants experiences interpretation and how they construct it to develop sustainable livelihood model in the context of marine and coastal destination development. Moreover, the study uses accurate and correct research methodology based on the nature of the study such as the research title, issues, and objectives.

CHAPTER 4
ANALYSIS AND RESULTS

4.1 Introduction

This chapter presents a comprehensive overview of the findings derived from the data collection process. A total of 16 interviews were conducted with key stakeholders, all of which were meticulously recorded to ensure accuracy and reliability. The data obtained from these recordings are directly aligned with the study's objectives, providing valuable insights into the research questions. The informants involved in this study included a diverse group of stakeholders, each contributing unique perspectives relevant to the study's focus. Specifically, the sample comprised representatives from academia, operators of tourism businesses, local community members, and government officials. This broad representation ensured a well-rounded and multifaceted understanding of the issues being investigated. Academia informants provided insights into theoretical and practical aspects related to the study's objectives, contributing to a deeper understanding of the educational and institutional contexts. Tourism business operators offered practical perspectives on industry-specific challenges and opportunities, while local community representatives highlighted grassroots concerns and experiences. Government representatives shared their perspectives on policy implications and regulatory considerations. The alignment of the data with the study's objectives was confirmed through a rigorous analysis process, ensuring that the findings accurately reflect the research goals. This alignment underscores the relevance and validity of the collected data, supporting the study's conclusions and recommendations.

4.2 Qualitative Interview Report

In-depth interviews were conducted with 16 stakeholders from four distinct groups, and the demographic information is presented in 4.1. Participants were selected based on their direct involvement or in tourism policies, economic activities, or community livelihoods. The sample size was guided by data saturation, reached when no new themes emerged during the interviews. This approach ensured comprehensive stakeholder representation and sufficient depth of data for robust analysis.

Table 4.1
Stakeholder's Data

Informants	Code	Type of stakeholders	Gender	Age	Education Level	Occupation
P1	A1	Academia	Female	41-45	PhD. Doctorate	Senior Lecturer
P2	A2	Academia	Female	41-45	PhD. Doctorate	Lecturer
P3	BP1	Tourism Business Player	Male	55-59	Senior High School	Hotel Owner
P4	BP2	Tourism Business Player	Female	21-25	High School	Hotel Staff
P5	BP3	Tourism Business Player	Female	41-45	Bachelor's degree	Chalet owner/vehicle rental business/souvenir owner
P6	BP4	Tourism Business Player	Male	36-40	High School	Tour guide and boatman
P7	BP5	Tourism Business Player	Male	21-25	High School	Duty free shop owner
P8	BP6	Tourism Business Player	Female	21-25	High School	Souvenir/homestay owner/Duty Free/Seafood production
P9	C1	Community	Male	31-35	High School	Freelancer/boatman/fisherman
P10	C2	Community	Female	31-35	High School	Housewife/food stall business
P11	C3	Community	Male	41-45	IKM	Taxi driver/fishermen
P12	C4	Community	Female	61-65	None	Housewife/street food business
P13	C5	Community	Female	51-55	High School	Freelancer/food stall/souvenir
P14	LA1	Government	Female	51-55	Bachelor's degree	Local government personnel
P15	LA2	Government	Male	51-55	Bachelor's degree	Tourism Perak personnel
P16	LA3	Government	Female	26-30	Diploma	Majlis Perbandaran Manjung personnel

The data presents a diverse group of stakeholders involved in various sectors which highlights the importance of a multi-stakeholder approach in designing the sustainable livelihood framework. Each group offers unique insights, challenges, and opportunities, influences by their roles, education, and socio-economic backgrounds. The data reveals the significant involvement of academia who provide both theoretical and practical knowledge to support evidence-based policies and initiatives. Secondly, tourism business operations which consist diversity in their roles reflects the multi-livelihood strategies employed within the tourism industry on Pangkor Island. Thirdly, community where they are engaged in traditional livelihoods, including fishing food stall and food business with some also venturing into tourism-related activities. Finally, government stakeholders who represent local authorities for tourism and island management. Their insights are vital for understanding policy frameworks, infrastructure development, and governance in tourism. From the findings, it is also highlighted that the gender balance ensures the inclusion of diverse perspectives particularly in understanding the roles of women in community development and tourism, as they are significantly represented among business operators and community members. On top of that, the diversity of education background highlights varying levels of access to formal education and its correlation with stakeholders' roles in tourism and livelihood strategies. The broad age ranges from 21-65, ensuring representation across different generational cohorts. This range provide a comprehensive understanding on how age influences perspectives on tourism development and livelihood adaptation.

4.3 Reflection of Qualitative Analysis

Research objective one focuses on how to tourism development on Pangkor Island shape the daily lives and well-being of the local community. By gathering insights from various stakeholders, the research explores the impact of these policies on key livelihood assets such as natural resources, infrastructure, human capital, and social networks. The findings that whole tourism brings notable benefits such as improved facilities, and increased income opportunities, it also poses challenges, including environmental strain and unequal development. These findings provide an insight of

how tourism policies influence the community's ability to sustain and improve their quality of life.

Research objective two, investigates how potential changes in tourism development policies could better support the community's livelihood strategies. Stakeholders' perspectives are crucial in identifying policies that could foster economic resilience, environmental sustainability, and social well-being. Themes that emerged include the need for policy reform to promote economic resilience, environmental sustainability, and social equity. Participants emphasized the importance of integrating community voices into planning processes and strengthening institutional support systems. This study aims to provide insights into policy adjustments that could create a more balanced and sustainable development path for Pangkor Island's communities.

Research objective three, proposes a multi-livelihood strategy rooted in the Blue Economy concept. By leveraging marine-based industries, sustainable tourism, and innovative business models, the aims to enhance livelihoods strategies and outcomes for the local communities. Stakeholders highlighted the potential of this approach to diversify income sources, reduce dependency on mass tourism, and foster environmental stewardship. This approach considers how traditional livelihoods such as fishing can be integrated with new opportunities in eco-tourism, marine conservation, and small-scale entrepreneurship. By presenting a structured strategy, the research offers practical recommendations on how Pangkor Island's community can thrive in a changing economic landscape while preserving its natural resources for future generations.

As this study deals with multi-level of stakeholder's engagement (Academics, Community, Tourism Business Operator, and Government), the themes that those informants' highlights will be cross-case analyzed or compared the opinions. All the data was transcribed and processed using NVivo software. Then, the transcriptions were carefully checked, and notes were made to gather all relevant and important information. This study leverages the opportunity to draw valuable insights from various cases, facilitating the collection of critical evidence to support policy reform (Lim, 2024). Through cross-case analysis, data is graphically represented, offering a more comprehensive understanding of the findings. Consequently, the cross-case analysis in this research is employed to engage in an in-depth exploration of community sustainable livelihood development in Pangkor Island. For clarity and consistency

throughout the subsequent sections and analyses, the terms academia, local community, tourism business operators and government participant used consistently in the reporting.

4.3.1 Stakeholders' Perceptions of How the Current Tourism Development Policy On Pangkor Island Affect the Island's Community Livelihood Assets (RQ1)

The first objective of this study is to explore how the current tourism development policy on Pangkor Island affect the livelihood assets of the island community. To achieve this, five key interview questions were posed to informants during in-depth, face-to-face sessions. These questions explored the informants' perspectives on the state and changes in tourism development, its impact on livelihood assets, and associated challenges and opportunities. This section outlines the findings, structured according to the research questions and the questions probed are as follows.

Interview Question 1.1:
How would you describe the current state of tourism development on Pangkor Island?

Interview Question 1.2:
What impacts have you observed in tourism development over the past few years?

Interview Question 1.3:
What are the key livelihood assets within the local community on Pangkor Island?

Interview Question 1.4:
How have these community assets been influences by tourism development policies?

Interview Question 1.5:
How there been any notable challenges or opportunities for tourism community as a result of the policies?

4.3.1.1 Current State of Tourism Development on Pangkor Island? (RQ 1.1)

Tourism development is crucial for the sustainable livelihoods of residents, particularly in developing countries, and it is recognized as a tool to increase economic benefits by 2030 through sustainable management of fisheries, aquaculture, and tourism (UN DESA & World Resources Institute, 2019). For an island, it has been promoted as an alternative livelihood to reduce dependency of communities on declining marine resources (Dash & Balamurugam, 2024; Praptiwi et al., 2021). Therefore, to understand the current state of tourism development on Pangkor Island, the perspective from the stakeholders is crucial to view either it in the forms of positive or vice versa. Informants' insights revealed four themes: (i) New Facilities and infrastructure development (ii) New Development and Progress (iii) Imbalance development and (iv) Demand Change. Figure 4.1 below presents the project map and comprehensive elucidation.

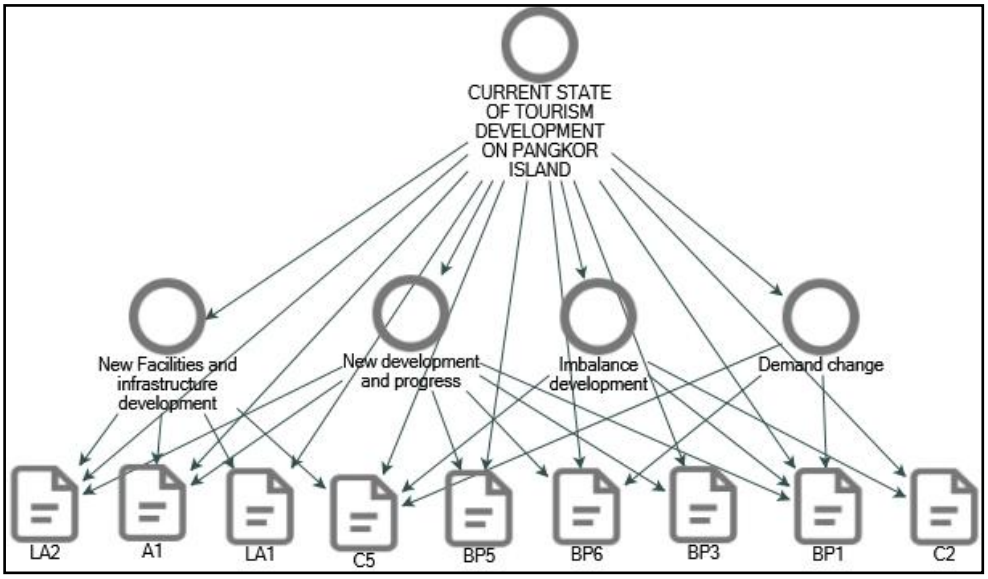


Figure 4.1 Project Map of the Stakeholders' Perceptions on the Current State of Tourism Development on Pangkor Island
Source: Researcher

Figure 4.1 illustrates a project map outlining stakeholders' perceptions of the current tourism development policy on Pangkor Island. Each element is connected to stakeholders' views, indicating how their perceptions impact various aspects of tourism development on the island. This structure aids in understanding the priorities and concerns that need to be addressed to ensure balanced and effective tourism development.

4.3.1.2 New Facilities and Infrastructure Development

Tourism development is a multifaceted endeavor that often involves extensive infrastructure improvements. Hence, the outcomes revealed on the modernization and development effort more concentrated of new shops and duty-free facilities in specific areas like Pangkor Town, with limited development in beach areas. The informants highlighted that government-led initiatives align with the principles and development strategies of the existing plans namely Perak State Structure Plan 2040 the plan that guides and controls the physical development of the entire state of Perak until 2040, Manjung District Local Plan 2030 focusing on the social development, environmental and biodiversity, sustainability, and empowerment of local authorities and Southeast Coast Special for Pangkor Island 2025 which focus on development, redevelopment, realignment, preservation, and restoration, or for the management of the local area (PlanMalaysia, 2023). Hence, new infrastructure, including improved accommodations, public spaces and roadways has contributed to a more positive image of the island, complementing its duty-free status. Some of the responses from the informants are as follows:

> *"……The island had been experiencing efforts to boost tourism, with initiatives such as infrastructure development, improved accommodations, and various water-based activities…."* ***(A1: Academia)***

> *"……. various works have also been carried out to improve the existing infrastructure on Pangkor Island including upgrade disabled facilities such as toilet, public toilet repair and Open Arena Construction in Teluk Dalam….* ***(LA1: Government)***

> *"……. Efforts include upgrading the Pangkor Gallery and Island Fisherman's Square tourism facilities and completing the business bazaar at Teluk Nipah and enhancing public amenities to attract more visitors. Additional initiatives focus on improving infrastructure, such as better road access, increased*

*signage, and the provision of modern facilities to support local businesses ……." **(LA2: Government)***

*"……. The jetty and waiting area now have a new look and are much better compared to before, featuring upgraded facilities, improved seating arrangements, and enhanced cleanliness. These improvements aim to provide a more comfortable and convenient experience for visitors……" **(C5: Community)***

Overall, tourism development on Pangkor Island has led to significant infrastructure improvements, particularly in Pangkor Town. Government-led efforts aligned with strategic development plans have resulted in upgraded accommodations, roads, and public facilities. These enhancements contribute to a more positive image of the island, supporting its duty-free status and improving visitor experience, while benefiting local businesses and communities.

4.3.1.3 New Development and Progress

The declaration of Pangkor Island as a duty-free zone on January 1st , 2020, marked a transformative milestone, revitalizing its tourism appeal and attracting a higher volume of visitors, both domestically and internationally. Informants highlighted renewed energy in tourism, particularly following the COVID-19 pandemic, with localized improvements in town centers and popular beach destinations like Teluk Nipah and Pasir Bogak. Some of the responses are as follows:

*"…. there is a lot of progress from before until today. The major one is the duty-free status. The development mainly modernized the island improving services to meet the growing demands of both tourists and the local community….." **(BP6: Tourism Business Operators)***

*"……. development has been planned well in certain area. For instance, you can enjoy a beach view at Bogak or Nipah, while duty-free shopping is more prominent in Pangkor town…." **(BP5: Tourism Business Operators)***

"……Since January 1, 2020, physical development efforts have been actively carried out as part of duty-free initiatives. These efforts include upgrading public amenities, modernizing commercial areas, and developing new attractions to support the island's duty-free status. The goal is to boost visitor numbers, stimulate local economic growth, and position Pangkor Island as a competitive and attractive destination for both domestic and international tourists……." ***(LA2: Government)***

Despite the visible progress, some informants emphasized the importance of broadening the scope of development beyond modernization. Effective transformation requires addressing underlying socio-economic challenges, including equitable opportunities, livelihood diversification, and cultural inclusiveness (Mehta et al., 2024; Sharpley & Telfer, 2015). Moreover, excessive reliance on infrastructure-driven growth risks over-tourism, resource depletion, and erosion of the island's unique identity (Hall, 2010).

"…….A lot of progress happening but sometimes things remain the same. Much of the development seems to focus on modernization. While there have been significant changes, particularly in infrastructure and public facilities, certain aspects of the island's traditional character and local lifestyle remain unchanged. Much of the development appears to focus on modernization, with efforts directed toward upgrading tourism facilities, improving transportation, and enhancing commercial areas……" ***(BP3: Tourism Business Operators)***

"….Pangkor's tourism development is at consolidation phase. Additional projects might ruin the island's original charms. Overdevelopment could lead to the loss of the island's natural beauty, and the authentic local experience that attracts many visitors. Striking a balance between modernization and preserving the island's unique identity remains a key challenge

*for future tourism planning.... **(LA2: Government)***

Overall, tourism development on Pangkor Island has advanced significantly, especially after its duty-free designation. Aligned with the Perak State Structure Plan 2040 and other local plans, efforts focus on modernizing infrastructure, particularly in Pangkor Town (PlanMalaysia, 2023). Key improvements include upgraded accommodations, better road access, and enhanced public facilities like the jetty and business bazaar at Teluk Nipah, aiming to boost the island's image and economic growth. However, concerns remain about overdevelopment threatening the island's cultural heritage and natural beauty. Informants stress the need to balance modernization with preserving Pangkor's identity and ensuring equitable socio-economic opportunities. Therefore, Pangkor Island is in the consolidation phase of tourism development, with visible infrastructure progress.

4.3.1.4 Imbalance Development

While some informants appreciated visible progress, others emphasized persistent systematic issues, including infrastructure gaps, environmental challenges, and the overall image of the island itself. Pangkor island appears to be in a phase where efforts are focused on consolidating in growth rather than expanding it. These challenges reflect an imbalance between modernization efforts and sustainable development principles. Following are some of the verbatim comments from informants include poorly planned or executed projects:

> *".... In Teluk Nipah, the government proposed a nice coastal landscape for tourists, which we all welcomed. They were supposed to be 20X10, but ended up only 10x10 feet……" **(BP1: Tourism Business Operators)***

> *".....The pier infrastructure requires significant improvements to better serve both tourists and local taxi drivers. While it may appear visually acceptable, it is not entirely suitable for efficient and safe daily operations....." **(C5: Community)***

> *"……Beach erosion has caused significant damage to various*

facilities, including structural components such as pillars. This deterioration not only compromises the safety and stability of these facilities but also negatively impacts the overall visitor experience……." ***(C2: Community)***

Overall, the findings reveal that while there is visible progress in tourism development on Pangkor Island, there are also persistent issues related to infrastructure gaps, environmental challenges, and the island's overall image. The current focus appears to be on consolidating growth rather than expanding it, leading to an imbalance between modernization efforts and sustainable development principles. Addressing these concerns requires refining tourism strategies, prioritizing environmental conservation, and ensuring that modernization efforts align with community needs. Participatory planning approaches should be employed to strengthen infrastructure functionality while preserving the island's cultural and natural heritage.

4.3.1.5 Demand Change

The shift to duty-free status has significantly boosted tourist arrivals, particularly on weekends and holidays, creating numerous economic opportunities for locals. Informants noted that lower goods prices have made the island more appealing, in line with global practices where fiscal policies like duty-free zones enhance destination attractiveness (Durbarry, 2008; Scheyvens & Momsen, 2008). The increase in tourist numbers has spurred activities such as motorcycle rentals, homestays, and food and beverage sales, driving local economic growth. Key observations included:

"…. Tourist arrivals have shown a significant increase, particularly during weekends and school holidays when visitor numbers are consistently higher. This positive trend extends to weekdays as well, where there has been approximately a 30% rise in tourist activity. The increase in arrivals suggests growing interest in Pangkor Island as a travel destination, contributing to local businesses and the overall tourism economy…" ***(BP1: Tourism Business Operators)***

> *"……very noticeable must be the reception of visitors or tourists, so tourists who visited Pangkor Island before it was declared as duty-free was indeed very low, if compared after it was declared as duty-free…."* ***(LA3: Government)***

However, informants expressed concern about over-tourism risks, infrastructure pressures, and over-reliance on shopping tourism, which might overshadow cultural or natural attractions (Cheung & Yiu, 2024; Corluka, 2019). Duty-free policies must be complemented by improved infrastructure to support sustainable growth. Poorly designed facilities could hinder tourist satisfaction and operational efficiency (UNWTO, 2020). For instance, insufficient consultation with local stakeholders, such as taxi drivers, during planning phases has created inefficiencies. Incorporating their input can align infrastructure with actual needs, ensuring long-term functionality and satisfaction. To sustain tourism growth, the island must address gaps in its infrastructure while balancing modernization efforts across its key attractions. A holistic approach integrating fiscal incentives, environmental preservation, and socio-cultural considerations is vital for long-term success.

4.3.1.6 Section Summary

Tourism development on Pangkor Island has progressed significantly, especially after its duty-free designation in 2020. This shift has led to increased tourist arrivals, infrastructure upgrades, and local economic growth. Government-led initiatives aligned with major development plans have focused on modernizing public amenities and commercial areas, particularly in Pangkor Town (PlanMalaysia, 2023). However, development remains uneven, with beach areas receiving less attention. While modernization has enhanced the island's image, concerns persist about over-reliance on infrastructure-driven growth, which may lead to over-tourism and environmental degradation.

Ongoing challenges such as infrastructure gaps, poorly executed projects, and insufficient stakeholder engagement. Addressing these issues requires a more balanced approach that includes participatory planning, environmental conservation, and equitable socio-economic opportunities. Overall, Pangkor Island is in a consolidation

phase of tourism development. While infrastructure progress and rising tourist demand signal economic growth, the island faces challenges of imbalance, environmental stress, and limited socio-cultural integration. Sustainable tourism planning must prioritize equitable development, environmental preservation, and community engagement (Shekhar, 2024)

4.3.2 Impact From Tourism Development Over the Past Few Years (RQ1.2)

Various policy making and tourism development undergone in Pangkor Island which make the island experience multiple changes such socioeconomic development (Northern Corridor Economic Region, 2022). As stated under Southeast Coast Special for Pangkor Island 2025 which the initiative is more to focus on development, redevelopment, realignment, preservation, and restoration, or for the management of the local area it is given multiple changes to the island itself. From the information gathered, four themes emerged about the changes in tourism development over the past few years on the island**: (i) Facilities and infrastructure development (ii) Economic Impact (iii) Environmental impact** and **(iv) Human capital improvement.**
Figure 4.2 below presents the project map and comprehensive elucidation.

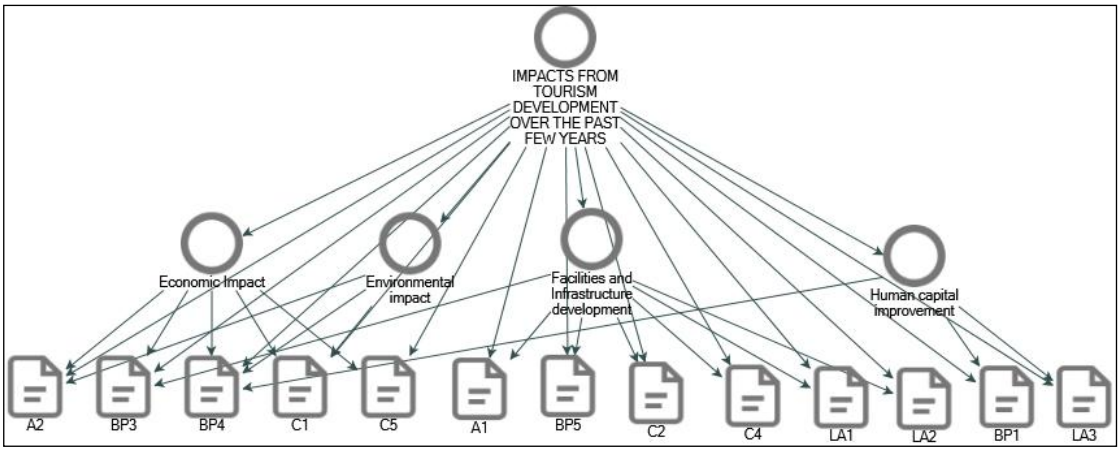


Figure 4.2 Project Map of Impact from Tourism Development Over the Past Few Years
Source: Researcher

4.3.2.1 Improvement Facilities and Infrastructure

Infrastructure plays a pivotal role in tourism development by enhancing tourist experiences and improving accessibility (Apriyanti, 2024; Gonda, 2023). Beyond improving accessibility, upgraded infrastructure strengthens the business environment and boosts revenue potential, highlighting the importance of government intervention in planning and executing tourism-related projects. Informants consistently acknowledged the pivotal role of government initiatives, particularly those spearheaded by the Manjung Municipal Council:

> *"….. "The increase in tourists and the improvement in infrastructure seem to be positive from my perspective, particularly when it comes to the road conditions. Compared to how things were before, there is a noticeable difference. The roads are now better maintained and more accessible**…" (BP3: Tourism Business Operators)***
>
> *"…… indeed, I see a lot of happening here and the council is very helpful to upgrade tourism industry here such as facilities and infrastructure. I can see the change before and now…." **(C4: Community)***
>
> *".... physical development on Pangkor Island creates a positive impact on the local communities. The Manjung Municipal Council, as a Local Authority, very active in upgrading and improving infrastructure and facilities on Pangkor Island, including public toilet, suraus, waqf huts and swing structures as well as tourism signs made from recycled materials, creative products of the MPM Landscape Unit…." (**LA2: Government**)*
>
> *"……. Changes in tourism development can include infrastructure improvements such as roads, new jetty (Marina), and the introduction of new attractions……." **(A1: Academia)***

Improvements such as upgraded roads, new jetties, and emerging attractions signal measurable advancements in tourism infrastructure. This macro-level perspective underscores the tangible benefits of development in boosting accessibility and fostering economic growth (Dodds & Butler, 2019). However, concerns exist regarding equitable benefits. Research suggests that marginalized groups, such as small-scale fishers, are often excluded or displaced by tourism-driven projects new citation (Miller, 2022). A balanced approach incorporating human capital, physical infrastructure, and sustainable practices is essential to ensure inclusive development outcomes. Concerns were also raised about degraded beach facilities and uncoordinated land use:

> *"…Previously, the condition of the beach facilities was much better, but now there is noticeable damage in several areas. Many of the structures, such as seating areas and shelters, are deteriorating due to wear and tear, as well as environmental factors like beach erosion…."* ***(C2: Community)***

> *"…. The development on the island seems somewhat unorganized, largely due to the limited land available for new projects. With space constraints, new constructions often feel cramped or poorly planned, which can lead to inefficient use of resources and inconsistent development across different areas…."* ***(C4: Community)***

Such issues highlight the need for integrated spatial planning that balances environmental sustainability, community well-being, and tourism growth. Collaborative and transparent decision-making processes are critical to achieving sustainable progress. Overall, tourism infrastructure on Pangkor Island has improved significantly, with better roads, new jetties, and upgraded public amenities led by the Manjung Municipal Council. These developments enhance accessibility and support local businesses. However, concerns remain about deteriorating beach facilities, unorganized land use, and the exclusion of marginalized groups.

4.3.2.2 Economic Impact

Tourism development in Pangkor Island has driven economic growth alongside physical infrastructure improvements. The introduction of duty-free status has opened diverse business opportunities, such as water sports and vehicle rentals, significantly contributing to the island's economy growth of rental vehicle services and increased interest in water sports and sports events (Morfoulaki et al., 2023; Zagnoli & Radicchi, 2009). These developments have opened new opportunities for the local community and businesses, leading to a more vibrant economic landscape. Informants remarked:

> *"…. The duty-free status is relatively new to us, but it has already made a significant impact on businesses across the island. Whether small roadside vendors or larger retail stores, everyone seems to benefit from the increased tourist flow and spending….."* ***(C5: Community)***

> *"…. The duty-free status of Pangkor Island has had a profound effect on the local economy by attracting a higher volume of tourists. This influx has not only increased commercial activity but also diversified business opportunities. The increased demand for goods and services has strengthened the local market, making tourism a vital driver of economic development on the island…."* ***(A1: Academia)***

While infrastructure improvements have attracted tourists and spurred local commerce, concerns about reduced purchasing power and rising living costs persist. Tourists now prioritize affordable items like chocolates over traditional souvenirs, signalling shifts in spending behaviors (Gössling, Scott & Hall, 2020). The combined effect of these factors suggests that while tourism infrastructure improvements have had a positive impact, the economic challenges and changing consumer behaviors are also shaping the current economic environment on the island. Following are some of the verbatim feedback from informants:

> *"…. Increase in tourists but purchasing power is relatively less. Maybe they don't want to buy souvenirs anymore. I heard that*

many people buy chocolates compare than souvenirs…." (BP3: Tourism Business Operators)

"……Now the economy is increasing, the prices of all goods have gone up and there are less tourists. It's not like 5 years ago ,10 years ago, where many people nearby Pangkor even visited but now there are less because sometimes the cost of living is high, right and perhaps they need to save and very calculative when it comes to travel....." ***(C1: Community)***

While rising costs and reduced purchasing power pose challenges, new attractions like water sports, sports events showcase Pangkor's unique geography and appeal. Informants observed increased local entrepreneurial efforts to meet demand, such as vehicle rentals:

"…. There is an increase in tourists' number and from that I saw many local have also started to do and rental vehicles business such as motorcycle to coop with the demand …." (BP4: Tourism Business Operators)

Overall, duty-free status on Pangkor Island have boosted the local economy by increasing tourist arrivals and creating new business opportunities like water sports and vehicle rentals. While these changes benefit both small and large businesses, concerns remain about rising living costs and reduced tourist purchasing power. Despite these challenges, local entrepreneurs are adapting to new demands, fostering economic resilience and innovation.

4.3.2.3 Environmental Change

Environmental change is an ongoing issue that often accompanies increased tourism and development. On Pangkor Island, this has manifested in visible degradation of natural landscapes and coastal areas. Informants expressed concern over the degradation of natural landscaped, including significant erosion at Teluk Nipah, and declining beach accessibility.

"…. Previously, here is more way better. Before, we can see the beach view, and easy for the visitor to go down. But now can see a lot of damage to the beach facilities, and the pathways are not as accessible as before. The erosion also makes it worse because some areas are no longer safe for tourists……..." ***(C2: Community)***

"…. Duty-free is one thing, but erosion is another serious concern, especially in Nipah Bay. The coastline is changing, and some parts of the beach are getting narrower. This affects not only the environment but also local businesses that rely on beach activities. If this continues without proper intervention, it may reduce tourist interest and harm our livelihoods in the long run……" ***(C5: Community)***

These changes reflect the broader environmental impacts of rising tourist activity and infrastructure development, which have led to noticeable damage to the island's once pristine coastal environment. The shift from a more accessible and visually appealing beach environment to one marked by erosion and degradation emphasizes the urgent need for sustainable practices to protect and preserve the island's natural resources (Chin et al., 2023). Studies highlight that tourism development often triggers environmental issues such as habitat destruction, pollution, and erosion (Hall, 2010; Gössling & Hall, 2019). Pangkor's duty-free status parallels cases like Langkawi, where increased tourist activity has strained natural resources (Siti-Nabiha et al., 2008). Loss of beach aesthetics and accessibility not only affects tourist numbers but also threatens income streams and social well-being. Overall, addressing these challenges requires sustainable practices and active community engagement to balance development with conservation efforts.

4.3.2.4 Human Capital Improvement

Developing human capital is vital for enhancing local capacities and fostering economic growth. Several programs on Pangkor Island focus on equipping the community with skills tailored to the tourism sector. One notable initiative is the

seafood preparation program, which enhances locals' abilities to produce and market seafood products. The approach aligns with studies emphasizing capacity-building initiatives as critical for enhancing the resilience of local communities in tourism-dependent economies. For example, Biddulph and Scheyvens (2018) highlight that microfinance and training programs can significantly enhance the agency of local entrepreneurs. On top of that, Ashley et al. (2000), highlighted small grants can catalyze local business in resources-dependent areas where prioritize inclusive economic benefits and poverty alleviation. Informants detailed its impact:

> *"**….** we conducted a seafood preparation program among local entrepreneur with collaboration with NCER on how to produce seafood product. The program took 10-12 days and involved 40 of them. NCER provided the trainers and capital and at the end of the program, NCER offer them special grant to start the business which worth RM2000 each. …."* ***(BP1: Tourism Business Operators)***

Beyond technical skills, the government has facilitated training programs targeting various industry stakeholders, emphasizing tourism digitalization and customer engagement:

> "We provide training for all industry players, including Beach Boys, tourist guides, taxi associations, and fishermen's associations. For example, we teach tourism digitalization through Perak Digital to educate them on communicating with tourists, creating travel packages, and improving services…" ***(LA3: Government).***

While such efforts align with global trends in tourism digitalization to enhance competitiveness (Gretzel et al., 2015), challenges remain. Older or less tech-savvy individuals may resist digital adoption (Zapletal et al., 2023). By investing in initiatives like seafood preparation, entrepreneurial training, and digital literacy, the local workforce becomes better positioned to leverage opportunities within the tourism industry. Although barriers to implementation persist, such efforts can foster economic resilience and inclusivity, ensuring long-term benefits for Pangkor's community:

> *"…. However, our knowledge in digital technology, especially in using online booking systems, digital marketing, and social media promotion, is somewhat limited—particularly among senior citizens. This is something we really want—to improve our understanding and ability to adapt to the growing digital demands in the tourism industry….."* ***(BP4: Tourism Business Operators)***

Overall, human capital development is essential for strengthening local capacities and fostering economic growth on Pangkor Island. Program collaboration equips local entrepreneurs with technical skills and financial support. Additionally, the government offers training for industry stakeholders align with global trends in enhancing digital literacy and entrepreneurship to improve competitiveness. However, challenges arise particularly for older community members who struggle with adopting digital technologies like online booking and social media marketing. Informants expressed a strong desire to improve their digital skills to meet the evolving demands of the tourism industry. Sustained investment in skill development and inclusive programs is crucial to ensure long-term economic resilience and equitable benefits for the community.

4.3.2.5 Section Summary

The section on stakeholders' perceptions of current tourism development in Pangkor Island highlights the pivotal role of facilities and infrastructure development in enhancing the island's tourism appeal. Upgrades to infrastructure, including roads and jetties, have substantially improved tourists' experiences and accessibility, positively influenced the business environment and potentially boosted revenue streams for local enterprises. Informants highlighted the active involvement of the Manjung Municipal Council, which has played a crucial role in these advancements by upgrading public amenities such as toilets, suraus, and eco-friendly tourism signs made from recycled materials. These improvements not only uplift the island's image but also benefit the local community by enhancing living conditions and fostering tourism growth.

From an economic perspective, the duty-free status and infrastructure enhancements have attracted a higher influx of tourists, creating opportunities for local businesses. Nevertheless, informants pointed out mixed economic outcomes. While some enterprises report increased revenue from the growing number of visitors, others observe limited benefits due to tourists' preference for duty-free goods such as chocolates rather than traditional souvenirs. Moreover, the rising cost of living poses a challenge, potentially deterring visitors from nearby regions. Despite these challenges, Pangkor Island continues to innovate its offerings to attract diverse groups of tourists. The introduction of water sports and sports events, leveraging the island's unique geographical features, has become a new highlight, attracting visitors. Informants emphasized that these activities contribute to the island's appeal as a vibrant destination. However, environmental concerns, particularly erosion at Teluk Nipah, remain pressing issues that demand urgent attention to preserve the natural beauty essential to sustaining tourism. The views gathered from informants reflect the intricate interplay of opportunities and challenges in Pangkor Island's tourism landscape. While infrastructure development and innovative attractions show promise, addressing environmental issues and managing economic disparities will be crucial for ensuring the long-term sustainability of tourism on the island.

Lastly, the development of human capital has emerged as a critical strategy for sustaining tourism-led growth. Initiatives such as seafood preparation training and tourism related skills development facilitated through collaboration with agencies like NCER and Perak Digital are equipping locals with the tools to participate more meaningfully in the tourism economy.

4.3.3 Key Livelihood Assets Within the Local Community (RQ1.3)

Livelihood assets enable individuals and communities to pursue various livelihood strategies and achieve well-being. Informants contended that fisheries sector in Pangkor Island is an important source of income and local livelihoods of the island had been dominated by this activity. Additionally, tourism has been the key development focus of Pulau Pangkor, its economy is driven by other sectors such as fisheries, wholesale and retails, commerce and boat building. From the evidence collected, five main themes emerged about the key livelihood assets within the local

community on the island and their perspectives provide a comprehensive view of the economic landscape of Pangkor Island**: (i) Natural assets (ii) Financial assets (iii) Physical assets (iv) Social assets** and **(v) Human assets.** Each of these assets plays a crucial role in shaping the community's livelihood strategies and resilience.

Figure 4.3 below presents the project map and comprehensive elucidation of the key livelihood's assets of the Pangkor Islanders.

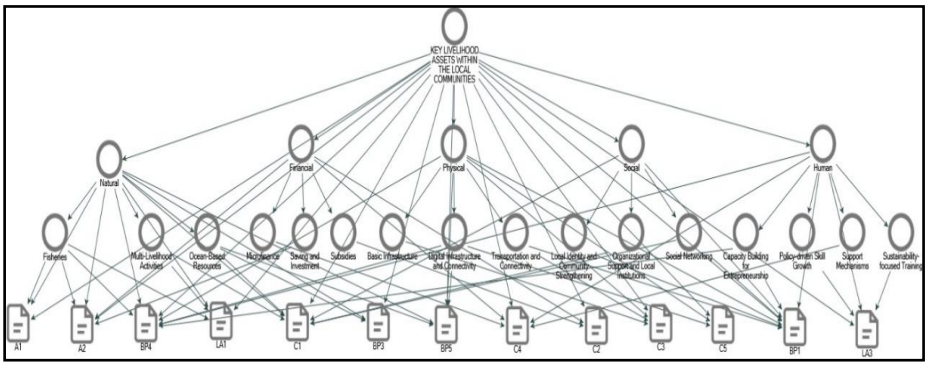


Figure 4.3 Project Map of the Key Livelihood Assets in Pangkor Island
Source: Researcher

4.3.3.1 Natural Assets

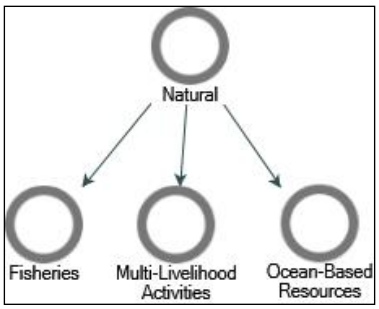


Figure 4.4 Natural Assets in Pangkor Island
Source: Researcher

From the interviews, informants consistently highlighted marine resources as fundamental to the livelihoods of Pangkor Island residents. The fishing industry serves as the primary income source, with many households relying on coastal fisheries. This industry plays a critical role in the local economy and the sustainability of coastal communities. Beyond fishing, the island's marine environment, including its beaches and natural beauty, was identified as a major livelihood asset. These natural features are central to tourism-based economies, attracting visitors for activities such as snorkelling,

kayaking, jet skiing, and banana boating. Popular beach destinations include Teluk Nipah, Teluk Dalam, and Teluk Belanga. The incorporation of water sports into the local economy has expanded the economic base, complemented traditional fishing practices, and enhancing community resilience and financial stability.

The marine environment not only provides food but also supports related economic activities, which are increasingly significant for the local economy (Ho., 2019). However, this reliance on natural assets underscores the urgent need for sustainable management practices to mitigate threats such as overfishing and environmental degradation. For example, informants expressed concerns over insufficient monitoring of fishing activities, which could disrupt the coral reef ecosystem. Sustainable fishing practices, critical to maintaining healthy fish populations, were cited as an area requiring further investigation and improvement.

> *"……The key livelihood assets within the local community on Pangkor Island is from the fishing industry. Fishing has long been the backbone of the local economy, providing both direct income for fishermen and supporting related industries such as seafood processing and local markets. Many households rely on the sea as their primary source of livelihood, with generations of families continuing the fishing tradition……."* ***(A1: Academia)***

> *"……The main asset of local community must be the sea and the beach. These natural resources are the primary attraction for tourists who visit Pangkor Island to enjoy the scenic ocean views and purchase fresh seafood. The coastal environment supports various tourism-related businesses, including seafood restaurants, souvenir shops, and water-based recreational activities…."* ***(BP5: Tourism Business Operators)***

> *"…In Teluk Nipah, most people are highly dependent on ocean-based activities as their main source of income and assets. Many families sustain their livelihoods through these activities, with some diversifying their income by offering*

accommodations or selling local product.…" ***(C1: Community)***

"…Fishing is more dominant than other industries, and if you look around, you'll see fishing boats docking and sailing out daily to catch fish" …. ***(BP4: Tourism Business Operators)***

However, informants also highlighted the strain on natural resources, suggesting that sustainable fishing practices and effective marine resource management are essential. For example, zones used for traditional fishing often coincide with areas designated for recreational tourism activities, creating risks of conflict. Small-scale fishers expressed concern that water sports operations especially jet skiing and banana boating disrupt fishing activities, damage fish breeding grounds, and contribute to noise pollution that alters marine species' behaviour. The issue of carrying capacity was also raised, especially in hotspots like Teluk Nipah, where the concentration of tourist activities may exceed the ecological threshold of the coastal environment. Increased boat traffic and tourism infrastructure development have raised concerns about water pollution, coral reef damage, and declining fish stocks. These pressures directly affect both ecological sustainability and the long-term viability of marine-based livelihoods. As one government representative explained:

"If we don't clearly separate the zones and limit certain activities, both fishers and tourism operators will suffer. Right now, we're seeing more overlap between where people fish and where tourists go for water activities like jet skiing and snorkelling. This is already causing friction. Fishermen complain that the noise and boat traffic scare away the fish, and tourism operators worry about safety and space. Without proper zoning and some kind of coordinated regulation, it will get worse. We need balance—not just to protect the marine environment, but to ensure both sectors can continue to benefit the community in the long run." ***(LA1: Government)***

These measures are necessary to maintain not only the ecological balance but also the economic well-being of the island community (Masud et al., 2015). Overall, natural assets, particularly marine resources, are vital to the livelihoods of Pangkor

Island's community. The fishing industry remains the primary income source, supporting local households and related sectors like seafood processing and coastal markets. The island's natural beauty, including its beaches and marine environment, also drives tourism, with popular destinations such as Teluk Nipah, Teluk Dalam, and Teluk Belanga attracting visitors for water-based activities like snorkelling, jet skiing, and banana boating. This integration of fishing and tourism diversifies the local economy, enhancing community resilience and financial stability. The overexploitation of marine resources and the lack of monitoring, particularly regarding fishing activities and their impact on the coral reef ecosystem become a challenge. Sustainable fishing practices and improved marine resource management are deemed crucial to preserving ecological balance while ensuring the long-term economic well-being of the Pangkor Island community.

4.3.3.2 Financial Assets

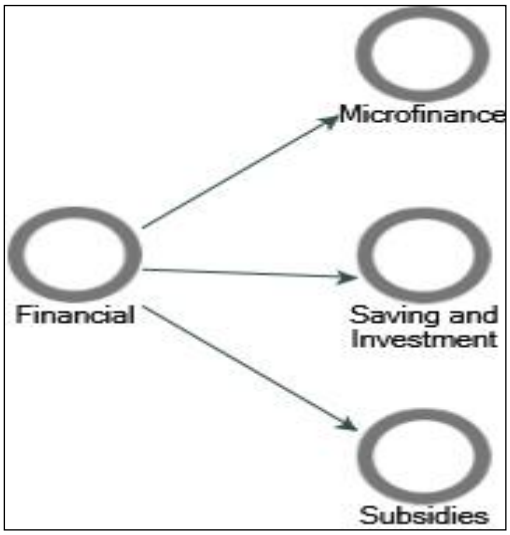


Figure 4.5 Financial Assets in Pangkor Island
Source: Researcher

Access to financial resources is crucial for investment in livelihood activities. Many local fishermen face challenges in obtaining credit and financial services, limiting their ability to invest in improved equipment or diversify income sources (Ho et al., 2018). Initiatives such as microfinance programs or community savings schemes could significantly enhance financial assets and provide greater economic stability for the

community. As highlighted, the livelihood assets on Pangkor Island are interconnected, and improving access to financial resources would positively impact the overall economic resilience of its residents.

> *"…. access to savings, credit, and informal borrowing networks among family and friends. These resources enable individuals and households to invest in education, small businesses, or traditional livelihoods like fishing" …* ***(A1: Academia)***

> *"…. MARA cooperation providing micro-loans to locals who may not have access to formal banking systems. These financial aids offer a lifeline for small business owners, allowing them to start or expand their ventures, especially in the tourism sector where initial capital can be a significant barrier." …* ***(BP5: Tourism Business Operators)***

To assess financial assets, the component assess are informants living standards. Capital assets, such as revenue, money, and financial stability, are vital factors in the SLA for creating and maintaining livelihoods (Tambe, 2022). Informants also discussed the community's average earnings, which derive from fishing, tourism-related businesses, and self-employment, often sufficient to support families. Government subsidies, including fuel subsidies for fishermen and financial assistance for equipment, have been instrumental in alleviating financial burdens. However, most informants were reluctant to disclose exact income figures, citing personal reasons.

> *"…The government supports us by providing fuel subsidies and essential small equipment, which is especially helpful during challenging times. This assistance is crucial in helping us sustain our livelihoods and continue our daily activities…."* ***(C1: Community)***

Overall, improving access to diverse financial resources is crucial for strengthening the island's economic stability and supporting sustainable livelihoods. Access to financial assets is vital for sustaining and improving livelihoods on Pangkor Island. Local fishermen and small business owners often face challenges in securing

formal credit, limiting their ability to invest in better equipment or diversify their income. Microfinance programs, such as Majlis Amanah Rakyat or MARA's micro-loans, provide essential financial support for those without access to traditional banking systems, enabling small business growth in the tourism sector. Informal borrowing networks and community savings also play a critical role in supporting household investments in education and business ventures. Additionally, government subsidies, including fuel assistance and equipment support, help alleviate financial pressures, particularly for fishermen. While these financial aids contribute to economic resilience, many informants were hesitant to disclose specific earnings.

4.3.3.3 Physical Assets

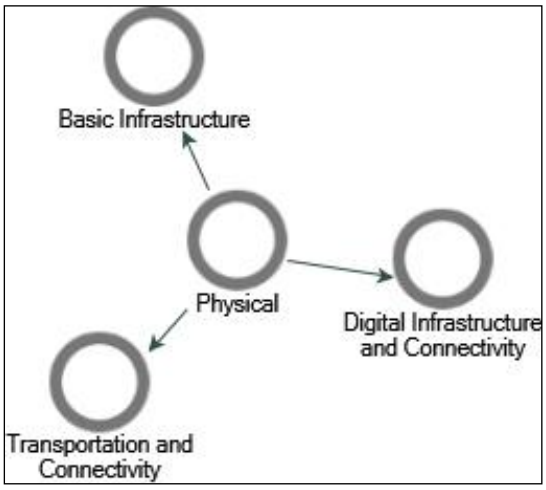


Figure 4.6 Physical Assets in Pangkor Island
Source: Researcher

Infrastructure, such as roads, ports, and communication facilities, is vital to the economic activities on Pangkor Island. Improvements in tourism infrastructure, including roads, jetties, and ferry services, have enhanced accessibility, and supported local businesses (Hanafiah et al., 2016). The study found that various infrastructures associated with communities' standard of living in Pangkor island. The required accessibilities facilities needed such as water supply, medical facilities, market, and school are sufficient. On top of that, the ability of local communities to reach the other side of land also ease as they provided frequent ferry with lower cost for them.

Informants acknowledged that reliable infrastructure, including affordable ferry services, facilitates trade and movement between the mainland and the island. The development of tourism-related facilities, such as accommodation and transport services, has further bolstered economic opportunities. This is particularly significant for small-scale businesses.

> *"…. Road networks connecting residential areas to the main town facilitate the daily movement of goods and people, ensuring smoother operations for local businesses. Electricity supply is also reliable in the main areas…."* ***(C3: Community)***

> *"…. The ferry services connecting Pangkor Island to mainland ensure consistent supply chains for goods and access for residents to mainland resources. Additionally, the ferry services provide residents with easier access to essential mainland resources, such as healthcare, education, and administrative services…."* ***(BP1: Tourism Business Operators)***

Despite these advancements, challenges remain. Increased traffic during peak tourism seasons leads to congestion, and telecommunication infrastructure struggles with limited bandwidth. Strengthening these physical assets is essential to supporting the growing demands of residents and tourists. A study by Chong et al. (2025) discusses how technological limitations in telecommunication infrastructure can impede business operations, especially in remote areas.

> *"…. Pangkor Island's telecommunication infrastructure, including mobile towers and internet connectivity (normally Celcom and Maxis), supports the needs of local businesses and residents alike. Occasionally, internet speeds slow down, and service disruptions occur particularly during peak (****BP4: Tourism Business Operators)***

> *"……Sometimes, my mobile connection drops out for hours. This impacts everything, from staying connected with friends and family and other jobs related. Reliable connectivity is a*

basic need for us now…" ***(C4: Community)***

"…. The slow internet speed during peak tourist seasons makes it difficult sometimes to manage online bookings, respond to customer inquiries, and process digital payments. This issue affects many tourism operators who rely on a stable internet connection for their day-to-day business operations" …. ***(BP5: Tourism Business Operators)***

Overall, infrastructure development on Pangkor Island plays a crucial role in supporting economic activities and improving the community's standard of living. Enhanced road networks, reliable electricity, and affordable ferry services facilitate movement, trade, and access to essential resources like healthcare and education. Tourism infrastructure, including accommodation and transport services, has strengthened local businesses, particularly small-scale enterprises. However, challenges persist, especially during peak seasons when increased traffic causes congestion, and telecommunication infrastructure struggles with limited bandwidth. Addressing these issues is vital to sustaining economic growth and ensuring that both residents and businesses can adapt to the rising demands of tourism development.

4.3.3.4 Social Assets

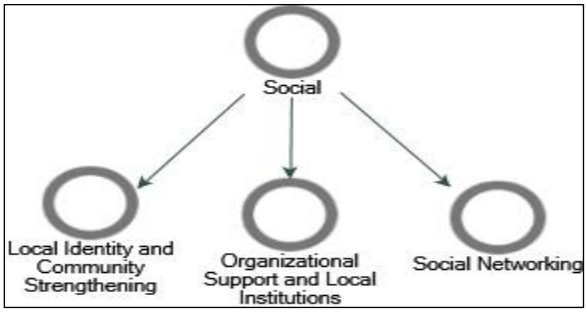


Figure 4.7 Social Assets in Pangkor Island
Source: Researcher

Social assets are the social networks within the Pangkor Island community are vital for sharing resources, information, and support and considered as the connection and network among the people and communities which depending to each other in order

to control and overcome challenges, grab opportunities as well as aim to achieve their own goals (Abunyewah et al, 2023: Baptista et al., 2021). The cooperative practices among fishermen, facilitated by mobile communication, exemplify the strength of social ties in enhancing community resilience (Shaffril et al., 2022).

The relationship among member of communities is crucial especially to ensure to the development of the island and community identity as well as decision making on any tourism development (Gómez-Andújar, 2021). The local organization network and memberships such as 'beach boy association', 'Persatuan chalet budget Pangkor', fishermen association and hawker association give a lot of elucidation. The organization assisted on the development idea through direct discussion, regular meetings, environmental conservation, and economic empowerment where they act as an intermediate party between communities' voice and local agencies. The relationship among community member, social support, and membership with various social association are key to important development of an island's communities (Masud et al., 2015) and fostering a sense of ownership among the local communities.

> *"……. We always do a direct discussion with the local to ensure they know what will happen and happening in the island. We have monthly meetings, or we have quarterly meetings, every 3 months. So, in our meeting, we will invite all the industry players such as the Beach Boys Association, the Fishermen's Association, the Hawkers' Association, the Hoteliers. We engage with them to do the beach cleaning and other activities and of course local communities also participated…." (**LA3: Government)***

> *"…. We conducted regularly meeting with Beach boy association to look into this plan because it is important to maintain the environment and strengthening community relationship…." (**C1: Community)***

On top of that, communities have benefited from financial and social support programs aimed at improving livelihoods. These include homestay incentives, skill development workshops such as seafood pastry or pizza and local food production

(*sambal* and fish cracker), and financial aid to encourage entrepreneurial ventures. Such initiatives enable the diversification of income sources, which is crucial for long-term resilience. The findings provide diverse insights into economic and social dynamics of Pangkor Island.

> *"…. we want to develop our local identity and to help them in all aspects. As example we connect hawker association with NCER and created a program to provide seafood-based skills. We also develop other connections with UiTM and Maybank where we assist 40 entrepreneurs in doing business based on Islamic concept. No fees needed and we gave them allowance RM60/day …."* ***(BP1: Tourism Business Operators***

Overall, social assets on Pangkor Island play a crucial role in fostering community resilience and supporting economic activities. Strong social networks, facilitated by organizations like the Beach Boys Association and fishermen's associations, promote collaboration, environmental conservation, and community engagement. Regular meetings with local industry players ensure community participation in decision-making and tourism development. Financial and social support programs, including skills workshops and entrepreneurial aid, further enhance livelihoods by encouraging income diversification. These initiatives strengthen social cohesion, empower local businesses, and foster a sense of ownership, ensuring long-term sustainability and community development on Pangkor Island.

4.3.3.5 Human Assets

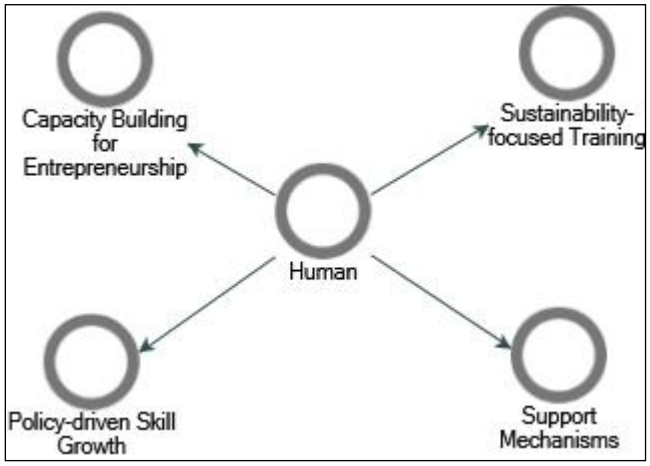


Figure 4.8 Human Assets in Pangkor Island
Source: Researcher

Human capital, encompassing knowledge and skills, is vital for sustaining livelihoods. Informants highlighted the importance of traditional fishing skills and sustainable practices. Training and educational opportunities serve as essential for encouraging community members to take an interest in related activities and break the cycle of deprivation. Efficient labour is dependent on healthy and well-skilled people. The skill development initiatives offered by local government and collaborations such as workshop and training are the most crucial assets highlighted by the informants to foster entrepreneurship within local communities. It is inclusive seafood production, workshop related to improving fishing methods, and entrepreneurship skills. Below is the verbatim quotation from community and tourism business operators.

> *"……..A lot of skill development offered by the local government. Especially on how to run this homestay. We start with workshop and then they offer us the loan and incentive to develop the new house…."* ***(C4: Community)***

> *"……we collaborated with NCER to develop a seafood preparation program which not limited to food like 'tomyam' etc but they taught on how to do seafood pizza. This is to make them ready and prepare to be an entrepreneur…."* ***(BP1:***

Tourism Business Operators)

*"…. Through the National Tourism Policy (NTP), transformational strategies are consistently considered in the development plan for Pangkor Island, as outlined in the Pangkor Island Special Area Plan or (Rancangan Kemajuan Kerajaan) (RKK). The beach cleaning program aims to preserve the coral, as coral restoration is a time-consuming process and challenging due to the potential damage caused by boat landings…." **(LA3: Government)***

However, there is a noted gap in human capital development, particularly in terms of education and training that could enhance the community's capacity to adapt to changing economic conditions (Masud et al., 2015). Insufficient education and vocational training significantly hinder communities' adaptability to changing economic conditions. Programs aimed at improving education and vocational training could bolster these human assets and empower the community to diversify their income sources. According to Scoones (1998), a sustainable livelihood approach prioritizes the development of diverse and transferable skills that enable individuals to leverage various resources effectively. For instance, in tourism-dependent regions, combining technical skills (e.g., digital marketing) with traditional knowledge could open new pathways for income generation. Diversifying income sources is a well-documented approach to mitigating risks in economies reliant on a single industry (Allison & Ellis, 2001). For Pangkor Island, where tourism dominates, training programs that incorporate entrepreneurial skills, financial literacy, and environmental management could foster resilience. However, as informants noted, the current educational initiatives are not equipping them with these broader competencies.

*"...We still lack proper education programs tailored to the needs of our community. Most of the training offered is very specific and doesn't help us adapt to other opportunities..." **(BP4: Tourism Business Operators)***

"...We don't just need programs; we need the right type of program or training that allows us to be flexible in making a

living ....” ***(BP1: Tourism Business Operators)***

Overall, human capital is essential for sustaining livelihoods on Pangkor Island, with informants emphasizing the value of traditional fishing skills and skill development programs. Local government collaborations, such as seafood preparation workshops and homestay training, foster entrepreneurship and support economic growth. However, the education and vocational training limit the community’s ability to adapt to changing economic conditions. Broader competencies, including financial literacy and digital skills, to diversify income sources is needed. Expanding educational initiatives to provide adaptable, multi-skilled training could enhance the community’s resilience and ability to navigate the evolving tourism-driven economy.

4.3.3.6 Section Summary

The livelihoods of Pangkor Island’s community are supported by a range of interlinked assets. Natural assets**,** especiall**y** marine resources, are central to both the fishing and tourism sectors. While fishing remains the primary income source, marine-based tourism has expanded economic opportunities. However, concerns over overfishing and environmental degradation highlight the need for sustainable marine resource management. Financial assets remain limited for many, particularly fishermen and small business owners who face challenges accessing formal credit. Government subsidies and microfinance programs, such as MARA loans, help ease financial burdens and support entrepreneurship. Physical assets**,** including improved roads, ferry services, and tourism infrastructure, have enhanced mobility, trade, and business opportunities. Nevertheless, peak-season congestion and limited digital infrastructure remain challenges. Social assets, such as local associations (e.g., beach boys, chalet owners, fishermen), foster cooperation, empower community participation in tourism development, and support income diversification through workshops and grants. Lastly, human assets, like skills and knowledge, are vital for sustaining livelihoods. While traditional fishing skills are valued, there remains a gap in education and vocational training. Strengthening these livelihood assets holistically is essential to improve resilience, promote sustainable development, and enhance the overall well-being of Pangkor Island’s community.

4.3.4 Community Assets Been Influences by Tourism Development Policies (RQ 1.4)

From the information gathered, six main themes emerged about how communities' assets been influences by tourism development policies**: (i) Natural assets and sustainability (ii) Financial assets and income diversification (iii) Physical assets development (iv) Social assets and community well-being (v) Human and capacity building** and **(vi) Technology assets and development.** Each theme represents a critical aspect of how tourism policies affect and shape the assets and overall well-being of communities, underscoring the multifaceted nature of tourism development's impact.

Although policy documents and strategic plans emphasize sustainable development, capacity building, and technological advancement, actual implementation often falls short due to limited coordination, weak enforcement, and insufficient stakeholder engagement. For instance, despite the emphasis on environmental sustainability under the "natural assets" theme, informants noted the continued degradation of marine ecosystems and lack of marine zoning enforcement. Similarly, while financial diversification is promoted on paper, support for micro-entrepreneurs in tourism remains inconsistent and often inaccessible to marginalized groups. Physical infrastructure development was also found to be uneven, with concentrated improvements in high-tourism areas while more remote villages remain underserved. These discrepancies reveal a disconnect between policy intentions and tangible outcomes, highlighting the need for more adaptive, community-driven, and accountable implementation mechanisms to ensure that tourism development genuinely strengthens local assets and contributes to inclusive growth on Pangkor Island.
Figure *4.9* shows all the theme.

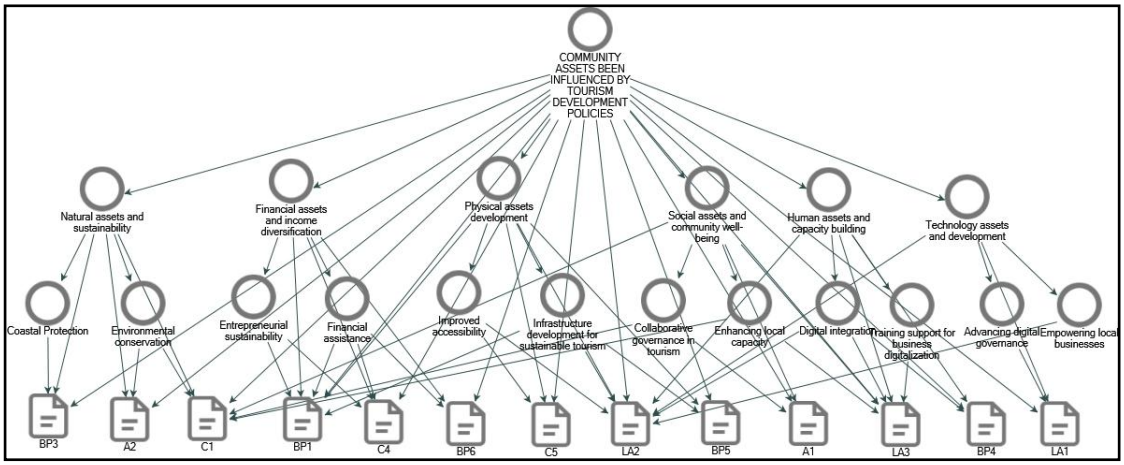


Figure 4.9 Project Map of The Community Assets Been Influenced by Tourism Development Policies.
Source: Researcher

4.3.4.1 Natural Assets and Sustainability

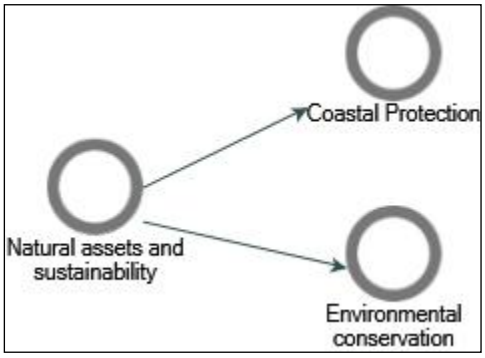


Figure 4.10 Natural Assets and Sustainability
Source: Researcher

Tourism development policies have significantly influenced community assets, particularly in the realm of natural resources. Tourism development policies must balance economic growth with environmental sustainability. Poorly regulated tourism can result in environmental degradation, including pollution, habitat destruction, and strain on natural resources (Hall, 2021). Informants highlighted the importance of conserving natural resources, as seen in initiatives like the conservation efforts on Pulau Giam. These efforts aim to protect and sustain the island's unique ecological features, ensuring that tourism does not undermine the environmental integrity of the area.

Infrastructure development such as the bridge at Giam Island, facilitates accessibility while supporting sustainable tourism practices. However, concerns arise regarding whether increased visitor numbers might exceed the ecosystem's carrying capacity. Additionally, visitor compliance with designated paths is uncertain without proper enforcement. A participatory approach, incorporating educational campaigns for tourists, could enhance conservation efforts. Research highlights that infrastructure, such as walkways or bridges, can mitigate direct damage to marine habitats if well-designed and regulated (Arkema et al., 2024). However, studies also warn of unintended consequences, including overcrowding and indirect environmental impacts (Hall, 2021).

> *"…. the plan for Pulau Giam is currently under discussion. They are considering building a bridge from this beach directly to the island, which will allow visitors to walk across without damaging the coral reefs…."* ***(C1: Community)***

Further findings indicate ongoing coastal redevelopment projects aimed at enhancing both aesthetic appeal and environmental sustainability. These initiatives include coastal restoration, which boosts tourism viability while raising concerns about long-term ecological resilience. Studies suggest that hard engineering solutions, such as seawalls, can temporarily stabilize shorelines but may disrupt natural sediment movement, exacerbating erosion issues (James et al., 2023). In contrast, softer approaches, such as mangrove replantation, offer ecological and protective benefits (Islam et al., 2024). Integrating conservation with development ensures tourism growth while protecting natural assets critical to Pangkor Island's ecological health and tourism appeal. Following are some of the verbatim feedback from informants:

> *"……The municipal council plans to upgrade the current condition of Teluk Nipah beach. Previously, beach erosion was quite severe, and with the construction of a seawall, the situation may improve. This will also have an impact on future tourism in the area…."* ***(BP3: Tourism Business Operators)***

While tourism is widely acknowledged for contributing to the economic vitality of destination communities, its impact on natural resources often. This

imbalance can diminish the visitor experience over time, which may lead to a decline in tourist arrivals, highlighting the importance of sustainable tourism planning that prioritizes environmental stewardship alongside economic goals.

> *"…. certain tourism policies have led to overuse of some natural resources. For instance, beaches are more crowded, and marine life is affected by pollution from increased tourism activities and loss of island's charm…"* ***(A1: Academia)***

Overall, tourism development policies on Pangkor Island have influenced natural assets, raising concerns about environmental sustainability. While new infrastructure like bridges and coastal upgrades can improve access and support tourism, there's growing concern about the environmental impact if not properly managed. Locals emphasized the need to protect places like Pulau Giam through conservation and education. Therefore, sustainable tourism planning is essential to safeguard ecological integrity while supporting long-term economic benefits for the island community.

4.3.4.2 Financial Assets and Income Diversification

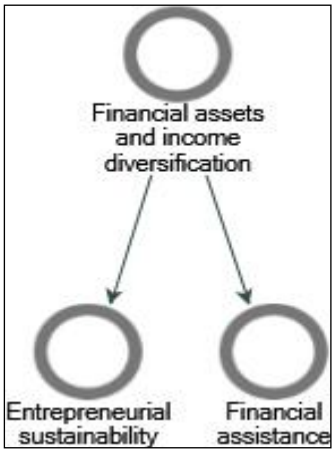


Figure 4.11 Financial Assets and Income Diversification
Source: Researcher

Tourism development policies have significantly influenced community financial assets, providing economic benefits through increased income and business opportunities. Informants reported that tourism expansion has generated revenue streams for households, particularly through hospitality services and local crafts. Government financial aid and training programs further support tourism-related entrepreneurship. According to Asmit et al. (2024), government grants play a vital role in empowering micro-entrepreneurs, especially in regions dependent on natural resource-based economies. Additionally, tourism-focused training improves local business capacity and competitiveness (Ashley et al., 2007). However, such financial support is often seasonal, raising concerns about long-term economic resilience (Abbass et al., 2022).

> *"… the financial assistance from the government has helped me to some extent in starting this business. My husband is a fisherman, and with the economy being uncertain lately, we have been working on developing the homestay to increase our income…"* ***(BP6: Tourism Business Operators)***

> *"…. During the COVID period, the government provided a lot of support in terms of financial assistance and guidance on how to run different businesses. For instance, my homestay was started with the help of government support, which allowed me to build a small homestay behind my house….."* ***(C4: Community)***

> *" …. MARA provided grants to about 20 to 30 business owners, with each receiving around five thousand ringgits. These business start-up grants were intended to help enhance their businesses, allowing them to purchase what they needed…."* ***(BP1: Tourism Business Operators)***

Additionally, tourism has facilitated the creation of seasonal side incomes for many community members. This supplementary income often comes from activities such as selling local products, offering guided tours, or renting out accommodations such as homestay-type tourism. Such opportunities not only contribute to individual

financial well-being but also strengthen the community's economic resilience. Diversification is a widely recognized resilience strategy in coastal and tourism-dependent economies. Allison & Ellis (2001) argue that households with diversified income streams are better positioned to withstand shocks like fluctuating fish stock or tourism downturns. Nguyen et al. (2020) found that in Southeast Asia, combining traditional livelihoods (e.g., fishing) with tourism activities enhances household well-being and strengthens community economic networks. By diversifying income sources and enhancing financial assets, tourism development policies support both immediate and long-term economic growth for local communities. While several informants highlighted the importance of financial aid in starting homestay businesses during difficult times like the COVID-19 pandemic, there is little mention of sustained or transformative business development that aligns with environmental or community-centered goals. Despite the short-term relief that initiative and support such as financial assistance, research indicates that small-scale tourism businesses often lack access to continued support, training, and guidance, particularly in areas related to sustainability and business diversification (Basit et al., 2024; Shi & Xiao, 2024). As a result, these initiatives risk promoting businesses that are more dependent on government aid than on developing resilient, independent business practices.

> *"…I think the bigger issue is how to keep the business running sustainably in the long term. There's not enough focus on teaching us the skills for long-term growth or adapting to changing tourism trends…."* ***(C9: Community)***

Overall, tourism development on Pangkor Island has boosted community financial assets, creating new income streams through hospitality services and local crafts. Government support, including grants and training, has empowered local entrepreneurs, especially during challenges like the COVID-19 pandemic. However, reliance on seasonal financial aid raises concerns about long-term economic resilience. While diversification of income sources, such as homestays and local tours, strengthens financial stability, there is a need for more sustainable business development and ongoing support to ensure long-term growth without depending on temporary support.

4.3.4.3 Physical Assets Development

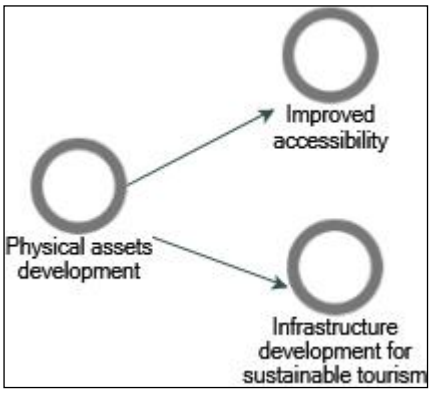


Figure 4.12 Physical Assets Development
Source: Researcher

Tourism development policies have significantly improved community physical assets, including infrastructure upgrades such as jetties, stalls, parking facilities, and public spaces. These enhancements improve both tourist convenience and local functionality. Informants noted the benefits of such upgrades in facilitating smoother transportation and supporting business operations. The development of new commercial spaces, such as stalls and shop lots, supports local businesses by providing them with better facilities to cater to the growing demand.

> *"…. The Pangkor 2030 Blueprint outlines various development plans for a specific period, addressing all aspects. These efforts aim to assist local business owners, such as by providing new stalls that enhance comfort for both vendors and visitors…"* ***(BP1: Tourism Business Operators)***

> *"…. The Manjung Municipal Council, as the local authority, is actively upgrading and improving infrastructure and facilities on Pangkor Island. This includes public toilets, prayer rooms, gazebos, swings, and tourism signboards creatively made from recycled materials by the MPM Landscape Unit. These improvements positively impact community assets and*

*contribute to the development of tourism, in particular…" **(LA2: Government)***

*"…. the new jetty and parking facilities have positively influenced tourism development, making it more convenient than before. Tourists are also pleased with the improvements, as there is now space for them to relax while waiting…" **(C5: Community)***

Despite these benefits, concerns were raised regarding the relocation of vendors to accommodate new infrastructure. While such plans aim to improve visitor experience, they may disrupt local businesses, contrasting with inclusive tourism frameworks that emphasize minimizing displacement (Ashley & Haysom, 2006). The literature suggests that inclusive strategies are critical to ensure tourism benefits reach marginalized groups. The Pangkor 2030 Blueprint emphasizes physical and infrastructural upgrades but appears less focused on aligning tourism growth with local livelihood sustainability. Multi-stakeholder collaboration is necessary to ensure infrastructure development benefits all parties equitably

*"…. I saw the municipal authorities come by, and they mentioned plans to relocate the vendors to a new area, which is a bit farther away. In my opinion, this could disrupt their business a little but at the same time will be an advantage to the visitor because it is nicer and convenient…." (**BP5: Tourism Business Operators)***

Even with these concerns, improved infrastructure enhances destination appeal, aligning with the argument that well-planned tourism infrastructure boosts perceived value and visitor satisfaction (Turčinović et al., 2025). Overall, tourism development on Pangkor Island has led to significant improvements in physical assets, such as upgraded jetties, stalls, parking areas, and public spaces. These changes have made transportation smoother and helped local businesses thrive with better facilities. The Pangkor 2030 Blueprint aims to further enhance infrastructure, benefiting both tourists and vendors (citation). However, concerns were raised about relocating vendors, which could disrupt businesses. While infrastructure improvements are generally positive,

ensuring that local livelihoods remain supported through inclusive planning is crucial for sustainable development.

4.3.4.4 Social Assets and Community Well-Being



Figure 4.13 Social Assets and Community Well-being
Source: Researcher

Tourism development policies play a crucial role in shaping social assets within communities by fostering collaboration among various stakeholders. Informants emphasized the significance of partnerships between policymakers and local groups, such as the Beach Boy Association, in enhancing tourism-related initiatives. These collaborations facilitate the sharing of resources, knowledge, and expertise, leading to more effective and inclusive tourism strategies. By engaging local organizations, policymakers can address community needs, promote sustainable practices, and ensure equitable distribution of tourism benefits. This approach aligns with the triple bottom line framework, which balances economic, social, and environmental goals (Saarinen, 2020; Sharpley, 2021). Furthermore, the active involvement of local associations in tourism development strengthens social cohesion and empowers community members. The participation of groups like the Beach Boy Association not only sustains local livelihoods but also enriches the overall visitor experience. These cooperative efforts integrate local perspectives into tourism planning, fostering a sense of ownership and collaboration among residents. As a result, social interactions are enhanced, and community bonds are reinforced, creating a more resilient and supportive environment for tourism growth and overall well-being. The following verbatim feedback from informants highlights the importance of these collaborative efforts:

"…. The impact of tourism development policies on community assets in Pangkor Island depends on the alignment of these policies with principles of sustainability, inclusivity, and local empowerment. Collaborative efforts between policymakers, local communities, and the private sector are essential to ensure that tourism development benefits the community well-being while minimizing negative social, cultural, and environmental impacts…." ***(A1: Academia)***

"…In terms of their participation (beach boy association) especially in beach activities, water sports, and similar efforts, they are also highly active in coral reef planting. Yes, we do communicate on the future on how to make some area to be more sustain. They volunteer to help, and we also have plans to support and assist with related activities such as beach cleanups and others tourism related activities…." ***(LA3: Government)***

However, findings reveal that while the community's involvement is acknowledged, institutional support for these efforts remains limited. Informants expressed a need for a more structured approach to participation, including access to resources and formal recognition within the tourism development framework. Integrating social assets into tourism development strategies will ensure that community contributions are sustainable, impactful, and aligned with broader goals of inclusivity and empowerment (Sapkota, 2024). Strengthening institutional backing will enhance community trust, cooperation, and shared responsibility, laying a solid foundation for long-term tourism success on Pangkor Island.

"…Our association has been actively participating in initiatives like coral reef planting and beach cleanups, but we feel these efforts need stronger institutional backing. It would be beneficial if policies directly addressed how local groups like ours can contribute more effectively, not just through voluntary work…" ***(C1: Community)***

Overall, tourism development on Pangkor Island has strengthened social assets by fostering collaboration between local communities, policymakers, and organizations like the Beach Boy Association. These partnerships help share knowledge, promote sustainability, and ensure that tourism benefits are distributed equitably. While local involvement has enhanced community well-being and social cohesion, there is a need for more structured institutional support to ensure these efforts are sustainable and impactful. Strengthening formal recognition and providing resources will empower local groups, creating a foundation for long-term, inclusive tourism development.

4.3.4.5 Human Assets and Capacity Building

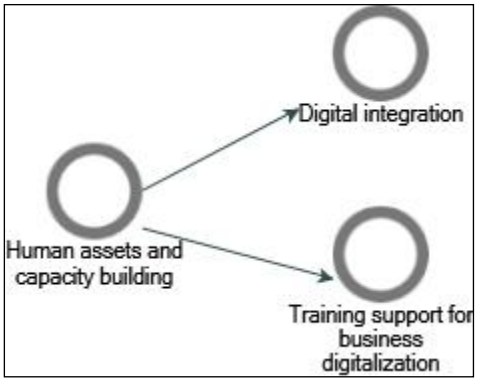


Figure 4.14 Human Assets and Capacity Building
Source: Researcher

Tourism development policies have significantly impacted human assets by enhancing training and skill development opportunities. Informants highlighted the role of government-led training programs in improving the capabilities of local residents. These initiatives aim to upskill various tourism stakeholders, from hospitality workers to entrepreneurs, ensuring more effective service delivery and a higher-quality visitor experience. Moreover, comprehensive training programs, particularly in digital proficiency, align with the Perak Sejahtera 2030 Agenda, which emphasizes the integration of the Fourth Industrial Revolution (IR 4.0). Under Rancangan Kemajuan Kerajaan (RKK), Pangkor Island has the potential to evolve into a tourism hub leveraging online digital systems and cashless transactions. The vision of transforming Pangkor Island into a Smart Island further supports the broader development goals of Perak. By prioritizing continuous learning and professional growth, these policies

enhance the competitiveness of local businesses and service providers, ultimately fostering long-term economic and social benefits. Following are some of the verbatim feedback from informants:

> *"…. Yes, the district council has provided some training, and it helps to develop and improve us to the new skills, but mainly in areas related to our business. I do have hopes for greater digital integration here, like using QR codes. It would make things easier for renting or checking in, for instance. Additionally, having something like a QR code that directly links to a website explaining "What is Pangkor" would be helpful. It would make it easier for tourists to access information about what attractions and activities are available when visiting the island…."* ***(BP4: Tourism Business Operators)***

> *"……. our plan for next year is to conduct training sessions every three months for industry players to enhance their skills, particularly in areas like digital proficiency and professional development. For instance, some of them are still not familiar with the digitalization process, such as creating promotional materials like pamphlets or posters. There are still those who don't know how to do this. For example, duty-free shops may need this support. As we move towards becoming a smart island, this provides an opportunity for industry players to develop basic digital skills…."* ***(LA3: Government)***

However, despite these efforts, digital adoption remains uneven due to resource constraints and varying levels of digital literacy. This gap can limit market reach and innovation opportunities for local tourism operators. Research by Gretzel et al. (2015) highlights the importance of targeted capacity-building initiatives to address these challenges. Informant shared the following insights:

> *"…. However, our knowledge in this area is somewhat limited. This is something we really want – to improve our understanding of digital technology especially to promote our*

tourism product. I think the younger generation would also be eager to learn…" ***(BP4: Tourism Business Operators)***

Overall, tourism development policies on Pangkor Island have significantly enhanced human assets by providing training and skill development opportunities, particularly in areas like digital proficiency. Government-led programs have helped improve local capabilities, ensuring better service delivery and a higher-quality visitor experience. The shift towards digital integration, aligned with the Perak Sejahtera 2030 Agenda and the Smart Island vision, is seen as key to fostering competitiveness. However, uneven digital adoption due to resource constraints and varying levels of digital literacy remains a challenge, limiting growth and innovation.

4.3.4.6 Technology Assets Development

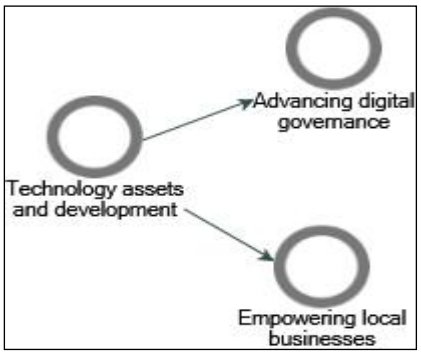


Figure 4.15 Technology Assets Development
Source: Researcher

Technological advancements have significantly transformed tourism development policies, modernizing various aspects of the local tourism industry. The integration of digital tools has streamlined operations and improved service delivery, enhancing the overall visitor experience. Informants highlighted the adoption of QR codes, which facilitate seamless transactions and provide tourists with easy access to essential information. However, digital adoption remains hindered by infrastructure limitations and disparities in digital literacy (Adel, 2024). The implementation of cashless payment systems in duty-free shops has revolutionized transactions, making them more secure and efficient for both tourists and local businesses. These technological enhancements align with global trends in digital commerce and the Perak

Sejahtera 2030 Agenda, reinforcing the island's development towards an integrated, smart, and sustainable tourism model (PlanMalaysia, 2023). The adoption of digital solutions ensures that Pangkor Island remains competitive within the evolving tourism landscape. Informants provided the following perspectives:

> *"……Further efforts by the Manjung Municipal Council have led to the introduction of a well-known system in the Manjung district, called MyPatil, launched in 2021. Additionally, MyBiz and MyManjung, online applications under the Licensing and Enforcement Department of MPM, serve as facilitation mediums. As modernization progresses, digitalization on Pangkor Island has become more pronounced. Enforcement officers no longer need to conduct door-to-door inspections of business premises…." (**LA1: Government)***

> *"…. In line with the Perak Sejahtera 2030 Agenda, which aims to drive the Fourth Industrial Revolution (IR 4.0), Pangkor Island's development aligns with the digitalization policies outlined by the Manjung Municipal Council. This includes the implementation of digital solutions in several sectors, such as business, with the introduction of QR codes as a payment medium in duty-free shops and among small traders and vendors. (**LA2: Government)***

Overall, technological advancements have significantly transformed tourism development on Pangkor Island, streamlining operations and improving service delivery. The adoption of digital tools, such as QR codes and cashless payment systems, has enhanced the visitor experience and facilitated seamless transactions. These innovations align with the Perak Sejahtera 2030 Agenda, which aims to modernize the island's tourism industry. However, challenges such as infrastructure limitations and varying levels of digital literacy still hinder full digital adoption. Continued investment in technology and training is essential for long-term competitiveness and sustainability.

4.3.4.7 Section Summary

Tourism development policies on Pangkor Island have significantly influenced community livelihood assets, particularly natural, financial, physical, social, human, and technological resources. While infrastructure developments such as bridges and coastal restoration have improved accessibility and tourism appeal, concerns remain about environmental degradation. Financially, tourism has diversified income streams, supported by government aid and training programs. However, overreliance on seasonal aid raised concerns about long-term resilience and sustainable entrepreneurship (Dharmasiri et al., 2025)

Physical infrastructure improvements, including jetties, stalls, and signage, have enhanced tourist experiences, yet some relocations have disrupted local vendors, highlighting the need for more inclusive planning. The social assets by fostering collaboration among stakeholders, particularly through partnerships with local associations like the Beach Boy Association. These collaborations enhance sustainability efforts, community participation, and inclusive tourism planning, promoting social cohesion and empowering local voices.

However, despite active engagement, participant highlighted the need for stronger institutional support, structured participation frameworks, and resource access to ensure long-term impact. Recognizing and integrating social assets into tourism strategies not only improves community well-being but also enriches visitor experiences. Sustainable, community-driven policies are vital for inclusive, resilient tourism development on the island. Technological upgrades such as QR codes and cashless systems have improved service delivery, but adoption challenges persist due to infrastructure and literacy limitations.

Overall, tourism development has brought notable benefits to Pangkor Island's communities. However, to ensure long-term sustainability, policies must emphasize inclusive participation, ecological stewardship, and continued investment in capacity building and digital transformation.

4.3.5 Notable Challenges and Opportunities for Tourism Community as a Result of the Policies (RQ 1.5)

From the information gathered, two main themes emerged about challenges within the local community on the island: (i) Environmental effect (ii) Economic dependency and three opportunities emerged about the opportunities (i) Marketing and promotion (ii) Economic support and incentives (iii) Diversification of tourism. Each of these themes underscores the complex interplay between tourism development and its effects on the local community, highlighting the need for comprehensive strategies to address and mitigate these challenges even opportunities.

Figure 4.16 below presents the project map and comprehensive elucidation.

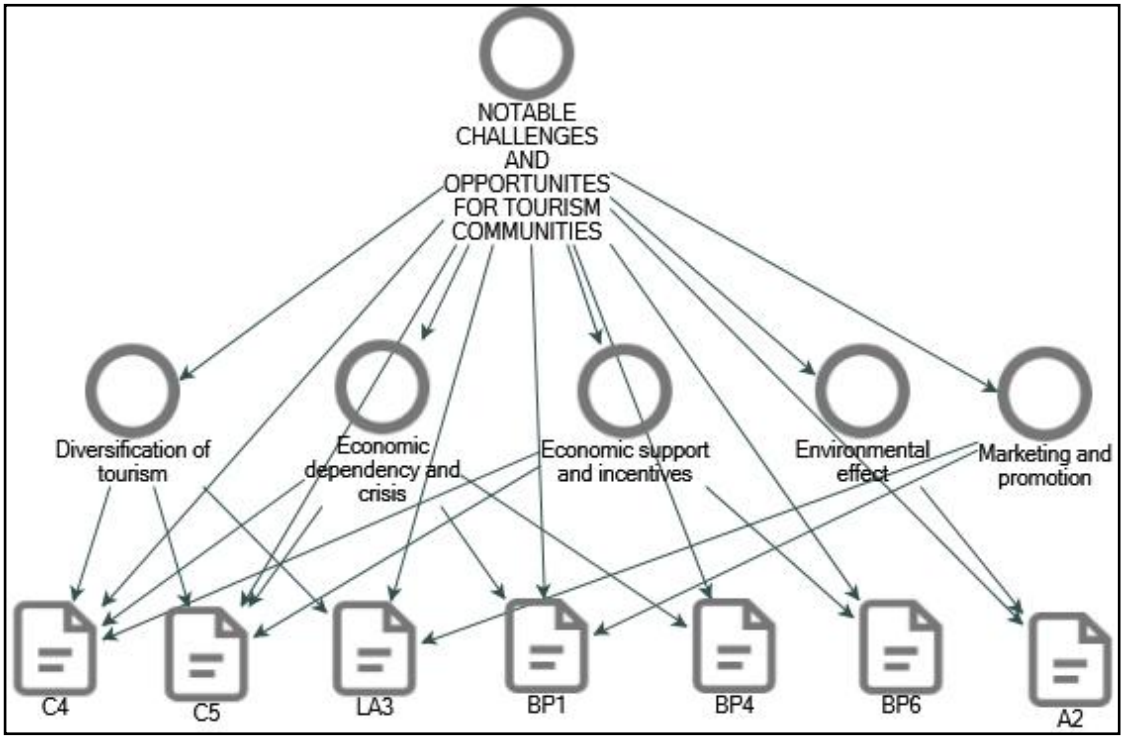


Figure 4.16 Project Map of the Challenges & Opportunities for Tourism Community in Pangkor Island
Source: Researcher

4.3.5.1 Environmental Effect

The theme of environmental effect reveals several notable challenges related from tourism and development activities on Pangkor Island's local ecosystem.

Informants highlighted key environmental issues, including significant pollution, coral reef degradation, and overcrowding. These challenges highlight the detrimental effects of increased tourist activity on the island's natural resources. Pollution from waste and improper disposal practices contributes to environmental deterioration, while damage to coral reefs adversely affects marine biodiversity and coastal ecosystem health. Tourism-induced environmental degradation is a widely recognized issue in island destinations. Studies by Buckley (2020) and Hall (2019) highlight that unchecked mass tourism often results in pollution, habitat destruction, and biodiversity loss. Similarly, Huddart (2019) highlight that snorkeling and diving activities, particularly physical contact with corals and improper anchoring, can severely impact coral health. Even though the increased demand for water activities represents an opportunity for livelihood diversification but necessitates measures to ensure these activities do not compromise ecological assets, as highlighted in Blue Economy frameworks (Silver et al., 2015).

Despite these challenges, opportunities exist for environmental restoration and sustainable management. Coral planting and restoration initiatives represent community-driven efforts to mitigate damage and enhance marine biodiversity. These initiatives not only help preserve the island's natural beauty but also contribute to the long-term sustainability of tourism. However, coral restoration is a slow process, reflecting the concept of ecological resilience (Rinkevich, 2019), where recovery from environmental disturbances requires significant time and resources.

> *"…. the island itself facing few challenges such as pollution and overcrowded. It results a limitation to the development of the island itself and the impact significantly contributes to the damage to nature if there is no control on it. Besides, government policies to make Pangkor as a premier tourism destination might lose the natural charm of the island. Pangkor has its own niche. The government should preserve the ecological uniqueness of the island and promote "ecotourism" instead of "mass tourism…"* ***(A2: Academia)***

….” After COVID, I noticed many changes and challenges for water activity businesses like ours. The challenge, however, lies in the damage to coral caused by snorkelling activities. While Teluk Nipah has fewer corals, you can see more around Pangkor Island and Pulau Sembilan. But we don't conduct many water activities in those areas…” ***(BP4: Tourism Business Operators)***

*“…. For our current snorkelling spot, we’d like to restore the corals by replanting them and bringing them back to life. However, coral restoration takes a long time. It can sometimes take a year for them to grow just 10 inches – it’s a very slow process…” (**C1: Community)***

Overall, tourism on Pangkor Island has led to significant environmental challenges, including pollution, coral reef degradation, and overcrowding. Increased tourist activity has strained the island's natural resources, with waste disposal and water activities, such as snorkeling, causing damage to marine biodiversity and coastal ecosystems. While these issues threaten the island’s ecological health, there are efforts to restore the environment, such as coral planting initiatives. However, these restoration projects are slow, highlighting the need for careful management and sustainable practices to preserve Pangkor’s natural beauty and long-term tourism viability.

4.3.5.2 Economic Dependency

The theme of economic dependency highlights the island's heavy reliance on tourism for economic stability. Informants reported that businesses face significant downturns during weekdays and off-peak seasons, leading to reduced economic activity and financial instability. This irregularity reflects a dependency on peak tourism periods, with many local enterprises facing slower business operations outside of these peak times. The seasonal nature of tourism further exacerbates this issue, creating financial uncertainty for businesses that struggle to maintain profitability throughout the year. Informants reported that the escalating prices of raw materials and food packages have placed a substantial financial burden on businesses. These increased

costs not only strain operational budgets but also lead to higher prices for consumers, which can reduce spending and negatively affect local income levels. The financial strain is further compounded by the decreased purchasing power of residents and visitors, impacting overall economic stability.

> *"…. I noticed many changes and challenges for small businesses like ours. For example, selling souvenir are seasonal, so it's just enough to meet the basic needs.so we need to find other alternative way to improve our income which quite challenging as well…"* ***(BP4: Tourism Business Operators)***

> *"…. It became very clear after COVID that we had to find alternative ways of making a living and not rely on just one job. We can no longer depend on a single source of income. In the past, I only sold souvenirs, but now I've had to diversify by selling snacks and helping my husband at the stall as well…."* ***(C5: Community)***

> *"…. Another issue is the cost of raw materials. For example, even though Pangkor is a major fish producer, with many local fishermen, the demand from hotels and other places, including exports to Singapore, drives up the prices. So, one of the biggest challenges in the tourism sector right now is the rising cost of raw materials…."* ***(BP1: Tourism Business Operators)***

This economic dependency presents both challenges and opportunities. On one hand, the variability in business activity can lead to financial difficulties and hinder long-term economic growth. On the other hand, it offers an opportunity to diversify the local economy by exploring alternative revenue streams and developing strategies to attract visitors during off-peak times. Implementing initiatives to boost weekday and off-season tourism, along with supporting the growth of other industries, can help reduce reliance on tourism and create a more resilient and stable economic environment for the community.

> *"…. Many families are running homestays, small hotels, or*

renting out chalets to tourists that can support their economy. Food and beverages also help to support during off season…."
(C4: Community)

Overall, the theme of economic dependency on Pangkor Island highlight the challenges faced by local businesses, which heavily rely on tourism for economic stability. Off-peak seasons and weekdays cause downturns in business activity, leading to financial instability. Increased costs of raw materials and food also strain operations, making it difficult for businesses to maintain profitability. Despite these challenges, opportunities exist for diversifying income sources, such as promoting off-season tourism and exploring alternative revenue streams. These strategies could help reduce dependency on tourism and enhance the island's economic resilience. On top of that, three main themes emerged about the opportunities: i) Marketing and promotion ii) Economic support and incentives iii) Diversification of income.

4.3.5.3 Marketing and Promotion

Marketing and promotion represent significant opportunities for addressing community challenges and enhancing economic outcomes. From the findings, informants highlighted the positive impact of targeted marketing campaigns, such as those associated with which aim to boost tourist arrivals and generate increased income for local businesses. The duty-free initiative by the government is part of the promotion to boost tourism industry in the island itself. Research highlights that small islands require targeted strategies that balance economic growth with ecological and social sustainability (Scheyvens & Momsen, 2008). The government's emphasis on a unique tax exemption and structural development aligns with such tailored approaches.

Additionally, the promotion of specific attractions like Pulau Giam, which has seen a surge in demand due to its growing popularity among tourists, underscores the potential for effective marketing to drive economic benefits. By leveraging strategic marketing initiatives and promotional events, the community can attract more visitors, enhance local revenue, and foster sustainable tourism growth. On top of that, as part of the initiative, LA3 Government highlighted the support has been given to tour operator to promote their package digitally. This initiative assisting the tour operator to boost

their marketing and at the same time promote the destination. Following are some of the verbatim feedback from informants:

> *"…. Everything is covered in the plan, and our team from has been working tirelessly to prepare the tourism promotion program schedule for the coming years. For example, in Pangkor, the difference is that the island is smaller, and the tax exemption here is not the same as in other places. While others require a 48-hour stay, we only require 24 hours. That's what sets us apart. Continuous planning is being carried out for the development of Pangkor Island, with initiatives from the state government. Furthermore, next year is Visit Perak Year 2024, and these are the efforts being made to further enhance the promotion and tourism development of this island (**LA3: Government)***

> *"…. The impact of the duty-free island status has been significant, particularly in terms of the increase in tourists, and the local council is promoting the island in this way. However, some suggest that we may need to explore other methods to add value. For example, we should revisit and refine certain areas that need improvement, particularly in preparation for the challenges of next year, which is Visit Perak Year 2024…."* ***(BP1: Tourism Business Operators)***

Overall, the findings highlight the importance of marketing, promotion, and economic support in enhancing Pangkor Island's tourism and local economy. Targeted campaigns, like "Tahun Melawat Perak 2024," and government incentives such as subsidies for homestays and skills training, provide significant opportunities for local growth. These initiatives help improve local businesses, diversify income sources, and promote sustainable tourism while strengthening community resilience.

4.3.5.4 Economic Support and Incentives

Economic support and incentives offer crucial opportunities for local communities to overcome challenges and stimulate growth (Huang & Liu, 2024). Informants highlighted the role of government subsidies in providing essential capital for establishing new businesses, such as homestays. These financial incentives are designed to reduce the barriers to entry for entrepreneurs and support the expansion of local tourism infrastructure. By easing the financial burden associated with starting and running a homestay, these subsidies encourage investment and enhance the community's ability to cater to a growing number of visitors. In addition to subsidies for homestay development, other forms of economic support include skills training programs, such as those for traditional 'kueh' making or even pastry. These training opportunities equip residents with valuable skills, enabling them to diversify their income sources and improve their competitive edge in the local market. By fostering entrepreneurial spirit and supporting skill development, economic incentives help build a more resilient and dynamic local economy, creating long-term benefits for both individuals and the community as a whole. Following are some of the verbatim feedback from informants:

> *"…when we received financial assistance and support to open a homestay business, it helped improve our financial situation to some extent…"* ***(BP6: Tourism Business Operators)***

> *"…the capital to open the homestay has been sufficient. Government provided us the assistance such as training and workshop to assist is on this new business. After that, we need to maintain by our own…."* ***(C4: Community)***

> *"…The government offered various training programs, including skills in making pastries and traditional 'kueh-mueh,' as well as sales techniques, to help residents improve their business capabilities and attract more customer…."* ***(C5: Community)***

Overall, the findings highlight the importance of marketing, promotion, and economic support in enhancing Pangkor Island's tourism and local economy. Targeted campaigns, like "Tahun Melawat Perak 2024," and government incentives such as subsidies for homestays and skills training, provide significant opportunities for local growth. These initiatives help improve local businesses, diversify income sources, and promote sustainable tourism while strengthening community resilience.

4.3.5.5 Diversification of Income

Diversification of income represents a significant opportunity for communities to enhance their economic resilience and appeal to a broader range of visitors especially after the island has gazetted as free-duty island. Informants noted various initiatives aimed at expanding tourism offerings, such as the development of edu-tourism programs, which combine education with travel experiences to attract educational groups and learners. Additionally, establishing eco-tourism hubs highlights the community's commitment to sustainable practices and environmental conservation, appealing to eco-conscious travelers seeking authentic and responsible experiences.

Further diversification includes the promotion of homestays, which offer visitors a unique, immersive experience while providing locals with additional income sources. The expansion of duty-free businesses also caters to tourists looking for tax-free shopping options, adding another layer to the tourism experience. By embracing these diverse tourism ventures, the community can attract a wider audience, reduce dependence on single tourism segments, help to sustain overall financial health and create a more robust and adaptable tourism industry that contributes to long-term economic growth and stability. Following are some of the verbatim feedback from informants:

> *"…. After being recognized as a duty-free island, water activities have thrived as more people visit and try things like snorkeling, jet skiing, and banana boating, among other new activities, but since becoming a duty-free island, new businesses like ATV sports have emerged. Now, we have recreational options in the forest, along the coast, and more. There's also*

*been growth in handicrafts, as tourists are drawn to them. For example, we now offer pufferfish handicrafts, which have become popular. So, in terms of handicrafts, water sports, adventure activities, and even marathons, there's a lot happening. The island has also become an educational hub, attracting researchers and students to study on Pangkor. In addition to ecotourism, it has become a destination for edutourism, with many scholars and students coming here for research. Moreover, there's history-based tourism, with sites like the Dutch Fort and the Batu Bersurat). All of this has created numerous opportunities for locals to expand their income…." **(LA3: Government)***

Overall, the diversification of income on Pangkor Island has become a vital strategy for enhancing economic resilience and broadening the tourism market. The development of edu-tourism, eco-tourism hubs, and homestays, along with the growth of duty-free businesses, has expanded tourism offerings and attracted a wider range of visitors. These initiatives help reduce reliance on seasonal tourism, create new revenue streams, and promote long-term economic stability for the community. Local businesses now benefit from a more diverse and sustainable tourism model, which enhances both economic and environmental sustainability.

4.3.5.6 Section Summary

In the nutshell, the rising cost of living has driven many locals to take on multiple employments, with a significant portion involved in various tourism-related jobs to make ends meet. This economic pressure has resulted in a fragmented workforce, where individuals juggle several roles to support their families. This situation highlights a broader challenge: the increasing reliance on foreign labor to fill gaps left by a diminishing local workforce. Many young people have migrated to other states or countries in search of better job opportunities, leading to a shortage of skilled labor in crucial sectors such as fisheries and tourism. This migration trend not only depletes the

local talent pool but also hampers the community's ability to effectively manage and sustain its natural and economic resources.

Consequently, the local sectors, particularly fisheries and tourism, are increasingly dominated by foreign workers from Myanmar and Thailand. While this influx of foreign labor helps address immediate staffing needs, it also poses challenges in terms of maintaining local expertise and ensuring the sustainable management of resources. The reliance on external labor forces underscores the urgent need for strategies to enhance local skill development, retain talent, and ensure that the benefits of tourism and other key industries are equitably shared within the community. Balancing the demand for labor with the preservation of local skills and resources remains a critical issue for achieving long-term sustainability and growth. Therefore, to conclude the findings the overall themes and research model embodied in these research questions are as follows:

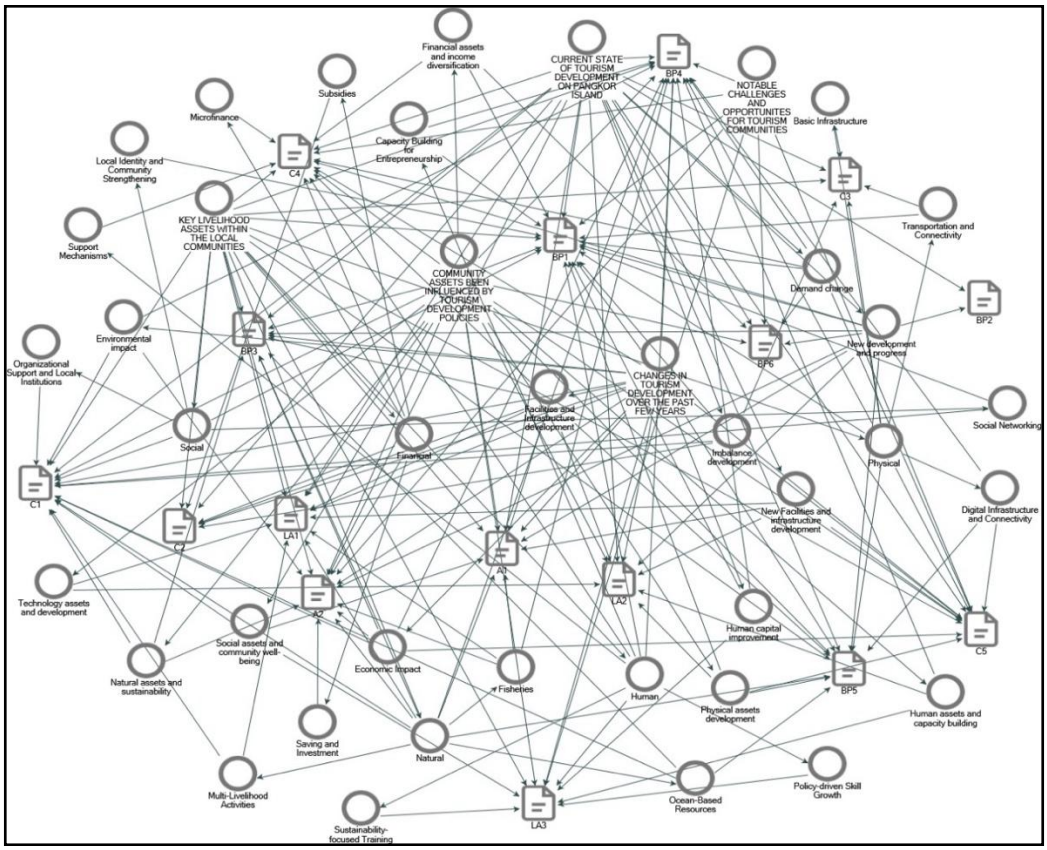


Figure 4.17 Overall Themes and Interconnected Codes for Research Questions One
Source: Researcher

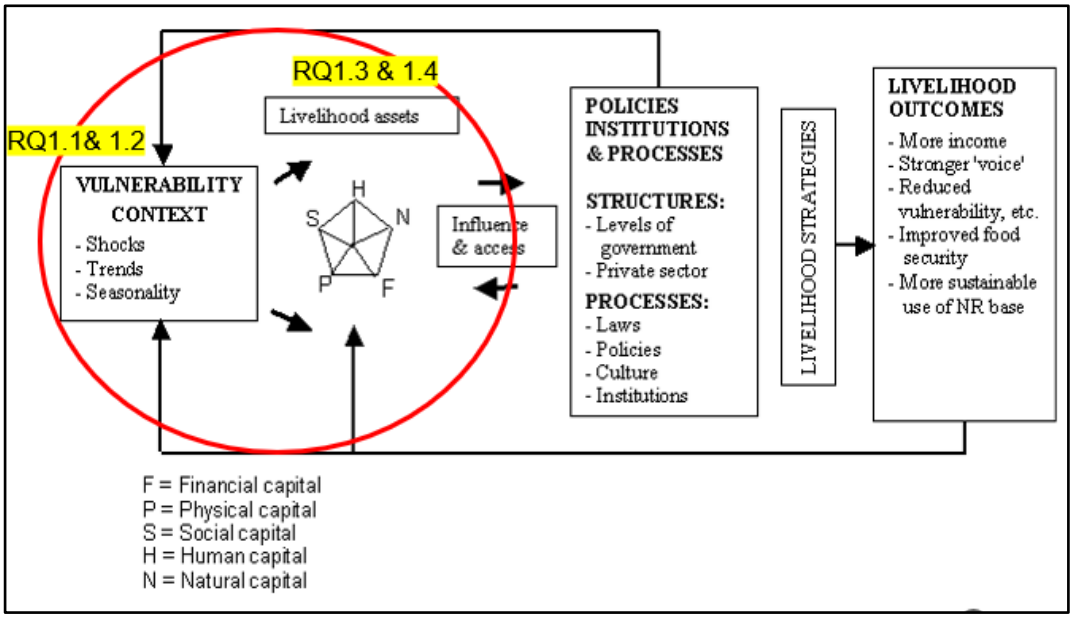


Figure 4.18 Research Model For Stakeholders' Perceptions of How the Current Tourism Development Policy on Pangkor Island Affect the Island's Community Livelihood Assets
Source: Researcher

4.4 Stakeholders' Perceptions of the Potential Changes in Developmental Policies in Support of the Pangkor Island Community's Livelihood Strategies and Their Livelihood Outcomes (RQ2)

Tourism has influenced and shaped livelihood diversification strategies in destination communities (Ashley, 2000b; Cohen & Cohen, 2012; Tao & Wall, 2009) and a livelihood strategy transforms their socio-economic status and food accessibility in the household levels (Aazami et al., 2020; Kunjuraman, 2022). For Pangkor Island community their livelihood strategies are diverse and adaptive, reflecting both traditional and modern influences. Due to duty-free status, the community engaged in small scale-entrepreneurship, with a significant focus on tourism-related activities such as souvenir shops, selling duty free items, and operating homestay. In addition to tourism, some locals maintain traditional livelihoods such as commercial fishing where it provides employment and significant export revenue for island communities. Blue eye anchovies are the best production from the island and estimated 90% of the output come from the island. However, destructive fishing practices and overfishing of inshore area was causing environment degradation and instability in the marine life ecosystem especially to the coral reef and small fish. Even though Lembaga Kemajuan Ikan

Malaysia (LKIM) buffer some of the inshore area, but some of the other time, the fishermen ignore it. But members of the village such as beach boy had taken on the fisheries management role, protecting conservation area, and exercising their authority to report immediately to the authority who did not comply with rules set up by LKIM. Self-employment in micro-enterprise and small business provides livelihoods for some islander. Making and selling crafts such as dry puffer fish, dry fish, and seafood (blue eyes anchovies is among the popular one) is a common from micro-enterprise among the local. The following are the three interview questions:

Interview Question 2.1:
How would you describe the current livelihood strategies within the Pangkor Island community?

Interview Question 2.2:
Are there specific strategies in place to ensure sustainable community livelihood assets?

Interview Question 2.3:
To what extent do you believe the community should be involved in shaping developmental policies that affect their livelihoods?

4.4.1 Current Livelihood Strategies Within the Pangkor Island Community (RQ2.1)

Livelihood strategies are likely to focus on activities that generate income, especially in the wake of the economic pressures exacerbated by the Covid-19 pandemic. The occupation pattern observed reveals that many informants are engaged in multiple livelihood activities to meet their financial needs, reflecting a shift towards more diversified income sources due to the heightened economic uncertainty. This trend is particularly evident in Pangkor Island, where two main themes have emerged regarding current livelihood strategies: **(i) Tourism sector** and **(ii) Fishing sector**. The tourism sector, including activities such as managing homestays and running duty-free shops, has become a crucial income source for many, driven by the island's growing

appeal to tourists. Simultaneously, fishing remains a traditional and vital livelihood, though it faces challenges from reduced local participation and increased competition from foreign workers. This dual focus on tourism and fishing illustrates the community's adaptation to economic pressures while highlighting the need for sustainable practices and support systems to bolster these key sectors.

Figure 4.19 below presents the project map and comprehensive elucidation.

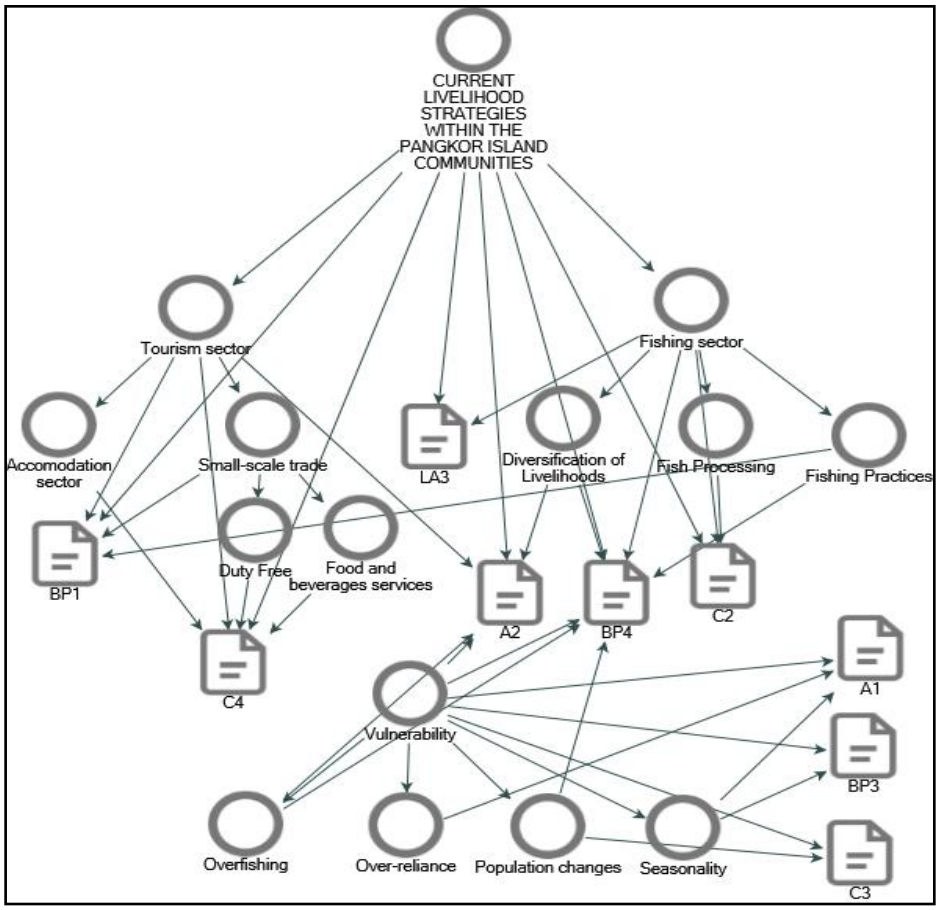


Figure 4.19 Project Map of the Current Livelihood Strategies Within the Pangkor Island Community
Source: Researcher

4.4.1.1 Tourism Sector

The tourism sector plays a pivotal role in shaping livelihood strategies, particularly in coastal and island communities (Hahury et al., 2023). On Pangkor Island, tourism is integral to the local economy, with the majority of informants highlighting the dynamic interplay between traditional livelihoods and tourism-driven activities.

Many locals engage in small-scale enterprises, especially within the food and beverage sector, catering to the needs of tourists. This observation aligns with existing literature that identifies tourism as a key driver of economic growth in such communities (Hampton & Jeyacheya, 2020). A recurring theme among informants is economic diversification, reflecting the community's adaptive strategies to mitigate economic vulnerabilities. This aligns with academic perspectives and community accounts emphasizing multi-livelihood strategies to enhance resilience (Ashley et al., 2000). Informants reported managing local eateries, food stalls, and beverage stands, contributing significantly to household incomes.

Notably, some fishermen have diversified into tourism-related ventures, such as accommodation businesses, illustrating a shift from traditional livelihoods to tourism-based activities. The entrepreneurial efforts of Chinese fishermen, in particular, highlight ethnic-specific trends in livelihood diversification, consistent with broader coastal patterns (Ghani et al., 2022). Informants BP1 (Tourism Business Operator) and C4 (Community Member) highlighted the prevalence of small-scale entrepreneurship within the tourism sector, including niche markets like duty-free goods. This supports findings from coastal livelihood studies, which emphasize the necessity of diversifying income sources, particularly in regions where environmental pressures and overfishing threaten traditional industries (Chambers & Conway, 1992; Fabinyi et al., 2022; Sapehee et al., 2025). On top of that, the stakeholder's perspective also emphasizes individual entrepreneurial efforts to accommodate the demand, and diversification is critical for managing economic uncertainty as well as support sustainable and inclusive development (Ellis, 2000; Bakar & Wall, 2019; Baum & Hai, 2020; Cheer et.al,, 2021; Hampton & Jeyacheya, 2020; Sheyvens & Bidduplh, 2018). Following are some of the verbatim feedback from informants:

> *"…. Most of the residents here run their own businesses. As for me, I sell duty-free chocolates and focus solely on that. This contributes to my main income. Some people run businesses while also working as fishermen. There is a lot of diversity here in how people make a living…."* ***(BP1: Tourism Business Operators)***

> *"…. Tourism has grown a lot especially after. Many families are running homestays and what stands out to me the most are the duty-free shops, food and beverages…."* ***(C4: Community)***

Despite the entrepreneurial vibrancy, there is a need for enhanced business development support. Training in marketing, financial management, and customer service could bolster local capacities and promote sustainable growth in tourism-related industries. Providing grants for eco-friendly business practices may encourage investment in sustainable tourism (Ismail & Daud, 2021). Furthermore, diversifying tourism offerings and improving marketing strategies can mitigate seasonal fluctuations, ensuring a stable economic foundation (Koki, 2017; Kunjuraman, 2020; Lasso & Dahles, 2018). However, the seasonal nature of tourism presents challenges. Income stability fluctuates with tourist demand, leading to financial uncertainty during off-peak periods (Corluka, 2019; Yabanci, 2023). Strategies to promote year-round tourism, such as niche tourism development, are essential to support small-scale operators.

> *"…Life is currently manageable however, it is seasonal. The opportunities are limited because Pangkor is small, and many will do more than one job for a living…"* ***(BP3: Tourism Business Operators)***

> *"…. Some general factors that may impact the livelihood strategies of the Pangkor Island community include an over-reliance on tourism as the primary income source, and the seasonality of tourism activities, which can lead to income instability and limited alternative opportunities during off-peak periods…"* ***(A1: Academia)***

Overall, the tourism sector significantly shapes livelihood strategies on Pangkor Island, fostering economic diversification through small-scale entrepreneurship, particularly in food, beverages, and duty-free retail. Locals, including fishermen, have ventured into tourism-related businesses, enhancing income sources. Despite this vibrancy, challenges such as over-reliance on tourism and seasonal fluctuations persist. Strengthening business support, promoting year-round tourism, and encouraging

sustainable practices are crucial to ensuring long-term resilience and inclusive economic growth.

4.4.1.2 Fishing sector

The fishing sector remains a cornerstone of Pangkor Island's livelihood strategies, coexisting with tourism-related activities. Informants, including tourism business operators and government representatives, emphasized the enduring importance of fishing and seafood, reflecting multi-livelihood strategies common in small island economies (Hampton & Jeyacheya, 2020). This interconnectedness of traditional and modern livelihoods illustrates a hybrid economic model where fishing sustains cultural identity while tourism offers economic diversification. Diversification into tourism and small businesses enhances community resilience, particularly in response to challenges such as the COVID-19 pandemic (Khater & Faik., 2024; Porter et al., 2015; Su et al., 2016; Tao &Wall, 2009) whereby introduce new livelihood source or diversification it will generate new income and overcome the challenge as well as community well-being (Gössling & Reinhold, 2024; Liu et al., 2024).

During the pandemic, informants noted that the downtime allowed for boat repairs and skill development, showcasing adaptive resilience (Berkes & Ross, 2013; Doan et al., 2022; Macusi et al., 2024). This sector is characterized by a combination of subsistence and commercial fishing activities, where local fishermen engage in both small-scale, daily fishing to support their families and larger-scale commercial operations aimed at broader markets. These actions not only ensured immediate survival but also strengthened long-term capacities for livelihood sustainability. Following are some of the verbatim feedback from informants:

> *"…. The Pangkor Island community continues to engage in their primary livelihoods, particularly fishing and fisheries, which remain central to their cultural identity and economic survival despite growing tourism influences…." (**LA3: Government)***
>
> *"…. Most of us still work as fishermen like my husband, but with*

declining catches, we now process or sell fish products like dried seafood to earn extra…." ***(C2: Community)***

"……. Fishing and seafood are a big part of life here. But we're also involved in tourism, especially water activities, as well as running businesses and more. During COVID, things came to a standstill; business was down, but we took the opportunity to repair our boats and attend some courses. Now things are better, so we're focusing on these activities again…." ***(BP4: Tourism Business Operators)***

Despite these adaptive strategies, the fishing sector faces sustainability challenges. The rise of large-scale commercial operations and reliance on foreign labor have disrupted traditional practices. Overfishing by industrial trawlers depletes resources, undermining small-scale fishers' economic resilience (Han & Chen, 2024). This is supported by the informant's feedback:

*"…. The widespread use of trawlers and absence of catch limits have led to the depletion of fish stocks, severely impacting the livelihoods of small-scale fishermen reliant on marine resources….." (**A2: Academia)***

"…. Fishing is more dominant than other industries, and if you look around, you'll see fishing boats docking and sailing out daily to catch fish. However, the challenge lies in regulating the catch, especially from the larger boats…" ***(BP4: Tourism Business Operators)***

Furthermore, younger generations migration from the island to the mainland due to uncertain income, and the lure of more stable jobs resulting in local shortages as well as contributing to youth depopulation on the island. This shift raises important concerns about such as fishing. To address this issue, the fishing sector increasingly relies of foreign labours from neighbouring countries such as Vietnam and Thailand however, the reliance on foreign labour sometimes changes the dynamics of fishing communities

where it may weaken traditional fishing knowledge and practices that are passed down through generations, as migrants' workers often focus purely on productivity. Local fishers may feel further displaced as external competition grows, and fewer local youth enter the sector. The declining presence of locals in fishing affecting the sector's cultural and economic ties to the island's heritage (Martino et al. 2023). Following are some of the verbatim feedback from informants:

> *"…. Many Pangkorian youths now migrated to mainland, and do not see any job opportunities for them. They are afraid to stay back as the island has not much entertainment for them…"* ***(C3: Community)***

> *"…In the past, 90% of the fishermen were local Malays. However, now if you look around, you can say that nearly all those fishing for anchovies using nets (One-boat purse seine) are foreigners…"* ***(BP1: Tourism Business Operators)***

Overall, Pangkor Island's livelihood strategies are characterized by a blend of traditional practices and modern adaptations. The interplay between fishing and tourism, alongside challenges related to sustainability, regulatory compliance, and economic diversification, shapes the community's resilience. Addressing these issues through targeted policies and community engagement is vital for sustainable development on the island.

4.4.1.3 Section Summary

This section explains hoe livelihood strategies on Pangkor Island reflect a dynamic blend of traditional and modern economic activities, with tourism and fishing emerging as key pillars. The tourism sector plays a crucial role in income diversification, especially for small-scale entrepreneurs involved in food, beverage, homestays, and duty-free retail. Many locals, including former fishermen, have shifted toward tourism-based enterprises, demonstrating adaptive strategies to reduce economic vulnerability. The involvement of Chinese fishermen in accommodation businesses, highlight the community's entrepreneurial responsiveness. However,

seasonal tourism presents income instability, prompting calls for enhanced training, sustainable business practices, and the development of year-round tourism offerings to support long-term economic growth.

Simultaneously, fishing remains a culturally and economically significant livelihood, with small-scale fishing and seafood-related businesses sustaining many households. The COVID-19 pandemic highlights the sector's resilience, as community members used the downtime for repairs and skill-building. Yet, challenges such as overfishing, industrial trawling, and increasing reliance on foreign labor threaten its sustainability. Informants raised concerns about resource depletion, regulatory gaps, and the declining involvement of local youth, many of whom migrate to the mainland in search of better opportunities. However, sustainability risks, regulatory challenges, and demographic shifts require targeted interventions. Strengthening institutional support, promoting youth engagement, and integrating traditional knowledge with modern practices are essential for preserving the island's cultural identity while ensuring inclusive and sustainable economic development (W.Ariffin et al., 2023)

4.4.2 Specific Strategies in Place to Ensure Sustainable Community Livelihood Assets (RQ 2.2)

The theme of specific strategies encompasses four critical subthemes: **(i) Sustainable Development (ii) Human Capital Development (iii) Digital Promotion,** and **(iv) Infrastructure Development.** These subthemes reflect targeted approaches to enhancing community resilience and growth. Sustainable Development focuses on implementing practices that ensure long-term environmental and economic health. Human Capital Development emphasizes improving skills and training for the local workforce. Digital Promotion leverages technology to enhance visibility and engagement with potential visitors. Infrastructure Development addresses the need for modern facilities and services to support tourism and local businesses. Together, these strategies form a comprehensive framework for advancing the community's overall development and addressing current challenges.

Figure 4.20 below presents the project map and comprehensive elucidation.

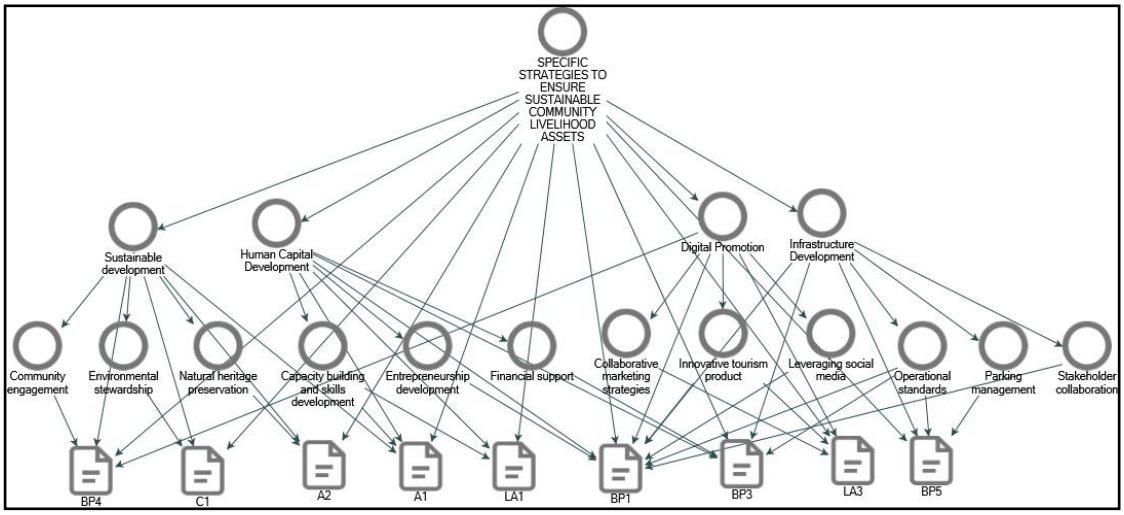


Figure 4.20 Project Map of the Specific Strategies in Place to Ensure Sustainable Community Livelihood Assets
Source: Researcher

4.4.2.1 Sustainable Development

Sustainable development is a fundamental strategy for ensuring the longevity and resilience of community livelihood assets. Insights from informants highlight that sustainable development is essential for balancing economic growth with environmental conservation and social well-being. These strategies involve the implementation of responsible resource management practices that minimize ecological harm while simultaneously supporting economic activities. By integrating sustainability into local development plans and fostering collaboration among stakeholders, the community can achieve economic progress without compromising the integrity of its natural environment. This aligns with the findings of Wu and Zhai (2023), which emphasize the importance of multi-stakeholder involvement in balancing economic growth, environmental sustainability, and social equity. Moreover, this perspective is consistent with macro-level policy frameworks such as the Sustainable Development Goals (SDGs) and global best practices that advocate for collaborative approaches in addressing the three dimensions of sustainability which is economic, social, and environmental (UNDP, 2017). A practical example of sustainable development can be seen in community-led environmental initiatives, such as beach clean-ups and regular stakeholder meetings. As highlighted by one informant from the tourism business sector:

> *"…. For example, Beach Boy Association, we regularly hold meetings, and when we have free time or fewer tourists, we organize beach cleanups. This helps improve the cleanliness of the area and contributes to the sustainability of the local environment…."* ***(BP4: Tourism Business Operators)***

This grassroots initiative reflects the community's proactive role in environmental stewardship, aligning with literature that underscores the significance of community-based tourism (CBT) in promoting sustainable tourism practices (Goodwin, 2011). This approach also reinforces the principles of participatory development, where institutional and community engagement are vital for achieving sustainable outcomes (Scheyvens & Momsen, 2008). Despite ongoing conservation efforts, concerns persist regarding large-scale development projects that threaten the island's natural heritage and ecological balance. Informants expressed apprehension about the potential socio-economic and environmental consequences of such projects:

> *"…Leave the island alone and No MEGA projects development. Preserve the island with their natural heritage, ensuring the protection of its unique ecosystems, cultural traditions, and the well-being of local communities…"* ***(A2: Academia)***

> *"...Efforts at protecting resources like coral reefs are undermined by tourists' careless behavior, and a lot of coral reefs have already been destroyed because they stepped on it…."* ***(C1: Community)***

Studies indicate that mega-projects often lead to environmental degradation and disrupt traditional livelihoods by prioritizing short-term economic benefits over long-term sustainability (Gössling et al., 2018; Saarinen, 2020). Such developments pose a risk to Pangkor Island's cultural and ecological uniqueness, potentially diminishing its attractiveness as a distinctive tourism destination (Tao & Wall, 2009). Additionally, the observed degradation of coral reefs underscores the urgent need for stricter environmental protection measures to prevent further ecological harm.

The overall findings highlight the importance of sustainable development in ensuring the long-term resilience of Pangkor Island's community livelihood assets.

Integrating responsible resource management with economic activities, sustainable practices, and community-led environmental initiatives is vital for balancing growth with ecological preservation. Local engagement, through initiatives like beach clean-ups, demonstrates the community's commitment to environmental stewardship. However, concerns over large-scale development projects threaten the island's unique ecosystems and cultural heritage. To preserve the island's natural resources and prevent further ecological damage, there is a strong call for more stringent environmental protection measures.

4.4.2.2 Human Capital Development

Human capital development plays a crucial role in ensuring the sustainability of community livelihood assets. Informants emphasized the importance of enhancing training and educational programs to improve local skills, foster entrepreneurship, and enhance community resilience. Investing in human capital strengthens the workforce, facilitates business growth, and supports economic diversification (Gössling & Schweiggart., 2022). Skill development initiatives tailored to local economic activities, such as sewing and food businesses, are essential in empowering communities and promoting sustainable tourism development (Kaplan, 2004; Wani et al., 2022). As highlighted by an informant from the tourism business sector:

> *"…. As a representative of the vendors' association, I assist traders in various ways, such as upgrading their menus and providing them with knowledge about business concepts, including Islamic principles. The government needs to place greater emphasis on financial assistance and similar support. This would align more effectively with the strategies being implemented…."* ***(BP1: Tourism Business Operators)***

> *"…The strategy also outlines the provision of skills training, courses, enforcement, and other initiatives aimed at enhancing local capacities, fostering sustainable development, ensuring compliance with regulations, and providing the community with the necessary tools for long-term economic stability…" (**LA1:*

Government)

While skills development is essential for sustainable livelihoods, financial assistance remains a crucial enabler for small businesses, particularly in tourism-dependent economies. Access to microfinance and grants can significantly enhance entrepreneurial resilience and stimulate local economic activity (Al-Hafidz et al., 2024; Arora, 2024; UNWTO, 2023). Informants expressed the need for targeted financial support to strengthen specific sectors:

> *"……Expanding support for residents' skills development, such as training in sewing, food businesses, and other areas, is important. I would especially like to see improvements in food-related businesses…"* ***(A1: Academia)***

> *"……. While training programs have been useful, the lack of financial assistance remains a significant challenge. Direct access to subsidies or affordable financing would allow us to invest in better equipment and expand our product offerings."* ***(C5: Community)***

> *".... Our business is seasonal. Without financial support from the government, it is challenging to save or invest in better equipment or renovate our stalls…"* ***(BP3: Tourism Business Operators)***

However, over-reliance on financial assistance poses risks such as dependency and resource misallocation. Financial aid must be complemented by robust monitoring and capacity-building measures to ensure its effectiveness and sustainability (Mensah, 2024; Nurhasanah & Van den Broeck, 2022). Policymakers should adopt a balanced approach that integrates financial support with long-term strategies for skills enhancement and entrepreneurship development.

The overall findings emphasize the importance of sustainable development in maintaining the long-term resilience of Pangkor Island's community livelihoods. Integrating responsible resource management with economic activities, promoting local environmental initiatives, and avoiding mega-projects are critical for preserving the

island's ecological and cultural heritage. Additionally, human capital development, particularly skills training and financial support, is vital for fostering entrepreneurship, enhancing economic diversification, and ensuring community resilience. However, over-reliance on financial assistance could lead to dependency. A balanced approach that combines financial aid with skill-building and capacity development is essential for sustainable economic growth.

4.4.2.3 Digital Promotion

Digital promotion is an essential strategy for enhancing sustainable community livelihood assets, focusing on leveraging technology to boost visibility and sales. Informants emphasized that digital marketing initiatives, such as those introduced through Digital Perak, play a vital role in promoting local businesses and attractions. These initiatives utilize online platforms and social media channels to effectively reach a broader audience, thereby boosting sales and attracting more tourists. Beyond general digital marketing efforts, specific initiatives like the Pangkor Passport, an e-tourist guide, have been introduced to enhance visitor engagement and streamline their experiences. By providing digital tools and resources, the community can better showcase local offerings, such as Laksa Pangkor, a popular island dish, and manage tourist activities more efficiently. As highlighted by an informant from the tourism sector, integrating modern digital practices supports economic growth, sustains local businesses, and fosters innovation, particularly in the culinary sector by aligning with global food marketing trends. Literature highlights the significance of gastronomy in tourism, noting that unique culinary experiences play a pivotal role in destination branding and visitor satisfaction (Mariani & Okumus, 2022).

This perspective is aligned with government effort toward digitalization and to assist businesses in digital marketing, indicating a shared understanding of the growing importance of online platforms in tourism promotion. Additionally, to address gaps in digital marketing for local business promoting packages via event and exhibitions also another effort made by the government thus, it reflects the government’s active role in bridging the promotional gaps faced by local businesses, particularly in digital spaces. Recent studies emphasize the critical importance of digital marketing in the post-pandemic era, noting that effective online promotion can increase destination visibility

and competitiveness (UNWTO, 2023). However, literature also cautions that digital strategies must be inclusive and accessible to ensure that all local businesses, including those with limited digital literacy, can benefit (Tiwasing et al., 2022). Collaborative efforts that align grassroots creativity with government initiatives are essential for creating a cohesive and effective tourism strategy as well as ensuring long-term benefits for the local community and economy. Following are some of the verbatim feedback from informants:

> *"…. In my opinion, Pangkor needs to introduce something new in terms of food. Just like the current trends outside, where various foods are going viral, Pangkor should do the same. For example, we could promote our unique local dishes on social media. Here, for instance, it's common to have laksa mee for breakfast. Typically, laksa is eaten in the afternoon, but here we serve it as a breakfast dish…"* ***(BP1: Tourism Business Operators)***

> *"…. We should promote our unique Laksa Pangkor on social media to attract more tourists and raise awareness about the local culinary heritage. This could help increase the island's visibility and boost tourism…"* ***(BP1: Tourism Business Operators)***

> *"…. We've received feedback from business owners who mentioned that they don't have a channel to promote their packages, so we are working to help them with that by supporting their efforts in digital promotion. Additionally, we ask for their brochures to take with us to exhibitions, as we frequently participate in such events and help promote their hotel packages…"* ***(LA3: Government)***

Overall, the findings reveal that digital promotion plays a vital role in enhancing community livelihood assets by boosting visibility, tourism, and sales. Efforts such as Digital Perak and the Pangkor Passport support local businesses, particularly in

gastronomy. Collaboration between government initiatives and grassroots creativity is crucial to address digital gaps and foster sustainable, inclusive tourism growth.

4.4.2.4 Infrastructure Development

Infrastructure development is a crucial strategy for ensuring sustainable community livelihood assets, with a focus on creating and improving facilities that support economic activities and enhance quality of life. Informants highlighted the interconnected challenges and opportunities in managing Pangkor Island's tourism sector. Initiatives such as developing more suitable infrastructure, including roads, streetlight, well-designed shop lots and organized parking areas, are essential for accommodating local businesses and improving the overall visitor experience. The positive perception from the BP3 Tourism Business Operators, reflects the effectiveness of recent governmental efforts to maintain and upgrade essential infrastructure. Well-maintained roads and functioning streetlights contribute to safety and accessibility, enhancing the overall tourist experience. Literature supports the notion that quality infrastructure is critical for tourism development, as it directly influences visitor satisfaction and destination competitiveness (UNWTO, 2023).

> *"... From what I see, the infrastructure looks good. The roads are in good condition, and the streetlights are functioning well. The government do well in this to maintain and upgrade some other area for better experience..."* ***(BP3: Tourism Business Operators)***

While infrastructure improvements have enhanced the visitor experience, issues of spatial congestion and vendor regulation require targeted interventions. The BP5 Tourism Business Operators provides a contrasting perspective, highlighting the limitation of current infrastructure. The feedback points to the need for strategic planning to address congestion and optimize space utilization. While the improvements in organization are acknowledged, the issue of congestion and resource competition during peal seasons reveal ongoing challenges. Studies indicate that inadequate parking and congestion can deter tourists, reducing the destination's appeal and sustainability (Gössling et al., 2022). The spatial planning and equitable resource allocation is crucial

in preventing overcrowding and ensuring smooth operations in tourism hotspots (Hampton & Jeyacheya, 2023). Effective strategies, such as zoning and capacity management, can mitigate these issues and enhance operational efficiency.

> *"….. I can see that parking is more organized now compared to before. However, it might need further expansion because the area still gets quite congested during the tourist season. This is because we share the space with other vehicle rental operators, and sometimes we compete for passengers in the same area. Perhaps a new strategy is needed to create more designated spaces…"* ***(BP5: Tourism Business Operators)***

Additionally, implementing concepts like the RNR (Rest and Relax) for small sellers and enhancing public amenities such as streetlights contribute to a more functional and attractive environment. These infrastructure improvements not only support economic activities but also foster a safer and more pleasant community space. By investing in well-planned and functional infrastructure, the community can better support its businesses, manage increased tourist activity, and ensure a sustainable and vibrant local economy. On top of that, regulatory approach aims to promote professionalism and operational consistency among vendors and balancing enforcement with education. Recent literature emphasizes the importance of governance and stakeholder collaboration in enhancing service quality and maintaining a destination's reputation (Scheyvens & Biddulph, 2018). Following are some of the verbatim feedback from informants:

> *"…. Implementing an R&R (Rest and Relaxation) concept for local vendors involves setting up a system where each vendor must adhere to specific opening hours as outlined in their agreement. The R&R system enforces these hours, and failure to comply without valid reasons can result in fines. We don't aim to penalize our vendors but rather to educate them towards better human resource preparation and openness, ensuring they are well-prepared and adhere to the agreed standards…"* ***(BP1: Tourism Business Operators)***

Overall, infrastructure development on Pangkor Island has significantly enhanced tourism experiences and community livelihood assets. Improvements in roads, lighting, and organized spaces have increased safety and accessibility. However, spatial congestion and limited vendor regulation remain concerns. Strategic planning, capacity management, and regulatory initiatives like the R&R concept are essential for sustainable tourism growth and operational efficiency.

4.4.2.5 Section Summary

The findings highlight four key strategies for enhancing community livelihood assets in Pangkor Island which is sustainable development, human capital development, digital promotion, and infrastructure development. Sustainable development is vital in balancing economic growth, environmental protection, and social equity (Kumar et al., 2024). Community-led initiatives, such as beach clean-ups and stakeholder collaboration, demonstrate proactive environmental stewardship. However, concerns persist about mega-projects threatening the island's ecological integrity and cultural identity, highlighting the need for stricter conservation and development controls.

Human capital development focuses on skills training, entrepreneurship, and balanced financial aid. While skill-building efforts are in place, many community members face limited access to financial assistance, which restricts their ability to expand or sustain small businesses. A balanced approach combining training with financial aid and capacity-building is critical for inclusive economic growth. Digital promotion, through initiatives like Digital Perak and Pangkor Passport, supports tourism visibility and local businesses. However, inclusivity remains a challenge for businesses lacking digital literacy, requiring government support to close the gap.

Lastly, infrastructure development enhances visitor experience and economic activities but requires better spatial planning to address congestion. Strategic spatial planning and vendor regulation such as the R&R concept are essential to ensure smooth operations and long-term sustainability. These strategies collectively support long-term community resilience, sustainable tourism, and balanced socio-economic and environmental outcomes.

4.4.3 Community Involvement in Shaping Developmental Policies (RQ 2.4)

The theme of community involvement in shaping developmental policies encompasses three key subthemes: **(i) Local Knowledge, (ii) Trust and Social Cohesion,** and **(iii) Empowerment and Participation.** These subthemes highlight the importance of integrating community insights, fostering strong relationships, and enhancing local capacity in the policy-making process. Local Knowledge emphasizes the value of incorporating residents' expertise and experiences into policy decisions to ensure that policies are relevant and effective. Trust and Social Cohesion focus on building strong community bonds and trust between policymakers and residents, which is essential for successful collaboration and implementation. Empowerment involves equipping community members with the tools and opportunities to actively participate in and influence developmental decisions. Together, these subthemes underscore the critical role of community engagement in shaping policies that are both effective and reflective of local needs and aspirations.

Figure 4.21 below presents the project map and comprehensive elucidation.

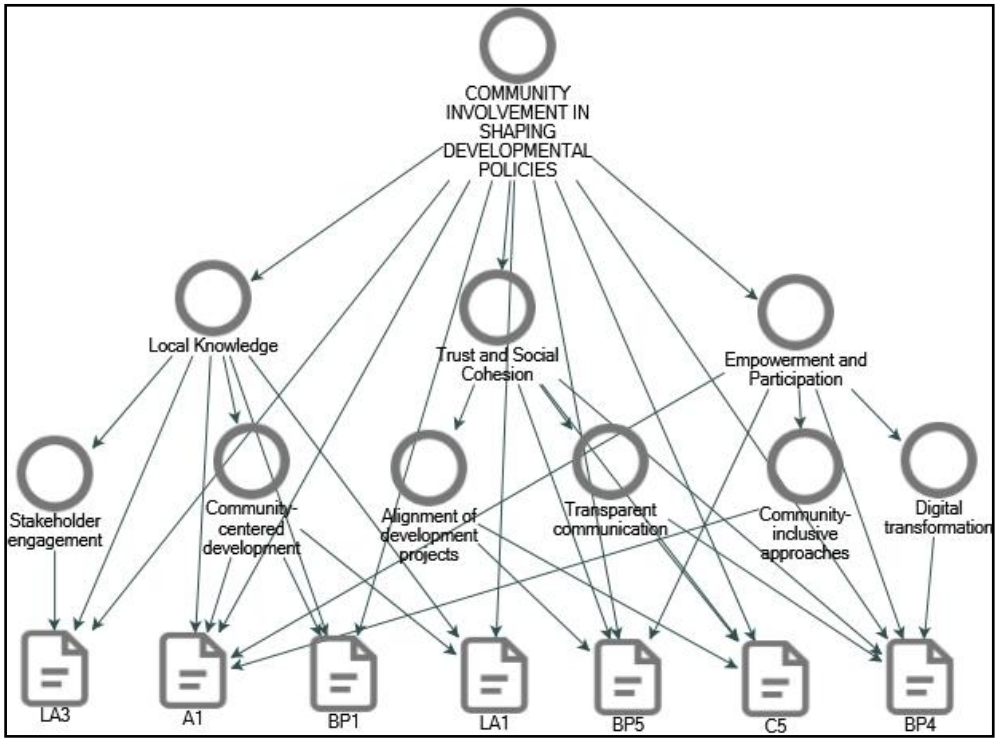


Figure 4.21 Project Map of the Community Involvement in Shaping Developmental Policies

Source: Researcher

4.4.3.1 Local Knowledge

Local knowledge is essential in community participation and the formulation of effective developmental policies, as it provides valuable insights into the unique needs, conditions, and challenges faced by the community (Suhaeb et al., 2024). In the context of eco-tourism destinations, recognizing and integrating local knowledge is crucial for sustainable destination development (Zainal et al., 2024). Informants emphasized that policy decisions should reflect the expertise and lived experiences of those directly affected, as their input can significantly enhance the relevance and effectiveness of policies.

The insights from Academia 1 highlight the multi-dimensional benefits of community participation. This perspective aligns with the principles of participatory governance, which advocate for integrating local insights to improve policy relevance and sustainability. Participatory governance fosters community ownership and alignment with local needs, particularly in rural and tourism-dependent regions (Hampton & Jeyacheya, 2023). On the other hand, government informants underscored the community's role in policy execution, supporting existing research that suggests successful policy implementation relies heavily on community buy-in and active participation (Su et al., 2022).

> *"…. Community involvement in shaping developmental policies that affect their livelihoods is crucial for several reasons such as local knowledge and expertise, empowerment and ownership and cultural sensitivity. Community input is particularly crucial in several key aspects of policymaking, where the unique insights, knowledge, and perspectives of the local community can significantly enhance the effectiveness and sustainability of policies. …" **(A1: Academia)***

> *"…. The community is a key contributor to the implementation of policies. Their ideas and knowledge are crucial to ensuring that development policies are effectively and strategically executed…." **(LA1: Government)***

> *"…. MPM conducted a Focus Group Discussion (FGD) with industry players and relevant departments/agencies to discuss the overall development of Manjung and including Pangkor Island…"* ***(LA3: Government)***

Community support and involvement are fundamental to policy success. Utilizing local knowledge fosters a sense of ownership and responsibility among residents, increasing their willingness to participate in policy execution. This collaborative approach strengthens the community's role in shaping their development, leading to more sustainable and impactful outcomes. However, community participation can sometimes be superficial, with limited influence over substantive decisions. Effective participatory governance requires genuine collaboration, transparency, and the equitable distribution of benefits (Gössling & Lane, 2022). For Pangkor Island, achieving this balance necessitates continuous dialogue among stakeholders and the integration of monitoring mechanisms to assess policy impacts.

> *"…. We attended meetings and give our opinions, but sometimes it feels like our suggestions are ignored. The tourism policies don't always reflect our needs as small business owners especially on the new stall development." …"* ***(BP1: Tourism Business Operators)***

Overall, the findings highlight that integrating local knowledge into policy development enhances relevance, sustainability, and community ownership. Stakeholders emphasized the value of lived experiences in shaping effective tourism policies. However, genuine participatory governance remains a challenge, as some community members feel their contributions are undervalued or ignored in actual policy implementation.

4.4.3.2 Trust and Social Cohesion

Trust and social cohesion play a pivotal role in ensuring effective community involvement in developmental policies, particularly in areas such as infrastructure

development and business management. Informants highlighted that a strong sense of trust between policymakers and the community facilitates smoother decision-making and fosters cooperation. When residents believe that their interests are genuinely considered, they are more likely to support and engage in policy initiatives. This trust is crucial for addressing local needs and implementing projects that benefit the entire community.

A lack of transparency and meaningful engagement in policy processes can undermine trust and alienate local stakeholders, as reflected in concerns raised by tourism business operators regarding coastal development projects. Informants BP4 and BP5 emphasized the need for participatory governance that prioritizes early and consistent community engagement. Literature supports this by highlighting the importance of transparency and trust in fostering effective stakeholder collaboration (Scheyvens & Biddulph, 2020).

> *"…. The community should be involved in any development, but it's hard to say because sometimes when we speak up in meetings, nothing really changes in the end. For example, with this new business area, the size isn't what we discussed, yet the project has already started. So, naturally, we're not happy about it. We discussed one thing, but the outcome is different. The authorities need to have better understanding and dialogue with the community to foster unity and collaboration…"* ***(BP4: Tourism Business Operators)***

> *"…. Ideally, our voices should be heard, but not always in every instance. For example, when it comes to development along the coast, sometimes information doesn't reach us. Suddenly, we're told to relocate. So, if we're talking about the importance of involvement, there needs to be understanding, trust, and collaboration in shaping any policies or developments. This is because every phase of development is crucial—from the beginning to the end…"* ***(BP5: Tourism Business Operators)***

Social cohesion within the community also contributes to more effective policy implementation. A united community can collaborate more efficiently on infrastructure projects, share resources, and support local economic activities. However, the literature cautions against excessive stakeholder involvement, which can slow decision-making and result in fragmented outcomes. Striking a balance between inclusivity and efficiency is key to achieving sustainable development goals (Hampton & Jeyacheya, 2023). This is supported by the informant's feedback:

> *"…. In my opinion, it's important for residents to be informed from the very beginning about any planning and development. As I mentioned earlier, current planning doesn't seem to be well thought out for the benefit of the residents. While the focus on tourism development is very clear, it's not as obvious how it will benefit the local population, especially in the long term. We need to first consider how infrastructure planning can promote the well-being of both tourists and residents. Take this jetty, for example. The seating is uncomfortable, it's hot, and overall, it's unsuitable for both visitors and us locals…"* ***(C5: Community)***

Overall, the findings reveal that trust and social cohesion are vital for effective community participation in policy development. When communities feel genuinely heard and included, collaboration improves, and support for development initiatives strengthens. Informants stressed that transparent communication and early engagement build trust, while inconsistent dialogue and unmet expectations erode it. Strong internal cohesion also enables better resource-sharing and local project execution. However, excessive stakeholder involvement may hinder efficiency, highlighting the need for balanced, inclusive governance that ensures both transparency and timely outcomes.

4.4.3.3 Empowerment and Participation

Empowerment is a key component of community involvement in policy development, particularly in the context of skill-building and technological advancement. Community participation and empowerment in tourism are vital for balancing local interests and promoting sustainable development (Boley & McGehee,

2014; Tong et al., 2024). Empowerment has yielded positive outcomes, including poverty reduction, cultural preservation, strengthened social cohesion, greater involvement of women in the workforce, and improved conditions for vulnerable groups. Informants from academia emphasized that incorporating local knowledge into policymaking enhances legitimacy, equity, and long-term policy success.

> *"…. Community input is particularly crucial in several key aspects of policymaking, where the unique insights, knowledge, and perspectives of the local community can significantly enhance the effectiveness, empowerment, and sustainability of policies…." **(A1: Academic)***

However, in some tourist destinations, unequal empowerment has led to the marginalization of local communities, resulting in poverty, cultural erosion, and conflicts over property rights (Bao & Yang, 2022). Informants stressed the need for youth development initiatives to ensure that the younger generation is equipped with relevant skills, particularly in digital literacy, to remain competitive in a technology-driven tourism industry. Digital literacy strengthens the resilience of tourism-dependent communities and enables them to leverage technological advancements for business growth and policy engagement (Hampton & Jeyacheya, 2023).

> *"… we need to reconsider how to influence the younger generation on digital skills and give them training on that as technological development will be crucial to keeping up with current trends, such as promotion and so on…." **(BP4: Tourism Business Operators)***

Overall, the findings highlight the importance of empowerment and community participation in tourism policy development, particularly through skill-building and technological advancement. Empowerment enhances local involvement, leading to positive outcomes such as poverty reduction, cultural preservation, and social cohesion. However, unequal empowerment can marginalize communities, causing social issues and economic disparities. Informants emphasized the need for youth development, particularly in digital literacy, to ensure the younger generation can thrive in a technology-driven tourism industry. This approach strengthens community

resilience and supports sustainable business growth, ensuring equitable benefits for all stakeholders. Therefore, to conclude the findings the overall themes and research model embodied in these research questions are illustrated in figure 4.12.

4.4.3.4 Section Summary

The findings highlight three critical elements for effective tourism policy development on Pangkor Island which are local knowledge, trust and social cohesion, and community empowerment. Integrating local knowledge ensures policies reflect lived experiences, community needs, and environmental realities, thereby enhancing their relevance and sustainability. Informants stressed that community participation fosters ownership and improves implementation outcomes. However, concerns persist over superficial engagement, where community input is solicited but not meaningfully considered. Trust and social cohesion further influence community cooperation where consistent communication and early engagement were identified as vital for fostering mutual trust and reducing resistance. Meanwhile, empowerment especially through skills development and digital literacy was seen as key to supporting local resilience and long-term participation. Although empowerment can yield numerous benefits, unequal opportunities may marginalize some groups. Thus, a balanced, inclusive governance approach is necessary to ensure equitable and sustainable tourism outcomes.

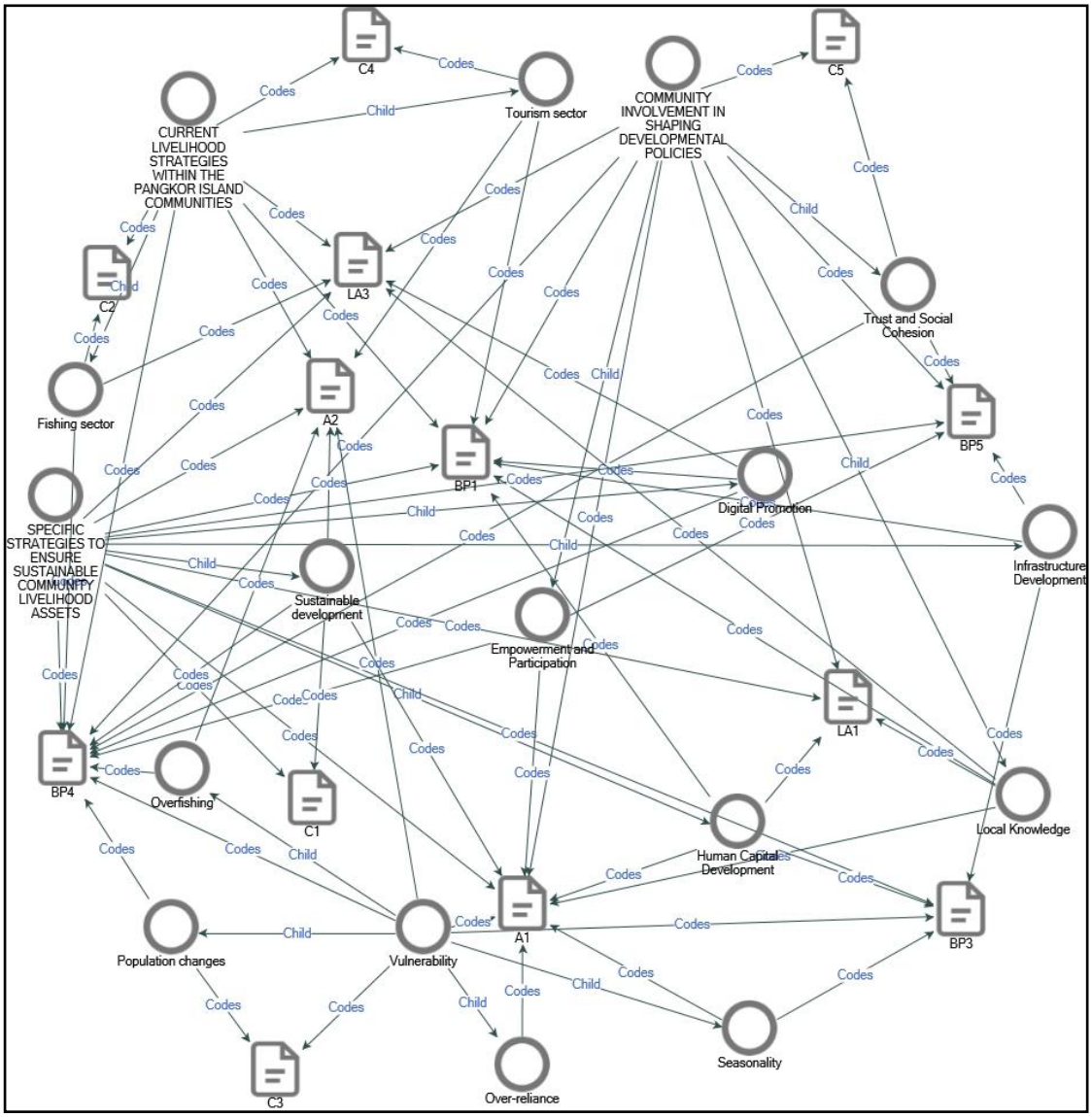


Figure 4.22 Overall Themes and Interconnected Codes for Research Questions Two
Source: Researcher

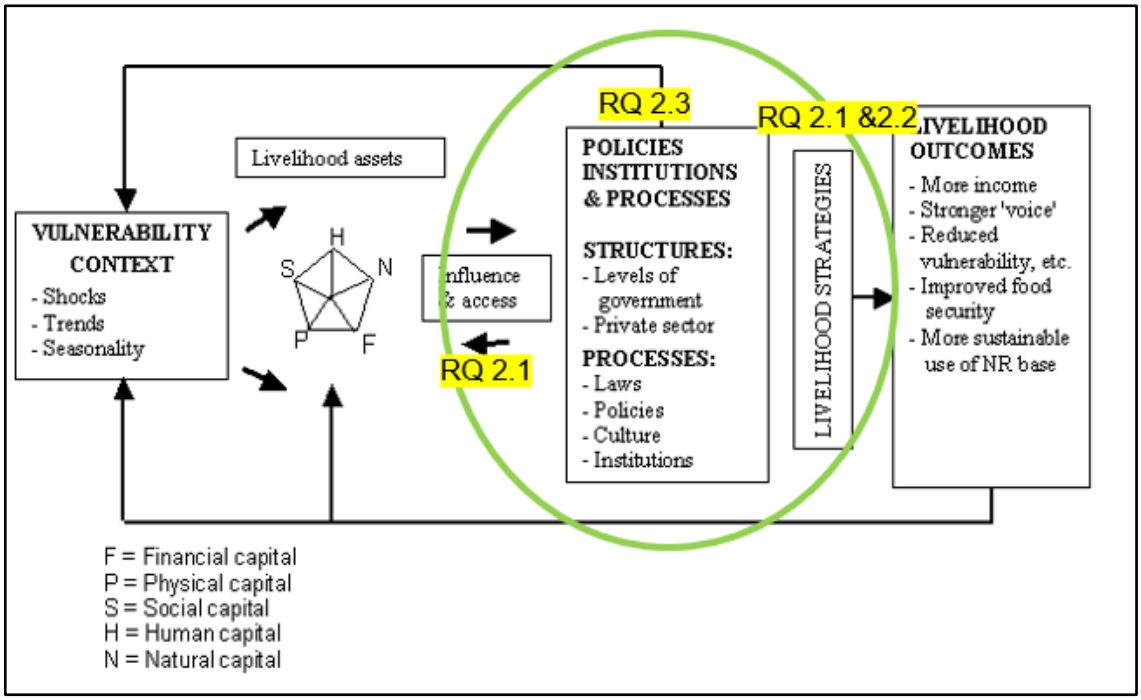


Figure 4.23 Research Model for Stakeholders' Perceptions of the Potential Changes in Developmental Policies in Support of the Pangkor Island Community's Livelihood Strategies and Their Livelihood Outcomes
Source: Researcher

4.5 Multi-Livelihood Strategy Through the Blue Economy Concept Enhances the Pangkor Island Community's Livelihood Strategies and Their Livelihood Outcomes (RQ3)

It is essential to explore the interplay between diversified economic activities and sustainable development practices within the context of the Blue Economy. The Blue Economy concept emphasizes the sustainable use of ocean resources for economic growth, improved livelihoods, and ocean ecosystem health. By adopting this concept, the Pangkor Island community aims to integrate various livelihood strategies, such as tourism and fishing, with environmentally responsible practices. This approach not only aims to enhance economic opportunities but also seeks to improve the overall well-being of the community while preserving the island's marine and coastal environments. Understanding how these strategies are implemented and their impact on both the community's livelihood and outcomes will provide valuable insights into the effectiveness of the Blue Economy in fostering sustainable development. We now have the following interview questions:

Interview Question 3.1:
How familiar are you with the concept of Blue Economy, especially in the context of small island communities like Pangkor?

Interview Question 3.2:
What initiatives or policies has the government implemented to support the livelihoods of Pangkor Island's community particularly in relation to the Blue Economy concept?

Interview Question 3.3:
From your perspective, how can the Blue Economy concept integrated into existing livelihood strategies of the Pangkor Island community?

Interview Question 3.4:
What specific livelihood outcomes do you hope to achieve through the proposed multi-livelihood strategy based on the Blue Economy concept?

Interview Question 3.5:
How do you see the proposed multi-livelihood strategy influencing the economic and social well-being of the community, as well as the sustainability of tourism operations?

Interview Question 3.6:
What challenges do you anticipate in implementing the proposed multi-livelihood strategy through the Blue Economy concept?

4.5.1 The Concept of Blue Economy of Pangkor Island (RQ3.1)

According to the World Bank and Unites Nations Development Programme (UNDP), the Blue Economy promotes sustainable fisheries, aquaculture, tourism, and renewable marine energy sources, while mitigating negative impacts on the environment. The theme of familiarity with the Blue Economy concept, particularly in the context of small island communities such as Pangkor, encompasses three key subthemes: **(i) Traditional Livelihoods and Sustainable Tourism (ii) Integration of Marine Resource Use and Tourism,** and **(iii) Marine Conservation and Ecosystems.**

These subthemes highlight different facets of the Blue Economy as they relate to island communities. Sustainable Fisheries focus on practices that ensure long-term viability of fish stocks and support local livelihoods. Marine and Coastal Tourism addresses the balance between promoting tourism and protecting natural resources. Marine Conservation emphasizes the protection and restoration of marine ecosystems. Understanding these areas is crucial for assessing the community's awareness and engagement with the Blue Economy principles, which aim to enhance both economic opportunities and environmental sustainability.

Figure 4.24 below presents the project map and comprehensive elucidation.

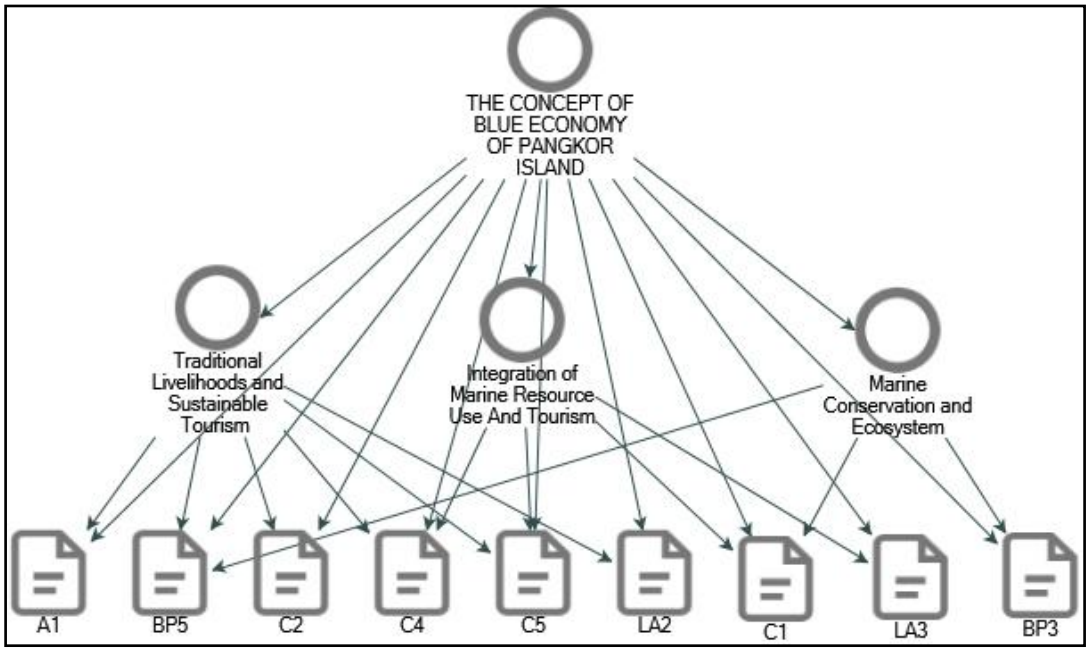


Figure 4.24 Project Map of the Concept of Blue Economy
Source: Researcher

4.5.1.1 Traditional Livelihoods and Sustainable Tourism

Sustainable ocean resources are a fundamental pillar of the Blue Economy, particularly for small island communities such as Pangkor. Informants emphasized the importance of sustainable marine resource management to balance economic growth with environmental preservation. Sustainable fishing practices are essential for maintaining viable fish stocks while preventing overfishing and biodiversity loss. These practices not only secure long-term livelihoods but also help conserve marine

ecosystems for future generations. In addition to responsible fishing, traditional methods of fish processing, such as those used for blue-eyed anchovy, play a significant role in preserving cultural heritage and sustaining local economies. These time-honored techniques provide a sustainable alternative to industrial processing, ensuring that local customs and identities remain intact. Integrating modern sustainability practices with traditional knowledge enhances both the economic and cultural value of local fisheries, aligning with the broader goals of the Blue Economy in promoting ecological balance and economic resilience. The following are verbatim responses from informants:

> *"…. In the context of small island communities like Pangkor, the Blue Economy holds particular significance. These communities often heavily rely on the resources provided by the surrounding seas, economic activity such as fisheries and tourism. Sustainable management of marine resources becomes critical for long-term prosperity…." (**A1: Academia)***
>
> *"…. the primary source of livelihood for the residents of Pangkor comes from the sea, such as fishing, and this significantly impacts the concept of the Blue Economy, where sustainable fishing practices and resource conservation are crucial. Here, we are popular with blue-eyed anchovy. The traditional process makes us unique compared then other anchovies. In addition, tourism activities also influence this concept to some extent, such as water sports, ferry transportation, and pontoons…" (**LA2: Government)***
>
> *"…. Fishing is more dominant than other industries and it is important to use ocean resources wisely, like how tourism and fishing can coexist without harming the environment…" **(BP5: Tourism Business Operators)***

Despite the strong reliance on marine resources, the findings indicate a significant gap in awareness and understanding of the Blue Economy concept among Pangkor Island's community members. This disconnects between policy-level discourse and grassroots practices highlights a broader challenge in bridging theoretical

frameworks with local realities. According to Voyer et al. (2018), the term “Blue Economy” is often perceived as abstract, making it less accessible to local stakeholders who prioritize immediate economic needs over long-term sustainability frameworks. However, despite their unfamiliarity with the concept, informants demonstrated a willingness to explore how the Blue Economy could support local livelihoods through innovative approaches in fisheries and tourism. This aligns with findings by Foley et al. (2020), which suggest that communities are more likely to adopt sustainable practices when they see clear economic and social benefits. The following are verbatim responses from informants:

> *"…. I’m not very sure about the term, but if it’s about using the ocean, we’ve always relied on it for our living such as fishing. We’ve depended on the sea for generations, and it’s our main source of income. I’m not familiar with the technicalities of the Blue Economy, but if it’s related to how we use the ocean for our livelihoods, then we’re already part of it without knowing the term…” (**C2: Community)***

> ***"…**I’m not aware of this concept, but it would be helpful to understand how it could help us innovate in our tourism and fisheries sectors. If it can help us manage our resources better, improve our businesses, and attract more tourists while preserving our environment, then I’d be interested in learning more about it. The sea is vital to our way of life, so any ideas to make it sustainable are worth exploring**…" (C5: Community)***

Overall, the findings highlight the importance of managing marine resources sustainably for the livelihoods of Pangkor Island's residents, especially through fishing and traditional fish processing methods. While many are unfamiliar with the Blue Economy concept, there’s a strong interest in how it could help balance tourism and fishing while preserving both the environment and local culture for future generations.

4.5.1.2 Integration of Marine Resource Use and Tourism

Marine and coastal tourism represent a growing component of the Blue Economy, contributing significantly to economic growth, employment, and livelihood diversification in coastal communities (Ahameed et al., 2024; Cerqua, 2017; Phelan et al., 2020; Silver et al., 2015). For Pangkor Island, where fishing is often seasonal, tourism offers an alternative income source, reducing economic vulnerability and supporting household resilience. The expansion of tourism-related activities such as water sports, ATV rides, and beach events plays a crucial role in boosting local economies. These activities not only attract visitors but also create employment opportunities and generate revenue. Moreover, integrating tourism with local fisheries offers tourists an authentic experience, fostering deeper cultural appreciation while promoting sustainable resource management. By aligning tourism strategies with environmental sustainability, the community can enhance its appeal while preserving marine ecosystems for future generations. The following are verbatim responses from informants:

> *"….. The concept of the blue economy is related to the ocean. What I envision are things like fishermen—how they catch fish and, at the same time, others who engage in beach-related businesses, such as boatmen, snorkeling, and so on…."* ***(C4: Community)***

> *"…. Tourism and water activities, such as water sports, are important aspects of the blue economy. Pangkor is particularly unique in this regard because it is sheltered from monsoon winds, which means it avoids the severe waves experienced in other regions. This makes it an ideal location for water sports and contributes to its appeal as a tourist destination…."* ***(LA3: Government)***

However, findings also reveal challenges in balancing tourism development with traditional livelihoods and environmental preservation. Increased tourism activities contribute to sedimentation, coral damage, and pollution from boat traffic,

leading to biodiversity loss and reduced sustainability of marine resources (Hall & Saarinen, 2010).

> *"…increased tourist activities can harm marine ecosystems and disrupt fishing zones, especially when there are more boats, water sports, and beach events. The growing number of tourists causes more pollution, damages coral reefs, and makes it harder for fish to thrive in these areas. It's crucial to find a balance so that both tourism and fishing can coexist without harming the environment or the livelihoods that depend on it…"*
> ***(C1: Community)***

Overall, the findings show that tourism is becoming an important source of income for Pangkor Island, especially as fishing can be seasonal. Activities like water sports and beach events bring in tourists, create jobs, and help local businesses thrive. However, there are concerns about the environmental impact, such as coral damage and pollution from boats. The community is eager to balance the growth of tourism with protecting their natural resources, ensuring both the local economy and marine ecosystems can be sustained for future generations.

4.5.1.3 Marine Conservation and Ecosystems

Marine conservation is a fundamental aspect of the Blue Economy, focusing on the protection and sustainability of marine ecosystems (Apriantoro et al., 2025). Conservation efforts ensure that resources remain available for future generations, a core goal of sustainable ocean management. Informants highlighted several key initiatives on Pangkor Island, including turtle conservation programs and coral planting projects. These activities play a crucial role in maintaining biodiversity and supporting the long-term sustainability of marine environments.

The restoration of coral reefs reflects the community's commitment to ecosystem rehabilitation. Healthy coral reefs provide essential habitat for marine life, protect coastlines from erosion, and support tourism activities like snorkeling, which enhances local economic opportunities. Conservation efforts, such as beach clean-ups, also contribute to maintaining the ecological integrity of coastal areas, ensuring they

remain attractive for both residents and tourists. The following are verbatim responses from informants:

> *"…there used to be turtles here as well, and the local community managed their conservation efforts. This effort was part of contributing to the blue economy—preserving the turtle ecosystem because these turtles frequently come to our beaches. The local community has been actively involved in these conservation activities…."* ***(BP3: Tourism Business Operators)***

> *"…. Activities such as coral planting positively impact the blue economy by making the island more sustainable and resilient. Healthy coral reefs support coastal activities like snorkeling, which in turn attracts visitors and enhances their experience. This contributes to the overall sustainability of the island and its economic stability…."* ***(C1: Community)***

However, findings suggest a common challenge in marine conservation where top-down decision-making often undermines local engagement, reducing the effectiveness of sustainability initiatives. External authorities, such as municipal officials, may impose conservation strategies without incorporating local knowledge, leading to disconnects in implementation. Local communities, as historical stewards of their environment, possess valuable ecological knowledge essential for successful conservation efforts (Berkes, 2009; Bennett et al., 2020).

> *"The community used to care about turtle conservation, but there's a general feeling that it's not worth it anymore. The municipal authorities came in, but all they did was take control and make decisions without understanding the local knowledge.*
> ***(BP3: Tourism Business Operators)***

Overall, the findings highlight the importance of marine conservation for the Blue Economy, particularly through initiatives like turtle conservation and coral planting on Pangkor Island. These efforts contribute to biodiversity, protect coastal

areas, and support tourism. However, there are challenges, as top-down decision-making often overlooks local knowledge, diminishing the effectiveness of conservation efforts. Engaging the local community is crucial for the success and sustainability of these initiatives, as they have valuable ecological insights.

4.5.1.4 Section Summary

This section highlights the importance of sustainable marine resource management for Pangkor Island's livelihood, particularly through traditional fishing practices and the growing role of tourism. Sustainable fishing and practices like blue-eyed anchovy processing contribute to both economic and cultural preservation, aligning with the Blue Economy. However, there is limited awareness of this concept among community members, though they express interest in learning more about its potential benefits for their industries. Additionally, tourism is seen as a crucial income source, especially during seasonal fishing lulls, but there are concerns over environmental impacts such as coral damage and pollution. Marine conservation efforts, like turtle protection and coral planting, are vital for ecosystem health and economic stability, though challenges arise when top-down policies ignore local knowledge. Engaging local communities in conservation is key for the success of these initiatives, ensuring the long-term sustainability of both marine resources and livelihoods.

4.5.2 Initiatives Or Policies Has the Government Implemented to Support the Livelihoods of Pangkor Island’s Community Particularly in Relation to the Blue Economy Concept (RQ3.2)

Government initiatives and policies play a crucial role in supporting local livelihoods, particularly in the context of small island communities. A specific policy related to blue economy concept of Pangkor island one of it is the Focus Group Discussion (FGD) among various local agencies such as Town Planning Department, Manjung Municipal Council, Department of Fisheries Malaysia, and Marine Department. The specific discussion in relation to sustainable development goal initiatives has been highlighted to ensure the principles of the blue economy are integrated into planning, especially for the island's residents. The three primary themes

in this area are: **(i) Economic Stimulus Packages**, which include measures such as fuel subsidies and financial allowances for local fishermen to mitigate operational costs and provide economic stability, and **(ii) Environmentally Sustainable Initiatives**, which focus on promoting practices like coral planting and turtle conservation to ensure the long-term health of marine ecosystems. **(iii) Promotion of Eco-Tourism**, such infrastructure development to support sustainable tourism and water sports regulations to ensure sports activities do not harm marine environments, thus promoting responsible tourism. Figure 4.25 below presents the project map and comprehensive elucidation.

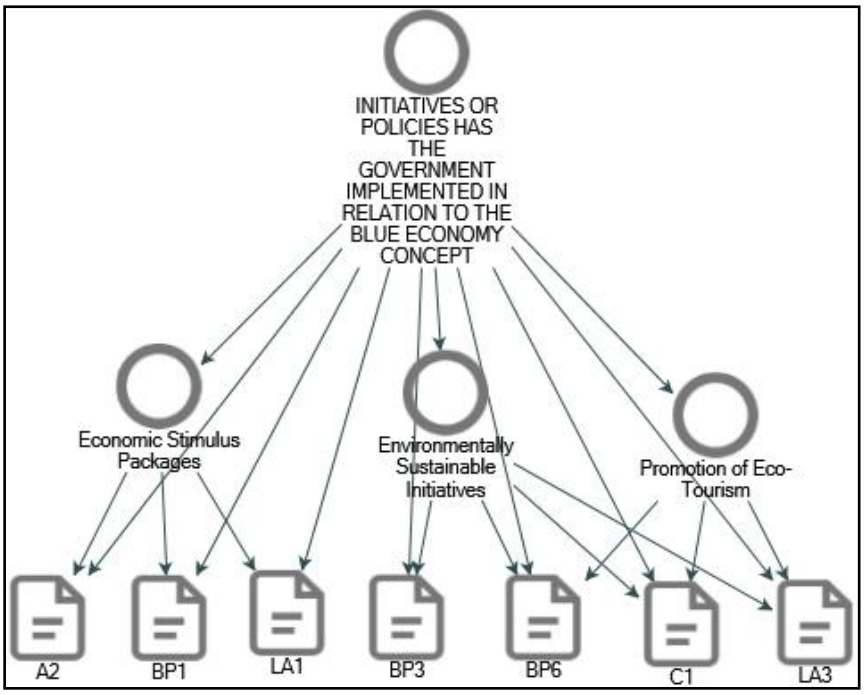


Figure 4.25 Project Map of the Policies Initiatives Implemented by Government in Relation to the Blue Economy Concepts
Source: Researcher

4.5.2.1 Economic Stimulus Packages

The government has introduced various economic stimulus packages to support local livelihoods, particularly those of the fishing community on Pangkor Island. Among the most notable measures is the provision of fuel subsidies, which significantly alleviate operational costs for local fishermen. Since fuel expenses constitute a major portion of fishing-related costs, these subsidies play a crucial role in ensuring the

sustainability of fishing operations despite fluctuating market conditions and rising expenses.

Additionally, the government has allocated monthly allowances for artisanal fishermen, reinforcing its commitment to supporting this vital sector. These allowances provide a stable source of income, which is essential for sustaining local fisheries and improving the livelihoods of those involved. Moreover, the fuel subsidy program specifically designed for Pangkor fishermen directly addresses the cost of essential resources, thereby enhancing the economic stability and operational efficiency of local fisheries. Collectively, these initiatives reflect a comprehensive approach to strengthening the economic resilience of the community through targeted financial support. The effectiveness of these subsidies is reflected in the perspectives of informants:

> *"…. Fuel subsidies and some monthly allowance for the artisanal fishermen supported the livelihoods of Pangkor Island's community particularly in relation to the Blue Economy concept…" **(A2: Academia)***

> *"…. The government has also implemented a **subsidy program for fuel** specifically for fishermen on Pangkor Island. This initiative is designed to support the local fishing industry by reducing operational costs…" **(LA1: Government)***

However, findings also highlight concerns regarding dependency on these subsidies. Studies suggest that excessive reliance on government aid can disincentivize sustainable fishing practices and hinder investments in modernization (Sumaila et al., 2016). Without a well-structured transition plan towards sustainable livelihoods, such programs risk providing short-term relief without fostering long-term resilience (Béné et al., 2007). Nevertheless, targeted subsidies can play a positive role in reducing immediate operational costs and mitigating overexploitation of fisheries by alleviating economic pressures (Martini & Innes, 2018).

International examples, such as the EU Common Fisheries Policy, demonstrate how subsidies can be integrated with sustainability goals to balance economic support with conservation efforts (Bastardie et al., 2022). Similarly, Malaysia's initiatives

combining subsidies with capacity-building programs, such as skills training, have shown success in enhancing the livelihood sustainability of artisanal fishermen (Teh & Sumaila, 2011). However, challenges related to accessibility and implementation often exclude marginalized communities from fully benefiting from these programs. An informant expressed concerns about the unintended consequences of subsidies:

> *"…. The subsidy program may be helpful in reducing costs, but it fosters dependency on government aid rather than empowering fishermen to adopt innovative or sustainable practices…."* ***(BP1: Tourism Business Operators)***

Overall, the findings reveal that government economic stimulus packages, including fuel subsidies and monthly allowances for artisanal fishermen, play a crucial role in supporting Pangkor Island's fishing community. These initiatives help reduce operational costs and ensure economic stability. However, concerns about dependency on these subsidies were raised, with some suggesting they may hinder the adoption of sustainable practices and long-term resilience. Balancing financial aid with capacity-building programs is essential for fostering sustainable livelihoods in the community.

4.5.2.2 Environmentally Sustainable Initiatives

The implementation of conservation programs on Pangkor Island highlights a commitment to preserving marine biodiversity and promoting sustainable practices. Notably, turtle conservation efforts and coral reef restoration on Pulau Giam are crucial measures aimed at protecting marine habitats and ensuring ecological balance. The deterioration of coral reefs on Pulau Giam has been largely attributed to uncontrolled tourism activities, emphasizing the need for stronger conservation efforts and sustainable tourism management. In addition to conservation programs, the government has invested in infrastructure redevelopment to address beach erosion, a growing environmental concern. These efforts aim to protect coastal areas from further degradation, preserving both ecological balance and the viability of tourism-dependent economies. Enhancing beach management through improved tariffs and sustainable development initiatives further demonstrates a proactive approach to maintaining

coastal environments, ensuring their long-term resilience for both local livelihoods and tourism. The importance of these initiatives is reflected in informants' feedback:

> *"…So far, I have observed that the council's approach to upgrading the beach addresses both erosion issues and turtle conservation. The turtle conservation took place to ensure the sustainability of turtle species and local agencies responsible to manage it…"* ***(BP3: Tourism Business Operators)***

> *"…Penyu Alga is a rare and popular species in Pangkor. We have established the Teluk Ketapang Turtle Conservation Center under the Department of Fisheries to monitor turtle nesting activities. Although there were initial objections from local residents, the licensing and oversight are managed by the Department of Fisheries. Therefore, this collaborative effort is essential to ensure the effective conservation of sea turtles as well as to bring another uniqueness of the island…"* ***(LA3: Government)***

> *"**….** Regarding coral reefs, there aren't many in the area (Pulau Giam), so there it is given a significant impact to the natural attraction and the eco-system. For me, it is important to monitor snorkeling activities to ensure they do not cause harm to the coral …."* ***(C1: Community)***

Overall, the findings indicate that environmental initiatives on Pangkor Island, such as turtle conservation and coral reef restoration, demonstrate a growing commitment to ecological sustainability. These efforts, alongside infrastructure redevelopment to combat beach erosion, reflect a balanced approach to environmental protection and tourism development. However, the success of such initiatives relies on effective implementation, stakeholder collaboration, and sustainable tourism management to safeguard marine biodiversity and support long-term community and economic resilience.

4.5.2.3 Promotion of Eco-Tourism

Pangkor Island is endowed with rich biodiversity, featuring diverse flora and fauna, and offers an ideal setting for outdoor and eco-tourism activities (Mapjabil et al., 2015). The island's seafront is home to coral reefs and exotic marine life, contributing to its appeal as a nature-based tourism destination. Findings indicate that the government has undertaken several initiatives to promote eco-tourism, focusing on mitigating environmental degradation and enhancing the conservation of natural resources. One of the key strategies in promoting eco-tourism involves implementing strict guidelines to regulate water sports and recreational activities, ensuring minimal impact on marine ecosystems. By enforcing responsible tourism practices, these efforts contribute to the sustainability of the island's natural attractions while simultaneously fostering economic opportunities for local communities. The significance of these initiatives is reflected in informants' perspectives:

> *"…. I have observed that the council's approach to upgrading the beach, particularly at Teluk Nipah, is due to significant erosion issues. In my opinion, this upgrade is necessary because the erosion has become quite severe. the re-development assist to improve the coastal activities and promote the eco-tourism of the island…"* ***(BP6: Tourism Business Operators)***

> *"**….** The island has also become an educational hub, attracting researchers and students to study on Pangkor. In addition to ecotourism, it has become a destination for edutourism, with many scholars and students coming here for research. This indirectly promoting environmental and marine conservation program especially towards coral reef species on Pulau Pangkor…."* ***(LA3: Government)***

Overall, eco-tourism initiatives are strategically designed to preserve its rich natural environment while generating sustainable economic opportunities. Through regulatory measures, beach upgrades, and the promotion of edu-tourism, the island has integrated conservation with tourism development. These efforts not only mitigate

environmental degradation but also support community livelihoods, positioning Pangkor as a model for sustainable and resilient eco-tourism that aligns with conservation goals.

4.5.2.4 Section Summary

This section highlights the key government efforts supporting sustainable livelihoods and environmental stewardship on Pangkor Island. Economic stimulus packages, including fuel subsidies and allowances for artisanal fishermen, reduce operational costs and enhance economic stability, though concerns about dependency were raised. Environmental initiatives such as turtle conservation, coral reef restoration, and beach erosion control examines a commitment to preserving marine ecosystems among local communities. Additionally, eco-tourism promotion through beach upgrades, regulatory frameworks, and edu-tourism initiatives supports sustainable tourism and local economic development. Collectively, these efforts aim to balance ecological conservation with livelihood resilience, though effective implementation and stakeholder collaboration remain critical to long-term success.

4.5.3 Blue Economy Concept Integrated into Existing Livelihood Strategies of the Pangkor Island Community (RQ3.3)

Integrating the Blue Economy concept into existing livelihood strategies offers a promising path for enhancing sustainability and economic resilience in coastal communities. This is also to ensure the island's communities can maintain and enhance their livelihoods while protecting marine ecosystem. The three key subthemes in this integration are: **(1) Sustainable Fisheries Management,** which focuses on adopting practices that ensure the responsible use of marine resources while maintaining ecological balance, and **(2) Alternative Livelihood**, which involves developing new economic opportunities beyond traditional fishing, such as eco-tourism or marine-related industries. **(3) Climate Change Adaptation and Resilience**, and by incorporating these elements, communities can achieve a more balanced and diversified approach to economic development, aligning economic growth with environmental

stewardship. Figure 4.26 below presents the project map and comprehensive elucidation.

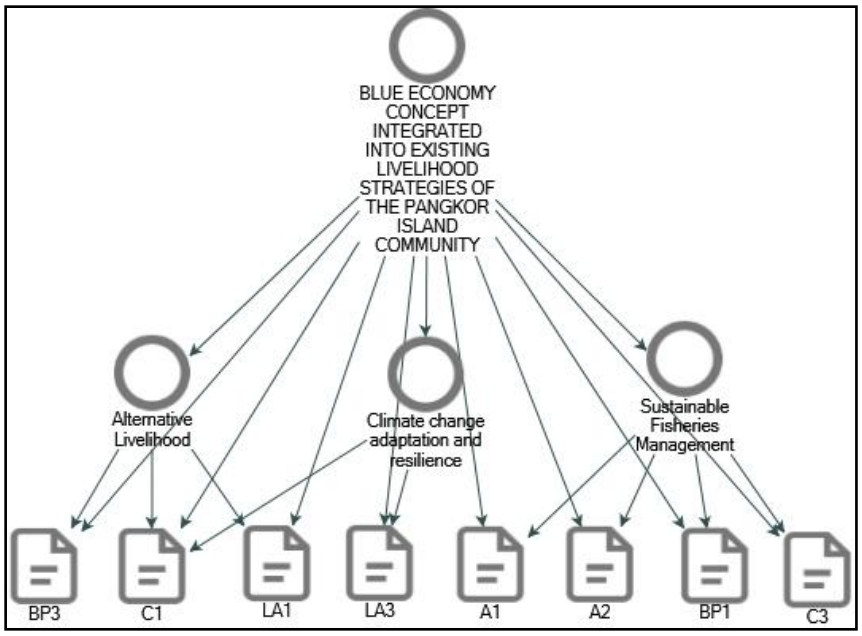


Figure 4.26 Project Map of the Blue Economy Concept Integrated into Existing Livelihood Strategies of the Pangkor Island Community
Source: Researcher

4.5.3.1 Sustainable Fisheries Management

Fishing is a fundamental livelihood for Pangkor Island's communities, encompassing both small-scale and commercial fishing for income and food security. However, the increasing pressures on marine resources necessitate the integration of sustainable fisheries management practices. Incorporating the Blue Economy concept into existing livelihood strategies can significantly enhance sustainability by balancing economic benefits with marine conservation efforts. Sustainable fisheries management involves the implementation of regulations and practices that ensure the long-term health of marine ecosystems while supporting local fishing communities. This approach includes marine conservation initiatives, habitat restoration, and the enforcement of fishing regulations to prevent overexploitation. By focusing on these conservation practices, fish stocks can be better managed, ensuring the continuity of fisheries for future generations. Despite the presence of regulations, informants highlight that

uncontrolled fishing continues to deplete fish resources, particularly affecting small-scale fishers. Some of the key concerns raised include overfishing, unregulated trawling, and the prolonged anchoring of large vessels, which can negatively impact marine biodiversity, including small fish ecosystems and coral reefs. The following verbatim feedback from informants highlights these challenges:

> *"…. Integrating the Blue Economy concept into the existing livelihood strategies of the Pangkor Island community requires a holistic and collaborative approach that considers the unique characteristics of the island, the needs of the community, and the sustainable utilization of marine resources. For example, sustainable fisheries management where it needs to involve the regulation of fishing practices to prevent overfishing and protecting the small-scale fishermen …." (**A1: Academia)***

> *"...Integrating sustainability in Pangkor island is a wake-up call for the government especially Fisheries Department. Trawlers and no-limit catch pushing many fish resources to decline and affecting small-scale fishermen. …" (**A2: Academia)***

However, there is another concern is the presence of foreign fishermen engaging in unregulated fishing practices. Studies indicate that overfishing, especially when it involves indiscriminate fishing of juvenile fish, significantly disrupts marine food chains and reduces the regenerative capacity of fish populations (Pauly et al., 1998). Informants shared the following insights:

> *"…these foreign fishermen often stay out at sea for days without any regulation. They won't return until their boats are full, and they will catch anything, whether small or large fish…" **(BP1: Tourism Business Operators)***

> *"…There is a need to implement better control and regulation over the fisheries sector to ensure its sustainability, as it is sometimes dominated by certain entities, affecting fair access*

*and benefits…." **(C3: Community)***

Overall, fishing remains vital for Pangkor Island's community, but overfishing, unregulated trawling, and foreign fishers pose serious threats to marine resources. Small-scale fishers are especially affected. Despite existing regulations, enforcement gaps persist. Informants emphasize the need for sustainable fisheries management and integrating the Blue Economy concept to balance livelihoods and marine conservation. Collaborative approaches, stricter regulations, and ecosystem protection are crucial to ensure long-term sustainability and safeguard the fishing-dependent community.

4.5.3.2 Alternative Livelihood

The pressure on fisheries and the declining fish catches in small-scale fisheries highlight the need to provide alternative livelihoods for fishers. Diversifying economic opportunities beyond traditional fishing practices can support better fisheries management and reduce overreliance on marine resources (Asiedu & Nunoo, 2013; BA et al., 2024). Integrating the Blue Economy concept into livelihood strategies promotes alternative economic activities that align with marine conservation. One effective approach is the development of marine-based tourism, such as water sports activities, including kayaking and snorkeling. These initiatives not only generate additional income but also foster a sustainable relationship between tourism and environmental conservation.

Many local communities in Pangkor Island have already diversified their livelihoods, engaging in eco-tourism, fish processing, and tourism-related services. Informants noted that alternative livelihood opportunities are beneficial to local stakeholders, such as boat operators, by allowing them to integrate conservation efforts into their business models. For example, guided eco-tours help raise awareness about marine biodiversity and responsible tourism practices. The following verbatim feedback from informants illustrates these developments

> *"…. The majority of Pulau Pangkor's residents are sailors and fishermen, with fishing being their primary source of livelihood. Therefore, the concept of the Blue Economy is naturally integrated into the existing livelihood strategies of the Pulau*

*Pangkor community, including water sports activities and street vendors near the island's tourist spots. This alternative livelihood enhances their income…." **(LA1: Government)***

*"…What I've observed so far is mainly small-scale fishermen also involved in water activities, such as boatmen…." **(BP3: Tourism Business Operators)***

*"…boatmen who offer water activities also provide eco-friendly tours that highlight the island's marine biodiversity and conservation efforts. They advise tourists not to overfeed the fish in order to help preserve the ecosystem…." **(C1: Community)***

Overall, declining fish catches have pushed small-scale fishers on Pangkor Island to seek alternative livelihoods. Integrating the Blue Economy concept supports this shift by promoting marine-based tourism such as snorkelling, kayaking, and eco-tours. These activities offer additional income while encouraging marine conservation. Informants highlighted that fishers now work as boat operators and tour guides, blending economic needs with environmental awareness which contributes benefiting both local communities and long-term sustainability of marine resources.

4.5.3.3 Climate Change Adaptation and Resilience

The Pangkor Island community is increasingly vulnerable to the effects of climate change, including rising sea levels and coastal erosion. Addressing these challenges is essential for maintaining marine ecosystem integrity and ensuring the sustainability of fisheries and alternative livelihoods. One key adaptation measure is coastal protection through ecosystem restoration. Healthy coral reefs act as natural barriers against wave energy and storm surges, reducing coastal erosion and protecting shorelines from extreme weather events (Ferrario et al., 2014). Additionally, by restoring degraded habitats, local communities can strengthen ecosystem resilience while securing long-term economic benefits from sustainable tourism and fisheries. Efforts to mitigate climate change impacts also involve proactive measures, such as the

regulation of marine activities during extreme weather conditions. Informants emphasized the importance of integrating climate adaptation strategies with economic sustainability:

> *"…. Pangkor is sheltered from monsoon winds, so it doesn't experience severe large waves like other states do. However, when the tide rises, red flags are raised to stop all water activities for safety reasons. During these times, it may slightly affect income…. "****(LA3: Government)***

> *"…. At our current snorkeling spot, we aim to restore the corals by replanting them and helping them recover. As boatmen, we also raise awareness among visitors about the importance of coral reefs …"* ***(C1: Community)***

Overall, the Pangkor Island community faces growing climate change threats, such as rising sea levels and coastal erosion. Adaptation efforts focus on ecosystem restoration, especially coral reef rehabilitation, to protect shorelines and support sustainable tourism and fisheries. Informants highlighted practices like regulating marine activities during extreme weather and promoting coral conservation. These strategies not only enhance community resilience but also align economic sustainability with environmental protection through climate-conscious livelihood approaches.

4.5.3.4 Section Summary

The findings in this section emphasize the importance of integrating sustainable practices within the fisheries sector, particularly through the Blue Economy framework, to safeguard marine resources and support local livelihoods on Pangkor Island. Fishing remains a vital income source, but overfishing, unregulated trawling, and foreign fishing activities are depleting fish stocks and impacting small-scale fishers. Informants stressed the need for stricter enforcement, equitable resource access, and ecosystem conservation. Sustainable fisheries management must involve marine habitat protection and regulation of fishing activities to ensure long-term viability. In response to declining fish stocks, many fishers have diversified their income through alternative livelihoods,

especially marine-based tourism. Activities such as snorkelling, kayaking, and eco-tours offer both financial benefits and promote marine conservation. These alternatives help reduce dependence on fisheries while supporting environmental education and sustainable tourism. Additionally, climate change adaptation is increasingly crucial, with the community facing coastal erosion and rising sea levels. Informants highlighted initiatives like coral reef restoration and temporary cessation of marine activities during extreme weather to ensure safety and ecosystem resilience. Overall, integrating sustainable fisheries, alternative livelihoods, and climate resilience under the Blue Economy concept supports environmental protection, economic stability, and long-term community well-being.

4.5.4 Specific Livelihood Outcomes to Achieve Through the Proposed Multi-Livelihood Strategy Based on the Blue Economy Concept (RQ 3.4)

When considering the livelihood outcomes hoped to be achieved through integrating the Blue Economy concept, three key subthemes emerge: **(i) Environmental conservation (ii) Enhanced social well-being (iii) Job Creation and Employment Opportunities**. Environmental conservation aims to ensure that economic activities contribute positively to the health and sustainability of marine ecosystems, reducing pollution, preserving biodiversity, and promoting responsible resource management. This outcome supports the long-term viability of natural resources, which is crucial for the continued success of livelihood strategies dependent on marine and coastal environments.

Improved social well-being focuses on enhancing the quality of life for local communities by creating job opportunities, fostering economic stability, and supporting community development. By achieving these outcomes, the integration of the Blue Economy concept not only ensures that environmental health is maintained but also that local populations benefit from increased economic opportunities and better living conditions. These dual objectives highlight the potential of the Blue Economy to create a balanced and sustainable approach to economic development. Figure 4.27 below presents the project map and comprehensive elucidation.

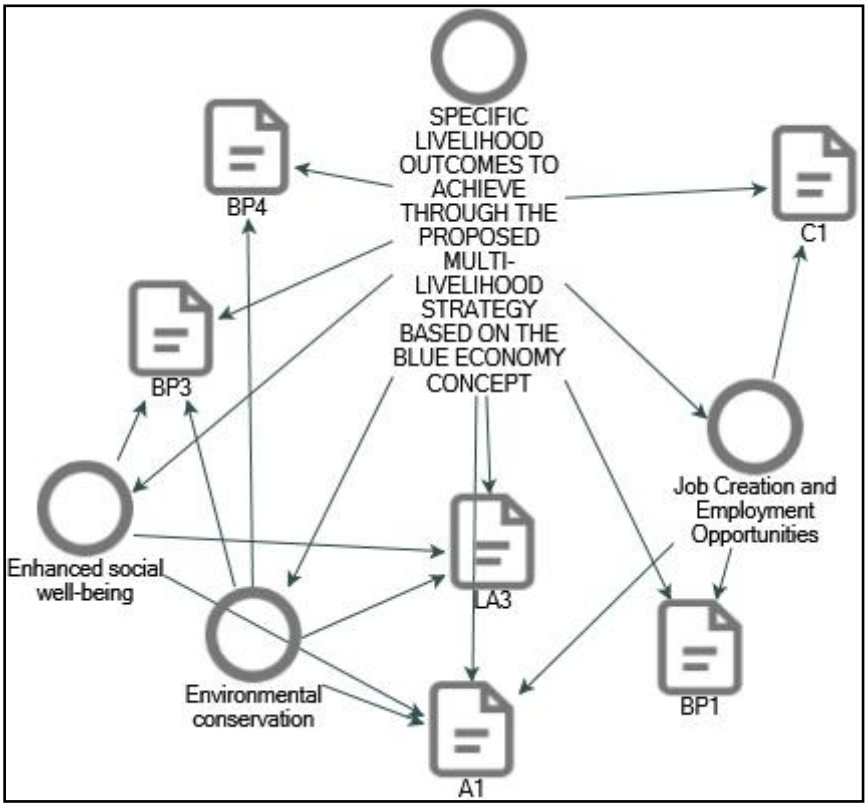


Figure 4.27 Project Map of the Specific Livelihood Outcomes to Achieve Through the Proposed Multi-Livelihood Strategy Based on the Blue Economy Concept
Source: Researcher

4.5.4.1 Environmental Conservation

The findings highlight that the desired livelihood outcomes in the context of environmental conservation are closely tied to livelihood diversification and community empowerment. By promoting sustainable seafood practices and encouraging the sale of eco-friendly souvenirs, communities can reduce their dependence on single-resource activities and mitigate environmental degradation. This approach not only helps preserve marine ecosystems but also provides alternative income sources aligned with conservation goals. Additionally, tourism business operators emphasized the importance of preserving the island's unique environment and maintaining turtle conservation efforts, as these initiatives play a crucial role in enhancing social well-being. Active engagement in conservation allows communities to protect their natural heritage, sustain their environment for future generations, and cultivate a sense of pride and connection to their cultural and natural resources.

Ultimately, these efforts contribute to improved social well-being and a higher quality of life.

> *"…. Preserve the conservation of existing marine resources. The municipal council could assess the primary objectives of development projects and explore ways to enhance the local economy, particularly for small-scale fishers…"* ***(BP3: Tourism Business Operators)***

Moreover, integrating conservation into livelihood strategies ensures a balance between economic growth and environmental stewardship, leading to the long-term sustainability of natural resources. Research suggests that incorporating marine resource management into tourism can enhance fish stocks while simultaneously generating revenue for conservation efforts (Khater & Faik., 2024).

> *"…Some potential desired livelihood outcomes include, di diversification of livelihoods, sustainable tourism development like more toward environmental conservation as the island is already pack with development, sustainable management of marine as well as community empowerment…."* ***(A1: Academia)***

However, findings indicate shortcomings in managing sea turtle conservation, possibly due to a lack of coordination or inadequate resource allocation. Ineffective management often arises when shifts in responsibility disrupt ongoing programs or when new stakeholders fail to align with established conservation goals (Campbell, 2020).

> *"…. The conservation of sea turtles has not been effective since the management responsibility shifted to the new party, as there appears to be a lack of consistent monitoring, enforcement, and community engagement efforts…"* ***(BP4: Tourism Business Operators)***

Overall, findings discover that environmental conservation on Pangkor Island is closely linked to livelihood diversification and community empowerment. Promoting sustainable seafood, eco-friendly souvenirs, and turtle conservation supports both environmental goals and alternative incomes. Tourism operators and locals emphasized preserving natural resources and enhancing marine conservation. However, gaps in sea turtle conservation management were noted. Integrating conservation into livelihoods fosters environmental stewardship, economic sustainability, and long-term social well-being for the community.

4.5.4.2 Enhanced Social Well-Being.

The interview findings suggest that the desired livelihood outcomes for improved social well-being focus on community health and the sustainability of local resources. Ensuring the preservation of fish stocks and effective management of fishing quotas are crucial to securing long-term resource availability, thereby supporting economic stability and food security. These measures foster resilience among residents, contributing to a healthier, more cohesive community. For Pangkor Island, the multi-livelihood strategy within the Blue Economy framework presents opportunities for income diversification, particularly through marine-based activities. Additionally, skill development is intrinsically linked to improved social well-being, as it enhances employability and strengthens community resilience. Consequently, communities experience a better quality of life, reduced vulnerability to external economic shocks, and increased social cohesion.

> *"…. The Manjung Municipal Council, as the local authority, has also been actively initiating a comprehensive development plan through the Pulau Pangkor Special Area Plan (RKK Pangkor) and the pillars focuses on an Inclusive and Vibrant Island Economy, Quality of Life and Community Well-being, and the Conservation of Natural Resources…."* ***(LA3: Government)***

Community empowerment is integral to these outcomes, as it enables local populations to actively participate in and benefit from conservation efforts. Empowered communities engage in sustainable seafood harvesting, responsible tourism, and other initiatives that contribute to both environmental protection and economic resilience. Institutional strengthening and capacity-building programs play a vital role in supporting these efforts by equipping locals with the necessary skills to engage in sustainable livelihoods and develop alternative income streams. Furthermore, fostering collaboration between communities and government agencies in managing fisheries and conservation initiatives ensures that local knowledge is incorporated into decision-making processes, promoting sustainability.

> *"…. The strategy also outlines the provision of skills training to ensure the community sustainability including related economic such as souvenir, marine based etc, courses, enforcement, and other related initiative…"* ***(A1: Academia)***

Overall, the findings show that enhanced social well-being on Pangkor Island is linked to sustainable resource management, income diversification, and community empowerment. Through multi-livelihood strategies and skills training, locals improve their employability and resilience. Effective collaboration with authorities and inclusion in planning efforts like the RKK Pangkor promote inclusive development. Community-driven conservation and sustainable practices strengthen social cohesion, reduce vulnerabilities, and enhance overall quality of life for island residents.

4.5.4.3 Job Creation and Employment Opportunities

The study findings indicate that sustainable ocean-related economic activities present significant opportunities for job creation and employment on Pangkor Island. Due to its unique seasonality and protection from monsoon winds, the island has the potential to support a diverse range of employment opportunities, spanning from traditional fishing to eco-tourism ventures. Coastal tourism, in particular, has been identified as a key driver of economic growth, providing local communities with increased income, especially as demand continues to rise. Many residents engage in

multiple jobs, leveraging marine and ocean resources to mitigate economic challenges and improve their livelihoods.

> *"…. Fishermen can also work as boatmen or venture into tourism-related businesses, and vice versa. The ocean offers diverse resources that can create multiple livelihood opportunities for us, helping to support our income and sustainability…."* ***(C1: Community)***

Furthermore, tourism business operators highlighted the need for workforce development through education and training. Equipping locals with the necessary skills to participate in emerging sectors is essential for maximizing employment potential. Collaboration between private entities and government agencies is also critical in fostering inclusive employment opportunities, particularly within the Blue Economy framework.

> *"….Pangkor is a producer of anchovies, salted fish, and other seafood products on a global scale. This creates diverse income and job opportunities to the local people…."* ***(BP4: Tourism Business Operators)***

By strategically developing sustainable economic activities and integrating environmental conservation into employment opportunities, Pangkor Island can ensure long-term economic stability while preserving its natural resources for future generations. Overall, the findings highlight that sustainable ocean-based activities significantly contribute to job creation and economic resilience on Pangkor Island. With its favorable conditions and growing coastal tourism, locals engage in diverse income-generating roles, from fishing to tourism services. Skill development and collaboration between stakeholders are vital to support this growth. Emphasizing sustainable practices ensures long-term employment, economic stability, and environmental preservation, aligning with the goals of the Blue Economy framework.

4.5.4.4 Section Summary

The findings reveal that environmental conservation on Pangkor Island is closely connected to diversified livelihoods and stronger community roles. Locals are increasingly adopting sustainable practices like eco-friendly seafood and souvenirs not only to protect the environment but also to create alternative income sources. This blend of conservation and income generation fosters a deeper connection to natural resources while strengthening the island's social well-being. Tourism players also recognize the importance of preserving Pangkor's natural beauty, especially through efforts like sea turtle conservation. However, challenges remain particularly with turtle conservation, where recent changes in management have led to poor enforcement and lack of community involvement. Despite these gaps, integrating environmental efforts into everyday livelihoods helps protect marine ecosystems and supports long-term sustainability. Informants believe that striking this balance between income and conservation not only uplifts the community economically but also preserves Pangkor's ecological legacy for future generations, fostering pride, stability, and a higher quality of life.

4.5.5 The Proposed Multi-Livelihood Strategy Influencing the Economic and Social Well-Being of the Community, As Well As the Sustainability of Tourism Operations (RQ 3.5)

The proposed multi-livelihood strategy is designed to enhance both economic and social well-being by diversifying income sources and promoting sustainable practices. **Economic and social well-being** is significantly impacted by integrating various livelihood activities, such as ***(1) expanding tourism-related businesses, (2) enhancing financial stability,*** and ***(3) increasing local production***. These strategies aim to boost local economies, create job opportunities, and provide financial stability for residents.

Similarly, sustainable tourism operations play a crucial role in ensuring long-term social benefits. By focusing on ***(1) eco-friendly practices, (2) promoting responsible tourism****, and* ***(3) supporting local initiatives***, the strategy helps preserve the island's natural resources while enhancing the quality of life for residents. This

balanced approach not only fosters economic growth but also strengthens community resilience and environmental stewardship Figure 4.28 below presents the project map and comprehensive elucidation.

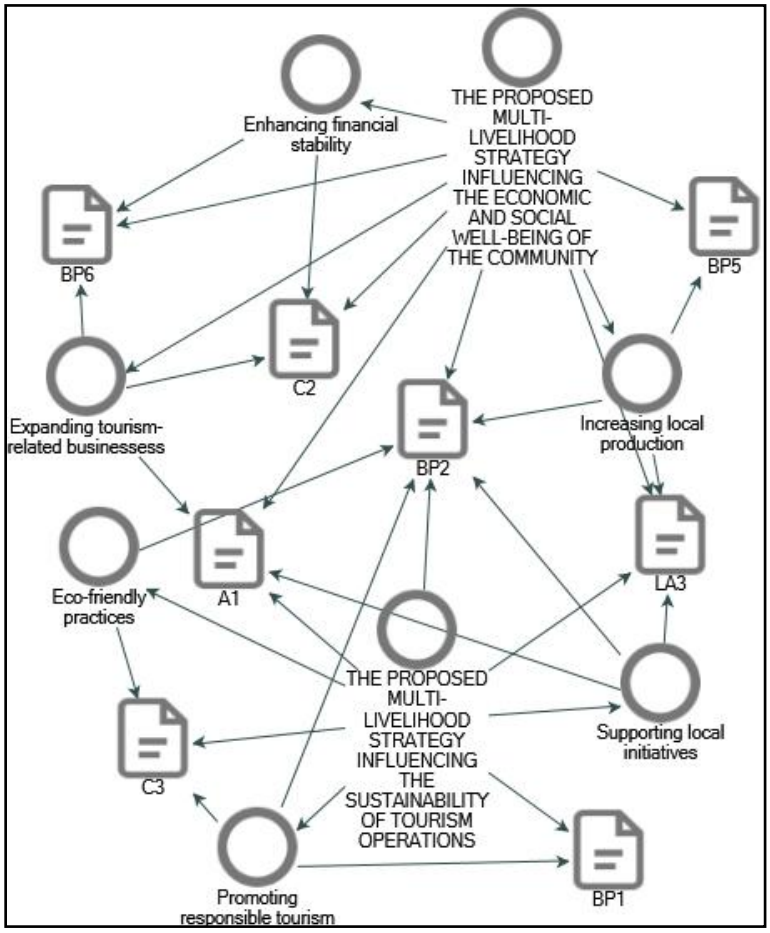


Figure 4.28 Project Map of the Multi-livelihood Strategies Influencing the Economic and Social Well-being of the Community As Well As the Sustainability of Tourism Operations
Source: Researcher

4.5.5.1 Economic and Social Well-Being

The proposed multi-livelihood strategy significantly enhances both economic and social well-being by fostering a more dynamic and competitive local economy such as (1) **expanding tourism-related businesses.** By diversifying income sources and integrating various livelihood activities, the strategy positively influences the island's economic landscape. Traditional livelihoods like fishing are integrated with emerging tourism opportunities, creating a more resilient economic structure and reducing

dependency on a single industry. The influx of tourists contributes to greater community engagement and the expansion of local skill sets, particularly entrepreneurial skills. As expressed by the informants:

> *"…With the emergence of new job opportunities brought by the growing tourism sector, our community now has access to more diverse and sustainable sources of income, reducing our dependence on traditional livelihoods and improving overall economic stability. …"* ***(C2: Community)***

> *"…Diversifying our livelihoods into tourism-related activities, like running homestays and guided tours, has given us a stable income even during the off-season for fishing…."* ***(BP6: Tourism Business Operators)***

Moreover, this diversification ***(2) enhances financial stability*** for residents and improves the local economy's overall competitiveness, making the island more attractive to investors and tourists alike. The strategy also bolsters the island's image and reputation, contributing to a flourishing tourism industry.

> *"… It enhances the image and tourism industry of Pangkor Island by incorporating all elements of tourism assets such as natural attractions, activities and their local production…"* ***(LA1: Government)***

Improved economic conditions increase the island's visibility and appeal, attracting more visitors and stimulating local commerce, particularly in ***(3) increasing local production***. Local communities have expanded their businesses to include local-oriented initiatives such as seafood production, souvenir crafting like puffer fish artifacts, and homestays. This fosters local pride and offers opportunities for cultural exchange, strengthening the community's economic fabric and ensuring long-term growth and sustainability.

> *"…perhaps in terms of Pangkor's image itself like bring up the local culture and product so it could help improve Pangkor's*

competitiveness and set it apart from other islands…." ***(BP5: Tourism Business Operators)***

Overall, the findings highlight that the proposed multi-livelihood strategy significantly enhances both economic and social well-being by promoting income diversification through tourism-related businesses, local production, and cultural initiatives. By integrating traditional livelihoods such as fishing with emerging sectors like eco-tourism and homestays, the strategy strengthens community resilience and reduces dependency on a single source of income. This leads to greater financial stability, expanded employment opportunities, and improved entrepreneurial skills among residents. Additionally, the strategy enhances Pangkor Island's competitiveness and visibility, attracting more tourists and investors. It also fosters cultural pride, community engagement, and sustainable economic growth while preserving the island's local identity.

4.5.5.2 Sustainable Tourism Operations

The multi-livelihood strategy also emphasizes sustainable tourism operations as essential to enhancing economic and social well-being. Prioritizing sustainability in tourism practices, such as ***(1) eco-friendly practices***, is crucial to minimizing environmental impact. Informants noted that waste management, supported by local councils and initiated by hotel operators, is vital in preventing environmental degradation in tourist areas. Additionally, the introduction of electric vans signifies a commitment to sustainable transportation.

> *"…The introduction of electric vans is a promising step forward. It shows a real commitment to sustainable transportation and reducing our carbon footprint on the island…."* ***(C3: Community)***

Integrating eco-friendly practices not only protects the environment but also enriches travelers' experiences. By ***(2) promoting responsible tourism***, the strategy supports long-term economic growth and attracts environmentally conscious tourists.

Community-based tourism initiatives allow tourists to engage with locals and learn their ways of life, enhancing cultural understanding.

> *"…. We should create a tourism sector that is not only profitable but also inclusive, benefiting both tourist and the local people in the long term**…" (BP1: Tourism Business Operators)***

> *"…. Establishing a cooperative among operators has helped unify sustainability efforts, but not everyone is equally invested in the approach…." **(BP2: Tourism Business Operators)***

Informants highlighted that local operators should promote and maintain local identity, fostering responsible tourism that encourages tourists to respect and understand the local culture. By ***(3) supporting local initiatives***, tourism activities contribute positively to the environment and community. Initiatives such as preserving local crafts like puffer fish art and promoting cuisine like 'laksa Pangkor' strengthen cultural identity and provide tourists with unique, authentic experiences.

> *"…. Promoting local delicacies such as 'laksa Pangkor' allows us to showcase our heritage to visitors and creates a deeper connection between them and our way of life…." **(BP2: Tourism Business Operators)***

> *"…. Preserving local crafts like puffer fish dishes and 'laksa not only celebrates local culture but also gives tourists a truly unique experience they can't find elsewhere…" **(LA3: Government)***

Furthermore, informants from academia stressed that economic growth and community empowerment are integral to sustaining tourism operations, creating a resilient tourism sector. Effective sustainable practices foster a balanced local economy, benefiting residents and visitors while preserving the island's ecological integrity.

"…. The proposed multi-livelihood strategy based on the Blue Economy concept has the potential to positively contribute to the sustainability of tourism operations, for examples economic growth…" ***(A1: Academia)***

Overall, the findings indicate that the proposed multi-livelihood strategy on Pangkor Island significantly strengthens both economic and social well-being through income diversification and sustainable tourism development. By integrating traditional livelihoods like fishing with emerging tourism-related activities such as homestays, guided tours, and local crafts, the strategy improves financial resilience and reduces economic vulnerability. This approach fosters entrepreneurial growth, enhances skill development, and encourages cultural preservation. Additionally, it boosts Pangkor's visibility, attracting more tourists and investors. Sustainable tourism operations through eco-friendly practices, responsible tourism, and community-based initiatives further reinforce economic stability while protecting the island's natural and cultural assets. Collectively, these strategies support long-term growth, promote community empowerment, and ensure a balanced relationship between environmental conservation and economic development.

4.5.6 Challenges Anticipate in Implementing the Proposed Multi-Livelihood Strategy Through the Blue Economy Concept (RQ 3.6)

The Blue Economy concepts promote the sustainable utilization of ocean resources to drive economic growth, enhance livelihoods, and protect ecosystems health (Ahammed et al.,2024; Ayilu et al., 2023; 2024: Phelan et al., 2020; Praptiwi et al., 2021; Sharma & Sharma, 2020). While it presents valuable opportunities for diversifying livelihoods, especially in coastal and island communities, various challenges are expected in the implementation of a multi-livelihood strategy. These challenges may have a considerable impact on the effectiveness of such initiatives, particularly in areas like Pangkor Island, where local communities are highly dependent on marine resources. From the information gathered, three main themes emerged in relation to challenges anticipate in implementing the proposed multi-livelihood strategy through this concept.

Figure 4.29 below presents the project map and comprehensive elucidation.

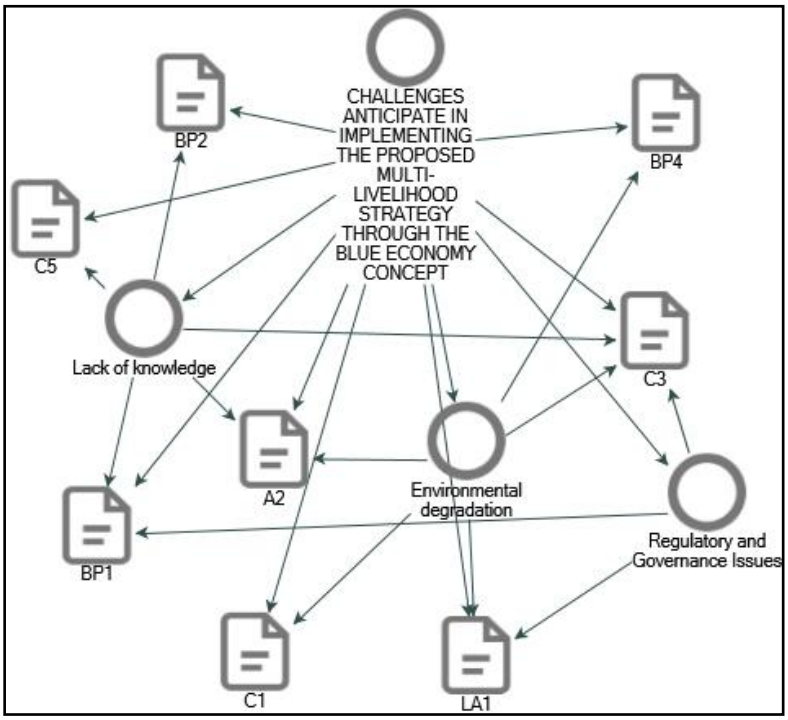


Figure 4.29 Project Map of the Challenges Anticipate In Implementing the Proposed Multi-livelihood Strategy Through Blue Economy Concept
Source: Researcher

4.5.6.1 Uncontrolled Environmental Degradation

Environmental sustainability is a core objective of the Blue Economy. However, achieving a balance between economic development and environmental conservation remains a challenge, particularly for local communities. The findings of this study indicate that one of the primary environmental concerns in implementing the Blue Economy concept is beach erosion, especially in the Teluk Nipah area which is the Pangkor's main beach attraction. Informants from the government sector highlighted that beach erosion is leading to the narrowing of the shoreline, reducing the space between the sand and the water. This poses safety risks to vendors operating in the area and affects the island's overall image as a premier tourism destination in Perak. Addressing these challenges requires proactive mitigation strategies and long-term sustainable planning.

"…. *the Council has already taken the initiative to relocate the*

affected vendors to a safer business area, namely the Teluk Nipah Bazaar Project. Additionally, the Council is also planning the development of a breakwater and the construction of a platform along the beach…." ***(LA1: Government)***

"… The issue of beach erosion has been ongoing for many years, and it continues to present a serious challenge to achieving long-term sustainability, especially in maintaining safe public spaces and preserving Pangkor's tourism appeal…." ***(C1: Community)***

Overall, the findings reveal that uncontrolled environmental degradation, particularly beach erosion in Teluk Nipah, poses a significant challenge to sustainable tourism under the Blue Economy framework. As Pangkor Island's main beach attraction, the erosion reduces shoreline space, affects vendor safety, and undermines the island's image as a tourist destination. Local authorities have initiated measures like relocating vendors and proposing infrastructure projects such as breakwaters and beach platforms. However, community members note that erosion has long been an issue, indicating the need for more proactive, long-term strategies. Balancing tourism growth with environmental conservation remains crucial for sustainable island development.

4.5.6.2 Lack of Knowledge

Another significant barrier to the successful development of the Blue Economy is the lack of knowledge and awareness among local communities. Informants emphasized that many locals are unaware of the concept's importance and its potential integration into their livelihoods. For most, generating immediate income takes precedence over long-term sustainability initiatives. To bridge this gap, targeted education and training programs are necessary to equip key community members, particularly fishermen and small business operators, with the necessary knowledge and skills. These initiatives could help them align their businesses with sustainable tourism and environmental conservation efforts.

"…The villagers may not have the expertise and knowledge,

and if they want to start something, they may only think about one aspect….." ***(C3: Tourism Community)***

"…The government should also educate and provide some incentive for the locals (Malays) to participate in tourism industry (homestays) that have minimal disruptions towards the natural environment…" …." ***(A2: Academia)***

Overall, the findings reveal that a major barrier to implementing the Blue Economy on Pangkor Island is the lack of knowledge and awareness among local communities. Many residents, especially those in traditional sectors like fishing, are unfamiliar with the Blue Economy's principles and how it can be integrated into their livelihoods. As a result, short-term income needs often outweigh long-term sustainability goals. Informants stressed the need for targeted education, awareness campaigns, and capacity-building programs to address this knowledge gap. Training initiatives should focus on key groups such as fishermen and small tourism operators, helping them adopt sustainable practices aligned with environmental conservation and responsible tourism. Empowering locals with the right knowledge and skills can foster broader community participation in sustainable tourism ventures, such as eco-friendly homestays and low-impact marine activities. Without such efforts, the full potential of the Blue Economy for long-term social, economic, and environmental well-being will remain unrealized.

4.5.6.3 Regulatory and Governance Issues

Despite the presence of various policies and initiatives aimed at promoting the Blue Economy, implementation challenges persist. Findings indicate that government frameworks often fail to incorporate the voices and interests of marginalized groups such as small-scale fishers and entrepreneurs. This exclusion can lead to conflicts and resistance to policies. An informant from the tourism sector noted that while the Blueprint Pangkor 2030 aims to enhance the island's economic prospects, the lack of coordination among regulatory bodies hinders effective implementation. Different

agencies oversee overlapping areas, leading to inconsistencies and inefficiencies in policy execution.

> *"…. When multiple agencies handle overlapping areas, it leads to conflicting instructions. This disorganization is holding us back from fully benefiting from the Blueprint Pangkor 2030's potential."* ***(BP1: Tourism Business Operators)***

Furthermore, despite Pangkor's role as a significant producer of anchovies, salted fish, and other seafood products on a global scale, the lack of integration and commitment among agencies results in contradictory policies and operational inefficiencies. Without a holistic and cohesive approach, achieving sustainable development on the island remains a challenge.

> *"… In my opinion, I see a lack of consistency in the strategy, and this affects my ability to perceive its effectiveness …."* ***(C3: Community***

Overall, the findings reveal that regulatory and governance challenges are key barriers to the effective implementation of the Blue Economy strategy on Pangkor Island. Although various government policies and initiatives, including Blueprint Pangkor 2030, aim to promote sustainable development, their execution is hampered by fragmented governance and lack of coordination among agencies. Overlapping responsibilities often lead to conflicting directives, reducing policy effectiveness, and delaying progress. Informants highlighted that small-scale fishers and local entrepreneurs are frequently excluded from decision-making processes, which creates resistance and reduces community buy-in. Furthermore, despite Pangkor's significance in global seafood production, the absence of a unified approach among authorities results in inconsistent strategies and inefficiencies. Without clear leadership, inclusive planning, and coordinated efforts across agencies, the potential of the Blue Economy remains underutilized. Addressing these governance gaps is crucial to ensuring coherent policy implementation, equitable participation, and the long-term sustainability of Pangkor Island's economy and environment.

4.5.6.4 Section Summary

This section highlights three major barriers affecting the successful implementation of the Blue Economy on Pangkor Island which are uncontrolled environmental degradation, lack of knowledge, and regulatory and governance issues. The most pressing environmental concern is beach erosion in Teluk Nipah, which compromises safety for vendors and diminishes the island's image as a prime tourist destination. Although local authorities have taken steps to mitigate the issue, such as relocating vendors and planning infrastructure improvements, the community notes that long-standing erosion problems require more proactive and sustainable strategies.

Another significant challenge is the lack of knowledge among local communities. Many residents are unfamiliar with the Blue Economy's principles and focus primarily on short-term income. Informants stressed the need for education, awareness campaigns, and training programs to equip local fishers and small operators with the skills needed for sustainable tourism and conservation efforts. Finally, governance issues such as poor inter-agency coordination and exclusion of marginalized stakeholders hinder effective policy execution. Informants emphasized that overlapping mandates and fragmented leadership have created confusion and inefficiency, preventing the full realization of the Blueprint Pangkor 2030. Without unified, inclusive, and strategic governance, achieving long-term sustainability through the Blue Economy remains a major challenge for Pangkor Island. Therefore, to conclude the findings the overall themes and research model embodied in these research questions are as follows:

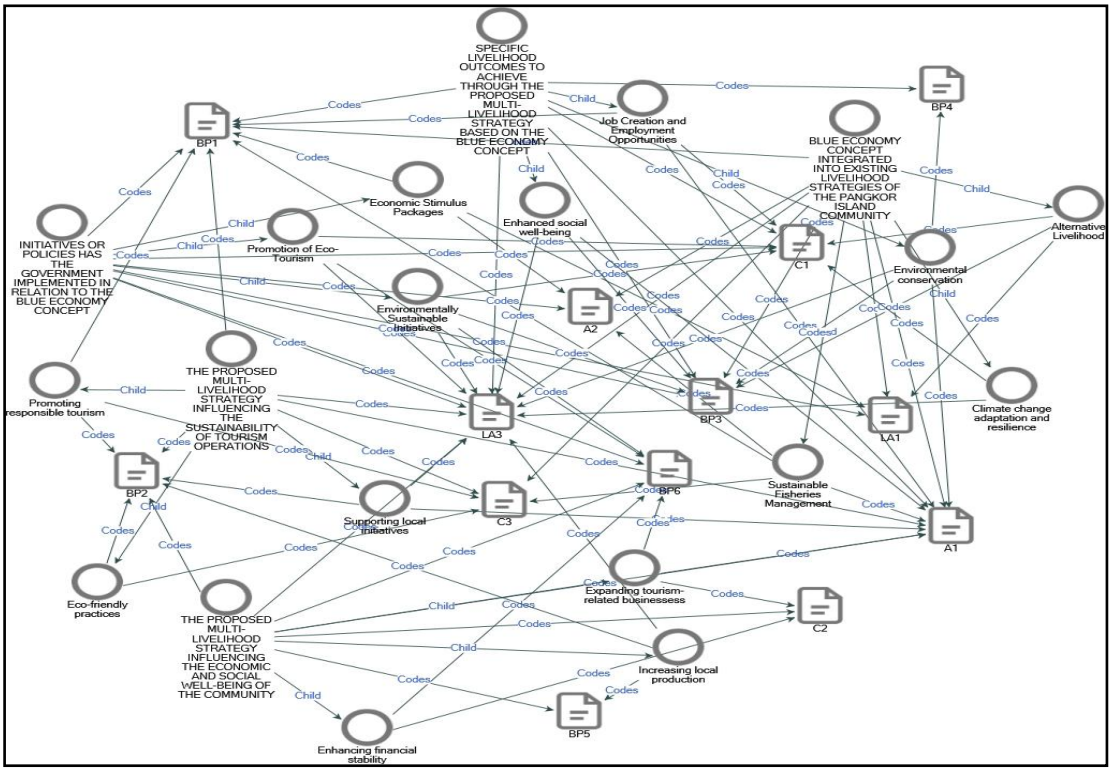


Figure 4.30 Overall Themes and Interconnected Codes for Research Questions Three
Source: Researcher

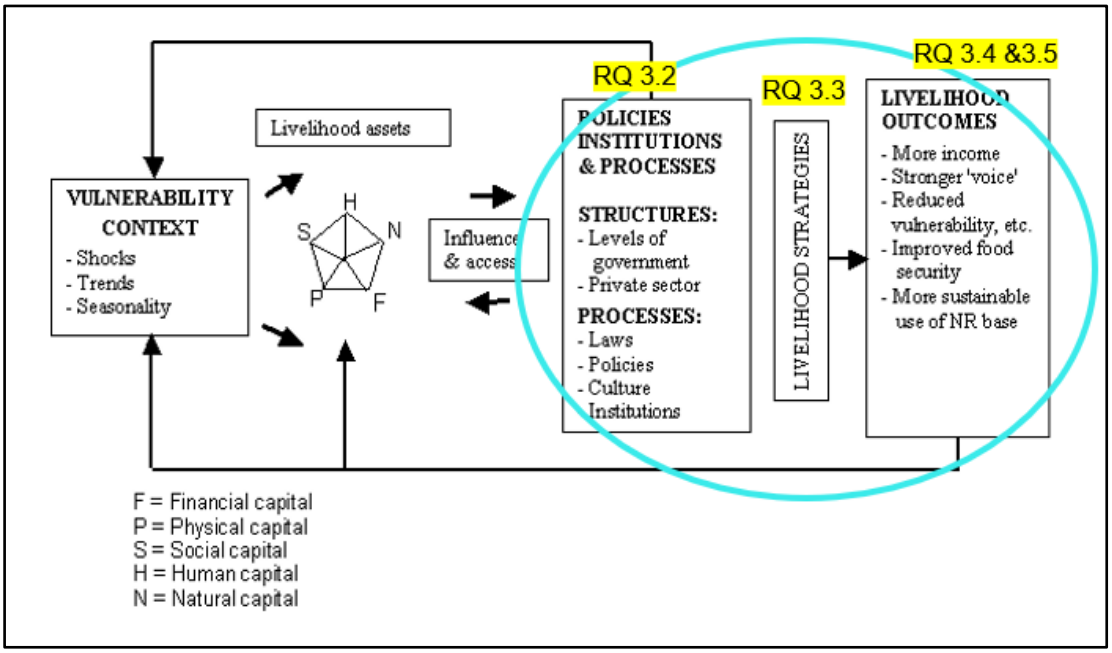


Figure 4.31 Research Model for Stakeholders' Perceptions of Multi-livelihood Strategy Through the Blue Economy Concept Enhances the Pangkor Island Community's Livelihood Strategies and Their Livelihood Outcomes
Source: Researcher

4.5.7 Chapter Summary

Chapter four presents a detailed analysis of how tourism development and the Blue Economy framework influence the livelihoods of Pangkor Island's communities. Drawing insights from stakeholders including government officials, tourism operators, community members, and academics, the findings explore both the positive and challenging aspects of tourism-led growth. The chapter reveals that while infrastructure development and duty-free status have enhanced local facilities, income opportunities, and visitor arrivals, concerns remain over environmental degradation, imbalanced development, and seasonal economic fluctuations. Key livelihood assets such as natural resources, social cohesion, financial access, and human capital are all significantly impacted by tourism policies. The study emphasizes the potential of a multi-livelihood strategy that incorporates sustainable tourism, environmental conservation, and skill development. However, challenges such as lack of community knowledge, inconsistent governance, and unregulated development hinder long-term sustainability. Stakeholders advocate for inclusive, community-driven policies that balance economic goals with ecological preservation. Overall, the findings highlight the importance of integrating traditional livelihoods like fishing with new opportunities in tourism, supported by improved education, digital tools, and institutional coordination. To ensure the resilience of Pangkor Island's economy and environment, a collaborative approach involving all stakeholders is essential for achieving inclusive, sustainable development.

CHAPTER 5
DISCUSSION AND CONCLUSIONS

5.1 Preamble

This chapter focuses on the study's discussion, implications, and conclusion. The chapter opens with a brief flashback summarizing the analysis. It then proceeds to discuss the results and findings in relation to the research objectives and questions. Afterward, the recognized limitations and recommendations for future research are addressed. The theoretical and practical implications of the findings are thoroughly explored, concluding with final remarks.

5.2 Summary of Analyses

The objective of the study was to develop a comprehensive sustainable livelihood framework for small island tourism projects in the context of marine and coastal destinations in Pangkor Island, Malaysia through the Blue Economy concept. Five sub-questions were applied in addressing the study's first research questions. The details of the research questions, objective and sub-questions are shown in Table 5.1

Table 5.1
Recapitulation of Research Objective One

Research Objective 1	Research Question 1
To explore stakeholders' perspectives of how current tourism development policy on Pangkor island affect the island's community livelihood assets	What are the stakeholders' perceptions of how the current tourism development policy on Pangkor Island affect the island's community livelihood assets?
SQ 1 How would you describe the current state of tourism development on Pangkor Island?	

SQ 2 What impacts have you observed in tourism development over the past few years?

SQ3 What are the key livelihood assets within the local community on Pangkor Island*?*

SQ4 How have these community assets been influences by tourism development policies?

SQ5 How there been any notable challenges or opportunities for tourism community as a result of the policies?

The interpretation was undertaken in Section 4.4.1 of Chapter Four in response to this research question, and its sub-sections are reviewed. The analysis not only identified patterns in stakeholder perspectives but also systematically integrated them with the SLF to ensure that theoretical grounding was explicit. SQ1 generally views the current state of tourism on Pangkor Islands according to stakeholder perspective. Based on the interpretation, it indicates both positive and negative impacts, reflecting a complex interplay of modernization and preservation challenges. On the other hands, the current tourism development policy on Pangkor Island has led to new facilities and infrastructure development and progress but also presents challenges such as environmental degradation, imbalanced development, and demand change. These directly address the current state of tourism development on Pangkor Island and highlight the tension between economic expansion and sustainable resource use. From the SLF perspective, this indicates pressures on natural and social assets, while the Blue Economy lens highlights the need to align economic growth with long-term ecological stewardship. These observations align with the literature on tourism development in Malaysia, where rapid infrastructure growth increased tourist demand have been observed (Tourism Malaysia, 2021). The imbalanced growth observed on Pangkor Island is consistent with challenges widely discussed in the tourism literature. Previous studies, such as Andereck et al. (2005) and Cheer et al. (2019), have highlighted how tourism growth in various destinations can contribute to socio-economic disparities and cultural shifts, particularly when development is uneven or insufficiently regulated. This suggests a need for balanced tourism strategies to ensure sustainable development. Furthermore, studies on marine and coastal tourism highlight the potential for economic growth alongside environmental and social challenges (Mulyawati et al., 2023; Rangel-

Buitrago et al., 2019). This patter is reflected in Pangkor's development of tourism-related infrastructure, which strengthens local businesses but simultaneously raises concerns over ecological sustainability and community well-being. The complex dynamics of tourism's socio-economic and environmental impacts echo the findings of Tegar and Gurning (2018), who stressed the importance of sustainable management practices in coastal destinations. These insights highlight the importance of implementing strategies and inclusive tourism policies to balance economic benefits with environmental preservation and social equity.

SQ2 examines the changes in tourism development on Pangkor Island, particularly regarding facilities and infrastructure, economic impacts, environmental impact, and human capital improvements. The findings indicate significant infrastructure advancements and economic growth, consistent with Malaysia's tourism trends as noted by UNWTO (2023). These changes have enhanced accessibility, supported local businesses, and created new opportunities, especially following Pangkor's designation as a duty-free island (Northern Corridor Economic Region, 2022). However, alongside these benefits, significant environmental challenges have emerged including coastal erosion, pollution, and resource depletion. These concerns reflect Cheng et al. (2013), Munro et al. (2019) and Su et al. (2019) who emphasized the ecological vulnerabilities of coastal destinations and the need for sustainable practices to mitigate environmental stress. This highlights a critical tension between tourism driven economic growth and long-term ecological sustainability, which turn threatens local livelihoods and the resilience of island communities. Moreover, in term of human capital, the findings indicate improvements in skills development and capacity building, aligning with Kunjuruman (2022) and Masud et al. (2016) who emphasized the importance of human capital in enhancing community resilience and economic stability in tourism-dependent communities. Nevertheless, the lack of adequate training and education opportunities remains a barrier to maximizing the local workforce's potential, reflecting the gaps identified by Su et al. (2016) and Aazami & Shanazi (2020). The analysis demonstrates that while infrastructure growth and economic opportunities have benefited the community, unresolved environmental pressures and inadequate human capital development reveal the need for more balanced and inclusive tourism policies.

SQ3 identifies and discusses the key livelihood assets within the local community, including natural, financial, physical, social, and human assets. The findings indicate that these assets are central to community resilience and economic stability, consistent with the Sustainable Livelihoods Framework (Scoones, 1998). Natural assets, including marine resources and coastal ecosystems, are crucial for supporting fishing, tourism, and cultural heritage on Pangkor Island. These assets contribute to economic stability and food security, as highlighted by Kaur (2020) and Sulaiman et al. (2017). However, the growing tourism demand raises environmental challenges such as pollution and resource depletion, echoing the concerns raised by Fabinyi (2010) and Munro et al. (2019). Financial assets, including income from tourism and fisheries, play a pivotal role in enhancing community resilience. The findings align with Porter et al. (2015) and Kimbu et al. (2022), who highlighted the importance of tourism as an alternative source of income in coastal communities. Nonetheless, economic dependency on tourism necessitates income diversification to mitigate risks associated with market fluctuations and seasonality (Su et al., 2019). Physical assets, such as infrastructure and facilities, have improved due to tourism development, enhancing connectivity and service delivery on Pangkor Island. This is consistent with Malaysia's National Tourism Policy 2020-2030, which emphasizes infrastructure development to support sustainable tourism growth (Northern Corridor Economic Region, 2022. Nevertheless, imbalanced development may lead to social disparities, as noted by Cheer et al. (2019). Social and human assets are vital for community cohesion, cultural preservation, and workforce development. Community engagement and participation in tourism initiatives enhance social capital, fostering community solidarity and cultural identity (Kunjuraman, 2022). Additionally, capacity building through education and skills training contributes to human capital development, supporting adaptive strategies to tourism dynamics (Masud et al., 2016; Kaur, 2020). These findings highlight the importance of leveraging community assets to achieve sustainable livelihoods while balancing economic, social, and environmental sustainability.

SQ4 analyzes the influence of tourism development policies on community assets, emphasizing natural resource sustainability, financial diversification, physical infrastructure development, social well-being, human capacity building, and technology adoption. The findings reveal both positive and negative policy impacts, which are

consistent with the challenges identified by Fabinyi (2010) regarding socio-cultural disruptions and economic dependencies in tourism destinations. Natural resource sustainability is a key consideration in tourism policies, as highlighted by the Blue Economy framework, which advocates for the sustainable use of marine and coastal resources (Tegar & Gurning, 2018). In Pangkor Island, policies promoting eco-tourism and marine conservation contribute to environmental preservation but require community engagement to ensure effective implementation (Phelan et al., 2020). The findings reveal challenges related to resource conflicts and environmental degradation, consistent with the concerns raised by Navalón-Garcia (2017) regarding the environmental fragility of island destinations. Financial diversification policies aimed at reducing economic dependency on traditional livelihoods have encouraged the growth of tourism-related businesses, including accommodation, food services, and recreational activities (Northern Corridor Economic Region, 2022). This aligns with the findings of Porter et al. (2015) and Kimbu et al. (2022), who emphasized the importance of tourism as an alternative income source in coastal communities. However, the reliance on tourism necessitates strategies to mitigate economic vulnerabilities related to seasonality and market fluctuations (Su et al., 2019). Physical infrastructure development, including transportation and public amenities, has been prioritized in tourism policies to enhance accessibility and visitor experience on Pangkor Island. This is consistent with Malaysia's tourism development strategy, which focuses on infrastructure modernization (Tourism Malaysia, 2021). Nevertheless, rapid infrastructure growth raises concerns about environmental impacts and social disparities, as noted by Cheer et al. (2019) and Andereck et al. (2005).

SQ5 discusses the challenges and opportunities for the tourism community, including environmental effects, economic dependency, marketing and promotional strategies, economic support and incentives, and income diversification. The findings are corroborated by literature highlighting similar challenges in island and coastal tourism settings (Fabinyi, 2010; Praptiwi et al., 2021). The opportunities for income diversification align with the principles of the Blue Economy (Tegar & Gurning, 2018) and sustainable tourism development (UNWTO, 2017). These insights highlight the potential for strategic initiatives to optimize economic benefits while preserving social and environmental sustainability. Overall, the findings show that while Pangkor Island has experienced significant tourism-driven growth, it faces challenges in achieving

sustainable development. By applying the SLF, this study systematically demonstrates how tourism development and policy shifts influence various livelihood assets, thereby addressing the research questions and achieving the stated objectives. In doing so, it provides a holistic understanding of tourism's impacts on community livelihoods in Pangkor Island.

Next, three sub-questions were applied in addressing the study's second research questions. The details of the research questions, objective and sub-questions are shown in Table 5.2.

Table 5.2
Recapitulation of Research Objective Two

Research Objective 2	Research Question 2
To investigate stakeholders' perspective of the potential changes in developmental policies in support of the Pangkor Island community's livelihood strategies and their livelihood outcomes.	What are the stakeholders' perceptions of the potential changes in developmental policies in support of the Pangkor Island community's livelihood strategies and their livelihood outcomes?

SQ 1 How would you describe the current livelihood strategies within the Pangkor Island community?

SQ 2 Are there specific strategies in place to ensure sustainable community livelihood assets?

SQ3 To what extent do you believe the community should be involved in shaping developmental policies that affect their livelihoods?

The interpretation presented in Section 4.5.1 responds directly to the research question on how a multi-livelihood strategy, framed through the Blue Economy concept can enhance community livelihood outcomes in Pangkor Island. The findings are organised across the three sub-questions which collectively demonstrate how the community mobilises it assets, adapts strategies, and interacts with governance systems. These insights systematically connected to the SLF and the Blue Economy, thereby addressing research objective two. SQ1 indicates Pangkor Island's community employs a multi-

livelihood strategy, primarily engaging in tourism-related activities and traditional fishing. Based on the SLF interpretation, this reflects the mobilisation of natural assets (fisheries and marine resources) alongside financial and social assets (tourism networks and entrepreneurial ventures). In Pangkor Island, the diversification into tourism and traditional fishing illustrates how communities adapt to economic vulnerabilities, aligning with studies suggesting tourism as a viable alternative livelihood in coastal areas (Fabinyi, 2010; Porter et al., 2015). However, over-reliance on tourism exposes households to income instability due to the seasonal nature of tourism demand. During off-peak periods, reduced visitor arrivals limit business operations and employment opportunities, thereby weakening financial security among tourism-dependent households (Corluka, 2019). This aligns with studies on tourism seasonality, which emphasize the need for year-round tourism strategies and economic diversification (Su et al., 2022). To mitigate these risks, niche tourism development and improved marketing strategies are recommended to promote sustainable and inclusive economic growth (Koki, 2017; Kunjuraman, 2020).

SQ2 identifies four key strategies for sustaining livelihoods assets in Pangkor island including community-led environmental initiatives, human capital development and financial support, digital promotion, and infrastructure enhancement. These strategies reflect a comprehensive approach to sustainable livelihood development, balancing economic growth, environmental conservation, and social equity. Sustainable development initiatives demonstrate community agency in environmental stewardship, consistent with community-based tourism principles (Goodwin, 2011). However, large-scale development projects raise concerns about socio-economic and environmental consequences, necessitating stricter regulatory frameworks (Saarinen, 2020). Human capital development addresses skill gaps and empowers local entrepreneurs, supporting economic diversification and reducing dependency on tourism (Scheyvens & Biddulph, 2020). Digital promotion leverages technology to enhance community visibility, aligning with trends in digital tourism marketing (UNWTO, 2023). However, digital literacy initiatives are necessary to ensure inclusive participation, particularly among older community members (Gössling & Lane, 2022). Infrastructure development enhances visitor experiences but requires strategic spatial planning to mitigate congestion and ensure sustainable tourism growth (Hampton & Jeyacheya, 2023).

SQ3 reveals community insights enhance policy relevance and effectiveness, supporting participatory governance principles (Hampton & Jeyacheya, 2023). Transparent communication and consistent engagement are essential for building trust and ensuring policy legitimacy (Gössling & Lane, 2022). Community voices emphasize the importance of participatory decision-making, transparency, and trust-building, which link closely to the social capital dimension of the SLF (Scoones, 1998). Empowering the community through skill-building and digital literacy initiatives enhances economic resilience and supports long-term development goals (Scheyvens & Biddulph, 2020). However, achieving effective participation requires overcoming challenges related to power dynamics, cultural differences, and resource constraints. Therefore, inclusive, and adaptive governance frameworks are essential for empowering the community to shape their developmental trajectory. Overall, the findings demonstrate that Pangkor Island's community livelihoods are shaped by an interplay between assets, strategies, and governance structure. The SLF provides a lens to trace how assets are mobilised, while the Blue Economy highlights the need for sustainability, innovations, and inclusivity. By systematically connecting the findings to both frameworks, this study shows that a multi-livelihood strategy not only enhances economic and social outcomes but also supports the transition towards a more sustainable island economy.

Lastly, six sub-questions were applied in addressing the study's third research questions. The details of the research questions, objective and sub-questions are shown in Table 5.3.

Table 5.3
Recapitulation of Research Objective Three

Research Objective 3	Research Question 3
To propose multi-livelihood strategy through the Blue Economy concept in enhancing the Pangkor Island community's livelihood strategies and their livelihood outcomes.	How would multi-livelihood strategy through the Blue Economy concept enhances the Pangkor Island community's livelihood strategies and their livelihood outcomes?
SQ 1 How familiar are you with the concept of Blue Economy, especially in the context of small island communities like Pangkor?	

SQ 2 What initiatives or policies has the government implemented to support the livelihoods of Pangkor Island's community particularly in relation to the Blue Economy concept?

SQ3 From your perspective, how can the Blue Economy concept integrated into existing livelihood strategies of the Pangkor Island community?

SQ4 What specific livelihood outcomes do you hope to achieve through the proposed multi-livelihood strategy based on the Blue Economy concept?

SQ5 How do you see the proposed multi-livelihood strategy influencing the economic and social well-being of the community, as well as the sustainability of tourism operations?

SQ6 What challenges do you anticipate in implementing the proposed multi-livelihood strategy through the Blue Economy concept?

The third research question examined how the Blue Economy framework can be integrated into community livelihood strategies on Pangkor Island, with six sub-questions guiding the analysis. The interpretation presented in Section 4.6.1 link these findings to the SLF and Blue Economy principles, thereby addressing the research objective three, to evaluate the potential of Blue Economy in sustaining island livelihoods. SQ1 revealed varied level of awareness of the Blue Economy among the community. While participants recognized the importance of sustainable marine resource use through fishing and tourism, their understanding of the Blue Economy as a holistic development approach was limited. From the SLF perspective, this reflects a gap in human capital (knowledge and education), which constrains the community's ability to maximize the benefits of sustainable practices. Despite the limited awareness, participants demonstrated a willingness to explore sustainable practices if they contributed to economic benefits, which corroborates Foley et al. (2020), who suggested that communities are more likely to adopt sustainable practices when they see clear economic and social advantages. In the context of marine and coastal tourism, the Blue

Economy is identified as a catalyst for sustainable development (Praptiwi et al., 2021). It optimizes the benefits of natural resources, culture, and human capital through sustainable practices (Tegar & Gurning, 2018). In Pangkor, this is particularly relevant as the community relies heavily on marine resources for livelihoods, including traditional fishing and emerging tourism-related activities. However, the gap between policy-level discourse and grassroots practices highlights the need for targeted educational programs and community engagement to bridge the knowledge divide.

SQ2 analyze the significant role of government in supporting the livelihoods of Pangkor Island's community through economic stimulus packages through subsidies, environmentally sustainable initiatives, and the promotion of eco-tourism. Fuel subsidies and monthly allowances for artisanal fishermen were found to effectively reduce operational costs and sustain local fisheries. These interventions strengthened financial and natural capital under the SLF by reducing costs for fishermen and protecting ecosystems through turtle conservation and reef restoration. However, the findings also reveal concerns about dependency on these subsidies, echoing Sumaila et al. (2016), who argued that over-reliance on government aid could disincentivize sustainable fishing practices and hinder modernization efforts. Environmentally sustainable initiatives, such as turtle conservation and coral reef restoration, align with the Blue Economy's emphasis on protecting marine biodiversity and ensuring ecological balance (Caparros-Martinez et al., 2022). These initiatives are vital for maintaining the long-term sustainability of marine environments. However, challenges such as top-down decision-making and inconsistent policy implementation limit their effectiveness and weaken the social capital, as identified by Berkes (2009), who highlighted the importance of local knowledge and community involvement for successful conservation efforts. The promotion of eco-tourism through sustainable tourism practices aligns with the Blue Economy's principles of balancing economic growth with environmental stewardship (Phelan et al., 2020). It not only supports local livelihoods but also enhances the island's appeal as a sustainable tourism destination. However, the challenges of coordinating policies among various regulatory bodies necessitate improved governance structures for effective implementation.

SQ3 illustrates the integration of Blue Economy into existing livelihood strategies that enhances sustainability and economic resilience in coastal communities. Sustainable fisheries management, alternative livelihoods, and climate change

adaptation emerged as key themes. Sustainable fisheries management is essential for maintaining the long-term health of marine ecosystems while supporting local fishing communities. It also enhances resilience, a key Blue Economy outcome, by reducing overreliance on fisheries. However, the findings highlight challenges such as overfishing, unregulated trawling, and foreign fishing activities, which threaten local marine resources as well as weaknesses in institutional capital and governance. These challenges align with Pauly et al. (1998), who emphasized the need for stricter regulations and enforcement to prevent overexploitation. Sustainable fisheries practices also resonate with the Blue Economy's emphasis on balancing economic benefits with environmental conservation (Praptiwi et al., 2021). Alternative livelihoods, including marine-based tourism and eco-friendly tours, were found to diversify income sources and reduce overreliance on marine resources. This supports findings by Kunjuraman (2022), who argued that livelihood diversification through eco-tourism is an effective strategy for rural communities, especially in coastal areas. However, capacity-building programs are essential to equip locals with the necessary skills to fully participate in these emerging sectors. Climate change adaptation measures, such as coral restoration and sustainable coastal management, are crucial for safeguarding Pangkor Island's ecological integrity and sustaining tourism operations. These strategies align with the Blue Economy's focus on resilience and environmental stewardship (Phelan et al., 2020). Therefore, overall findings illustrate how community strategies are evolving in line with Blue Economy principles but require stronger regulatory and capacity building measures.

SQ4 highlights the desired livelihood outcomes from the multi-livelihood strategy include environmental conservation, enhanced social well-being, and job creation. Environmental conservation is closely linked to livelihood diversification and community empowerment, as sustainable seafood practices and eco-friendly tourism help preserve marine ecosystems. The integrating marine resources management into tourism can enhance fish stock and generate revenue for conservation efforts (Bennett et al. (2021). On the other hands, enhanced social well-being is achieved through income diversification, skill development, and community empowerment, leading to improved living conditions, and reduced economic vulnerability. These outcomes resonate with the Sustainable Livelihoods Framework (DFID, 1999), which emphasizes the importance of social, human, and financial capital in achieving sustainable

livelihoods. Job creation in marine-based tourism and related industries provides significant opportunities for economic growth. The findings show that the integration of traditional fishing with tourism-related businesses creates a more resilient economic structure, reducing dependency on a single industry. This is consistent with Su et al. (2019), who noted that livelihood diversity and choice are key to improving community livelihood sustainability.

SQ5 identifies the multi-livelihood strategy positively influences economic and social well-being by diversifying income sources, enhancing financial stability, and promoting sustainable tourism operations. Integrating traditional fishing with tourism-related businesses reduces dependency on a single industry, creating a more resilient economic structure. This aligns with Mapjabil et al. (2015), who emphasized the importance of livelihood diversification in small island communities. Sustainable tourism operations, including eco-friendly practices and responsible tourism, contribute to environmental conservation while enriching visitor experiences. This supports Phelan et al. (2020), who highlighted the importance of responsible tourism practices in the Blue Economy. However, cohesive community engagement and consistent sustainability practices are needed to fully realize the potential of sustainable tourism. It shows that without collective participation, the potential of the Blue Economy remains under-realized.

SQ 6 highlight challenges in implementing the multi-livelihood strategy include environmental degradation, lack of knowledge, and regulatory and governance issues. Environmental concerns such as beach erosion and pollution from increased tourism activities threaten the sustainability of marine resources, echoing concerns by Hall & Saarinen (2010). A significant knowledge gap among community members limits participation in sustainable practices, emphasizing the need for targeted education programs and capacity-building initiatives. Additionally, fragmented governance structures and inconsistent policy implementation hinder effective execution. Greater inter-agency coordination and inclusive policymaking are necessary for overcoming these challenges and ensuring long-term sustainability. The Blue Economy concept enhances livelihood strategies and outcomes on Pangkor Island by integrating sustainable practices into traditional economic activities. However, knowledge gaps, environmental challenges, and governance issues hinder its full implementation. Addressing these challenges through community engagement, capacity-building

programs, and cohesive governance structures is essential for realizing the Blue Economy's potential in fostering sustainable development and economic resilience on Pangkor Island. Overall, the six sub questions demonstrate that Pangkor Island's community livelihoods are shaped by an interplay of assets, strategies, and governance. The findings show that while there are clear opportunities for resilience through diversification and eco-tourism, structural challenges in governance and knowledge transfer must be addressed. By systematically connecting findings to theory, this section demonstrates how the research question is answered and how the research objectives are achieved.

5.3 Contributions and Implications

This section outlines the key contributions and implications derived from the study, both academically and practically. The research offers meaningful insights into the evolving dynamics between tourism development, the Blue Economy, and community livelihoods within a small island context. Theoretically, it extends existing frameworks by contextualizing them in Pangkor Island's socio-economic landscape. Practically, it provides actionable recommendations for policymakers, practitioners, and community stakeholders. These contributions aim to support more integrated, inclusive, and sustainable tourism strategies that enhance local resilience, economic diversification, and environmental stewardship, particularly in marine-based and island development settings.

5.3.1 Academic Contributions and Implications

This study offers multiple theoretical advancements through its comprehensive exploration of tourism development policy impacts, stakeholder perceptions, and Blue Economy strategies within the Sustainable Livelihood Framework (SLF). Specifically, it moves beyond descriptive application of existing frameworks by theorising how power, governance, and participation actively reshape livelihood outcomes in small island tourism contexts.

The key theoretical finding is comprehensive understanding of how domestic tourism policy interacts with the SLF components. Traditionally, the SLF is applied in

rural development contexts, emphasising how communities utilise livelihood resources such as human, social, natural, financial, and physical under the influence of vulnerabilities and institutional processes. This study advances SLF theory by incorporating a governance dimension within a small island tourism context. In doing so, the study shifts SLF from a largely asset-focused framework to one that explicitly accounts for decision-making power and institutional control as central determinants of livelihood sustainability. On Pangkor Island, the top-down nature of tourism policymaking has enhanced physical and financial capital through infrastructure investment, yet it has simultaneously eroded natural, social, and human capital. Local communities perceived diminishing control over natural resources (natural capital), limited opportunities for upgrading skills (human capital), and weakened social cohesion due to unequal distribution of tourism benefits (social capital). This led to the imbalance distribution of tourism development outcomes and demonstrates that infrastructure expansion alone does not equate to sustainable livelihood enhancement when governance remains highly centralised. By highlighting how governance structures mediate these trade-offs, the study re-conceptualises SLF as a framework in which democratic participation, inclusivity, and institutional accountability are integral to sustainable outcomes, not external factors. Without democratic participation and institutional inclusivity, tourism development risk contributing to asset erosion rather than asset building. Moreover, it contributes to tourism policy literature by demonstrating that development policies must be contextually aligned with community capacities and institutional legitimacy to achieve sustainable livelihoods.

Furthermore, this research highlights the intersection between tourism governance and livelihood vulnerability, adding a critical layer of analysis to the SLF by showing how top-down tourism planning can intensify community marginalisation, particularly in resource-dependent island communities. This contribution advances vulnerability theory within SLF by demonstrating that vulnerability is not only driven by external shocks, but also by institutional arrangements and exclusionary governance processes. While infrastructure expansion has delivered gains in physical and financial capital, the absence of meaningful local participation in governance processes has limited the community's agency in shaping development trajectories. This asymmetry creates a vulnerability pathway in which communities become passive recipients of policy outcomes rather than active stakeholders in defining their livelihood futures. By

positioning local agency and participatory governances as central elements within the SLF, the study reconfigures the framework to show all five livelihood capitals are shapes not only by external institutional structures but also by the degree of community involvement in decision-making. Without participatory mechanism, natural capital risks being exploited without community safeguards, human capital is eroded as equal benefits fuel tensions and weaken cohesion. Conversely, when governance integrates democratic participation, inclusivity, and accountability, communities are empowered to negotiate trade-offs, protect critical resources, and equitably distribute benefits, thereby ensuring that the SLF operates such as a genuinely sustainable framework. The local perceptions explored in this study reveal a persistent power imbalance, with tourism is largely viewed as a state-directed economic agenda rather than a community-centred development pathway. This insight refines the SLF to explicitly integrating governance dimensions such as institutional accountability, local decision-making power, and inclusive policymaking as essential foundations for achieving sustainable tourism outcomes. Drawing on stakeholders' experiential knowledge, this study provides a theoretical lens to re-conceptualise sustainable tourism development within island ecosystems. By drawing on stakeholders' experiential knowledge, the study offers an alternative to dominant neoliberal approaches by advancing a right based and inclusive framework that emphasises equity and resilience in the distribution and accessibility of livelihood assets. In doing so, it extends the SLF literature and contributes to theoretical debates in tourism studies that promote inclusive, community-led development in peripheral island contexts.

Next, this study contributes to theoretical refinement in stakeholder theory and participatory governance. Existing stakeholder theory focuses on stakeholder identification, salience, and influence, often within corporate or organisational contexts. In contrast, this study positions stakeholder theory within a multi-level tourism governance structure, including groups and individuals directly connected to the island's tourism development. This shift expands stakeholder theory beyond firm-centric analysis to account for spatial, institutional, and livelihood-based interdependencies in tourism destinations. These include government agencies and local authorities responsible for policymaking and enforcement, tourism operators and business owners who drive the island's economic activities and local residents whose livelihoods depend on tourism. By recognising the diverse roles, capacities and power

relations of stakeholders, the study demonstrates how participatory governance requires balancing state-led directives with local agency to achieve sustainable tourism outcomes. The findings reveal that stakeholder legitimacy and voice are shaped not only by their power or urgency, but also by their position within socio-political institutions. The Pangkor Island case shows how overlapping mandates, inconsistent policies, and poor inter-agency communication hinder affective tourism planning. The study reconceptualises stakeholders' engagement as a dynamic, iterative process embedded within both formal (government agencies, local authorities and tourism association) and informal institutional networks (family network, and informal business collaborations) challenging the linear, top-down models often assumed in policymaking. By integrating SLF with participatory governance theory, the research reframes policy environments as evolving, negotiated processes rather than static backdrops to livelihood strategies. It also contributes to critical institutionalism by revealing how local networks and civil society organisations act as informal yet influential agents of change. The proposed hybrid governance model combines decentralisation, capacity building, and cross-level resource sharing and offers a more adaptive and responsive framework for peripheral island contexts. These findings also call for a shift in tourism development theory from planning-centric to learning-centric approaches, where reflexivity, resilience, and co- serve as the foundation for policy transformation. The emergence of adaptive policymaking in stakeholders' narratives reveals a collective learning process in which communities, authorities, and other actors adjust strategies based on feedback and experience. For peripheral island destinations such as Pangkor, this shift is especially critical as it empowers communities to become active co-designers of development pathways rather than passive recipients of externally imposed plans. This approach aligns with recent theories in governance that emphasise reflexivity, resilience, and co-creation. Overall, the results offer a substantial theoretical contribution by bridging stakeholder theory, participatory governance, and SLF in the context of tourism policy reform and livelihood sustainability.

This study's third key contribution focuses on how context-specific power structures shape policy outcomes and highlights the critical role of community as stakeholders. While participation is often idealised in development rhetoric, this study shows that limited community engagement fails to produce meaningful policy transformation. Instead, it suggests that stakeholder engagement including community

members must be treated as a consultative process and a theoretical mechanism through which policy legitimacy, coordination, and adaptive capacity are constructed. Thus, by reconceptualising stakeholder engagement as dynamic rather than linear, the study challenges top-down policy models and advances a relational approach to policymaking that acknowledges community agency, informal networks, and inter-agency cooperation. Within this framework, communities are not passive beneficiaries but active stakeholders who contribute local knowledge, lived experiences, and adaptive practices that enrich policy processes. This recognition highlights the need for theoretical integration between SLF and participatory governance. While SLF offers a comprehensive lens for assessing livelihood assets, it often treats policies as static and external to communities. This study reframes policies as evolving and negotiated outcomes shaped by continuous dialogue among stakeholders, including community voices. Moreover, the study also Moreover, the findings reveal how community networks and local civil society organisations on Pangkor Island function as informal yet influential agents of change, often compensating for the limitations of formal governance structures. Their involvement demonstrates that livelihood strategies are co-constructed through ongoing policy dialogues and negotiated institutional arrangements. These insights align with critical institutionalism by showing how formal and informal institutions interact in shaping outcomes. Consequently, the study proposes a hybrid governance model that not only decentralises authority but also strengthens community capacity and enables resource sharing across multiple governance levels. Such an approach provides a more responsive and resilient framework for peripheral island settings, ensuring that community stakeholders are positioned as central actors in policy reform.

In addition, this study makes the most significant theoretical contribution by integrating the Blue Economy paradigm within the SLF framework to explore the potential of multi-livelihood strategies as dynamic and adaptive pathways. This integration addresses a key theoretical gap, as the Blue Economy has rarely been examined through a livelihood-based analytical lens. Traditionally, the Blue Economy has been primarily conceptualised through economic and ecological lenses, focusing on marine resource optimisation, economic diversification, and environmental stewardship. However, this study reframes the Blue Economy by embedding it within small island communities' socio-political and cultural fabric, thereby expanding the

theoretical scope of both the Blue Economy and SLF. This study extends SLF by emphasising the role of marine-based livelihood diversification as a dynamic and adaptive livelihood strategy that evolves in response to shifting policy environments, ecological changes, and market fluctuations. Rather than being static, livelihood strategies are shown to be iterative and flexible, shaped by ongoing negotiations among stakeholders and the community's capacity to mobilise resources across multiple sectors. Interview insights suggest that local stakeholders perceive the Blue Economy not merely as a sectoral shift but as a transformative mechanism that can reduce dependency on tourism and strengthen resilience through inter-sectoral linkages. For island residents, adopting multi-livelihood strategies such as aquaculture, marine conservation, community-based ecotourism, and fisheries co-management represents a means of building autonomy, buffering against shocks, and securing more sustainable futures. By positioning the Blue Economy as a livelihood-enhancing strategy rather than only a policy directive or economic rebranding, this study highlights the importance of recognising diversification as a continuous, adaptive process. Overall, it advances theoretical discussions on how dynamic livelihood strategies can strengthen resilience and sustainability in peripheral island contexts.

In rethinking the Blue Economy, this study introduces a more grounded, community-oriented perspective. Most theoretical discussions of the Blue Economy revolve around macroeconomic planning, investment flows, and technological innovations. This study, however, grounds the concept in lived experiences and community aspirations, providing a bottom-up theoretical model of how the Blue Economy can function as a sustainable development tool for peripheral regions. It enriches the theory by situating inclusivity, equity, and local agency as essential preconditions for the successful implementation of Blue Economy initiatives. In doing so, the study also challenges the prevailing technocratic and growth-oriented narratives of the Blue Economy. It suggests that without considering power asymmetries, environmental justice, and local knowledge systems, the Blue Economy risks replicating the same extractive patterns of traditional development models. Conceptually, this study reorients the Blue Economy towards a framework that prioritises socio-ecological resilience, co-management, and long-term community welfare. Prioritizing resilience ensures that communities are better equipped to adapt to ecological changes and market volatility. Co-management provides legitimacy and

shared responsibility in resource use, balancing conservation with livelihood needs. Long-term welfare focuses on intergenerational benefits, ensuring that short-term gains do not undermine the sustainability of community livelihoods. This research also contributes to livelihood theory by exploring the intersection between economic diversification and governance decentralisation. Economic diversification enables island communities to reduce dependency on a single sector, while decentralisation creates governance environments that empower local actors to shape resource management and policy outcomes. The study shows that the effectiveness of multi-livelihood strategies depends not only on access to marine resources but also on supportive institutional arrangements, community networks, and participatory decision-making platforms. By synthesising insights from the SLF, new institutional economics, and common-pool resource theory, this study highlights that sustainable Blue Economy outcomes can only emerge when diversification strategies are coupled with governance systems that are inclusive, adaptive, and accountable.

Furthermore, the study critically reflects how environmental sustainability is understood and operationalised within the SLF. By integrating Blue Economy practices such as marine spatial planning, mangrove restoration, and sustainable fishing into broader livelihood strategies, this research extends the SLF to recognise environmental responsibility as both a livelihood asset and an outcome. It calls for an ecological turn in SLF theorisation, where environmental assets are not merely inputs but integral to the definition of sustainable livelihoods. A key contribution of this study lies in positioning Pangkor Island as a microcosm of the wider dilemmas faced by small island communities, where the pursuit of economic growth through mass tourism development often competes with the need to preserve fragile marine ecosystems, such as coral reefs and mangroves, while also raising concerns of social equity in terms of who benefits from tourism revenues and who bears the costs of environmental degradation. By acknowledging environmental responsibility as integral to both assets and outcomes, the research highlights its equal importance alongside economic diversification and social well-being. Conceptually, it proposes the Blue Economy as a convergence framework through which these competing imperatives can be balanced, ensuring that livelihoods are not only economically viable and socially equitable but also ecologically sustainable. Overall, the chapter closes by highlighting the study's main theoretical contributions by advancing the SLF with governance and power dimensions, reframing

stakeholder theory within multi-level participatory tourism governance, and grounding the Blue Economy on community-led, livelihood-enhancing strategies. Together, these contributions offer an integrated theoretical framework that links policy, institutions, power, and multi-livelihood strategies in marine and coastal tourism contexts. This finding show that the study attempts to offer an integrated framework that connects policy, institution, and multi-livelihood strategies to drive sustainable and equitable outcomes in marine and coastal contexts.

Figure 5.1 shows the integration framework between SLF and Blue Economy of the Pangkor Island.

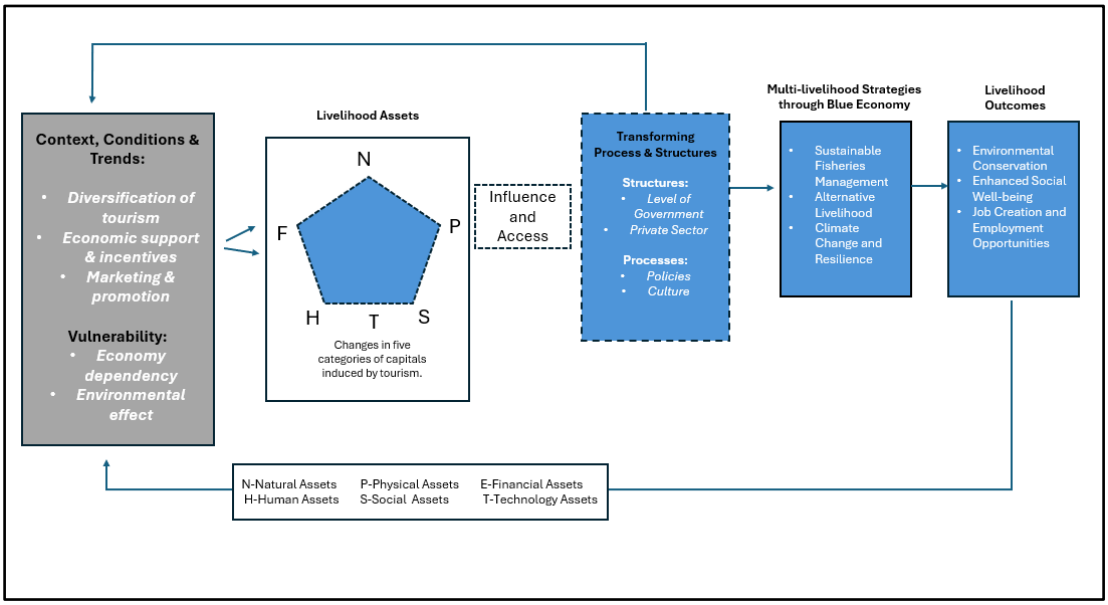


Figure 5.1 Sustainable Livelihood Framework Through Blue Economy Concept

5.3.2 Practical Contributions and Implications

This study holds significant practical implications for policymakers, tourism planners, community leaders, and relevant stakeholders involved in sustainable development on Pangkor Island and similar small island settings. This section offers applied insights and strategic directions that can inform context-sensitive tourism governance, community engagement mechanisms, and the operationalisation of Blue Economy principles in support of local livelihoods.

This study highlights how tourism development on Pangkor Island has led to uneven outcomes regarding community livelihood assets. Practically, this finding

implies that current tourism policies need for shifting away from centralised towards participatory and inclusive planning frameworks to ensure equitable distribution of benefits across all five livelihood resources, like natural, human, social, physical, and financial. Policymakers and tourism authorities should recognise communities not as passive recipients but as active stakeholders whose knowledge, agency, and priorities are integral to achieving sustainable tourism outcomes. For example, local communities should be actively consulted before major tourism infrastructure projects are undertaken or plan This will allow for better alignment between development priorities and community needs, foster more equitable benefit distribution, and strengthen the long-term resilience of island communities. Environmental impact assessments must also integrate local ecological knowledge to safeguard natural capital, such as marine resources and forested areas, which are vital for subsistence and economic activity. The observed marginalisation of local voices highlights the need to institutionalise community representation within tourism decision-making bodies at the district and state levels. This is to ensure the community perspective are not treated as ad hoc consultations but are embedded within governance structures. This strengthens policy legitimacy, enhances accountability, and ensures that development decisions reflect local priorities and lived realities. Furthermore, human capital limitations, particularly in terms of skills and training for high-value tourism jobs, highlight the importance of targeted capacity-building programmes. Vocational training in hospitality, language skills, ecotourism management, and environmental conservation should be prioritised for youth who often face barriers to participation. This is particularly urgent given the increasing demand for skilled labour in high-value segments of the tourism sector. Providing access to such training can elevate the employability and economic standing of these groups, thereby contributing to more inclusive development. This practical contribution supports SDGs 4 (Quality Education), 5 (Gender Equality), 8 (Decent Work and Economic Growth), and 10 (Reduced Inequalities) by supporting inclusive, skills-based capacity building that addresses structural barriers faced by youth in accessing high-value tourism employment.

At the same time, interventions to strengthen social capital should be emphasised. These could include the formation of community-based tourism cooperatives, which provide shared ownership and collective decision-making structures. Stakeholder forums, community meetings, and participatory dialogues can

also rebuild trust among local actors who may feel excluded from the current development trajectory. Such initiatives are essential in restoring social cohesion, fostering a sense of collective identity, and ensuring that tourism benefits are equitably distributed. These capacity-building and social initiatives must be backed by supportive institutional mechanisms. Local authorities should collaborate with NGOs, educational institutions, and development agencies to fund and implement long-term training and community development programmes. These collaborations can bridge expertise, resources, and outreach capacity gaps, particularly in remote or underserved communities. While Pangkor Island benefits from its designation as a duty-free and tourism flows, many segments of its local community underserve in term of access to skills training and resource management opportunities. Also, the study's insights into financial capital accumulation suggest that microfinancing schemes and inclusive investment models should be introduced to ensure local entrepreneurs can benefit from the tourism economy. These could be facilitated by development agencies or partnerships with local banks, offering flexible financing options for small-scale tourism enterprises, homestays, or cultural product development. These models encourage grassroots entrepreneurship and reduce reliance on external investors, thereby reinforcing local ownership and financial independence.

Equally important, strengthening physical capital must go hand in hand with environmental sustainability. Investments in public infrastructure such as roads, waste management systems, and water supply must consider ecological thresholds to avoid long-term degradation of the island's ecosystems. These infrastructures should be designed for functionality and resilience, incorporating climate-adaptive technologies and green building practices. Initiatives should incorporate climate-resilient infrastructure planning and green technology adoption to deepen the impact. Education campaigns focusing on environmental responsibility should be integrated into school curricula and community workshops. The active involvement in biodiversity and ecosystem health monitoring can significantly enhance both knowledge generation and community engagement. For Pangkor Island, this approach not only strengthens the quality and reach of ecological monitoring but also raises environmental awareness and empowers local residents to play a direct role in preserving natural capital. Policymakers must also consider land use rights and tenure security as fundamental to enabling long-term community stewardship over key physical and natural assets. These

collective strategies form a more coherent, localised approach to sustainable tourism development that acknowledges Pangkor Island's communities lived realities and aspirations. Therefore, the practical contributions of this research provide clear guidance for reforming tourism policy to ensure equitable benefit distribution, strengthen local skills and embed community participation in decision-making. By promoting inclusive planning, sustainable infrastructure, local entrepreneurship, and environmental stewardship, these insights offer a roadmap for building a more resilient, inclusive and community-driven tourism sector on Pangkor Island.

This research also provides the critical role of policy coherence and inter-agency collaboration in fostering more effective and inclusive tourism development. Operationally, this means that the Perak State Government, Manjung Municipal and federal agencies involved in tourism, fisheries, environment, and rural development must coordinate their strategies to prevent overlapping mandates and policy fragmentation. Establishing an inter-agency task force dedicated to sustainable island development could address this gap and enhance governance efficiency. Such collaboration enhances governance efficiency by reducing policy fragmentation, avoiding duplication of efforts, and ensuring that economic, environmental, and social priorities are aligned across different levels of government. Importantly, this approach also creates clearer accountability structures and facilitates knowledge-sharing between agencies, which is crucial for managing the complex, cross-sectoral challenges of island development. Besides, participatory policymaking must become institutionalised rather than implemented as ad hoc consultations. Mechanisms such as participatory rural appraisals (PRAs) stakeholder advisory boards, and town hall meetings should be formalised within policy design and review processes. These tools are particularly valuable in tourism and livelihood planning as structured engagement with local stakeholders can greatly enhance policy responsiveness and legitimacy. The study also indicates that community members and civil society actors are ready to be more proactive in co-developing tourism policy. This presents a practical opportunity to empower community-based organisations (CBOs) through technical training, leadership development, and legal recognition. Enhanced community capacity can transform these organisations into credible intermediaries between government agencies and local residents. Responding to these challenges, reforming policy implementation frameworks to include feedback loops and adaptive mechanisms is

essential. For example, tourism zoning laws and licensing regulations should be periodically reviewed and adjusted based on stakeholder feedback and environmental monitoring data. Policies should also include clear indicators to measure livelihood impacts, ensuring that tourism development is continuously aligned with sustainability and equity goals.

Furthermore, to promote inclusive governance, this research also points to the need for public awareness campaigns that clarify government policy and make planning documents more accessible to non-experts. Simplified guides, translated materials, and visual communication tools can enhance transparency and encourage greater civic participation in tourism governance. Ultimately, better utilisation of digital technology can facilitate participatory planning. For instance, online platforms and mobile applications could be employed to gather community feedback, disseminate policy updates, and enable residents to report tourism-related issues in real time. By harnessing technology, local voices can be amplified, and decision-making processes can be made more inclusive and agile. Equally important are dedicated funding allocations for community engagement, skills training and timelines should be attached to policy revisions to ensure lasting change. Multi-stakeholder oversight committees could be established to monitor progress and ensure accountability. Next, education and capacity building strengthen the ability of communities to engage meaningfully. Partnerships with schools, vocational centres, and universities can provide training in areas such as sustainable tourism, environmental monitoring, or participatory governance. For example, local youth could be trained to use digital tools for citizen science or policy tracking, turning education into both a capacity-building and empowerment strategy. Overall, for policy implications, this means that governance frameworks for Pangkor Island should institutionalise these dimensions to ensure participation is not only symbolic but also informed, resourced, and sustained positioning the island as a model for integrated, people-centred tourism policy.

This study also offers new knowledge for operationalising the Blue Economy in a manner that benefits island communities directly. Stakeholders expressed interest in diversifying beyond tourism by incorporating marine-based activities such as sustainable fisheries, aquaculture, marine conservation, and eco-friendly boating. These aspirations indicate a demand for structured policy support, capacity building, and investment in infrastructure tailored to Blue Economy sectors. This implies that relevant

government agencies must design and implement an integrated Blue Economy development plan specifically for Pangkor Island. This plan should align with national maritime strategies while reflecting local priorities. Key components would include training programmes in sustainable aquaculture techniques, incentives for adopting environmentally friendly fishing gear, and funding schemes for community-led marine tourism ventures. As part of this approach, spatial planning tools such as Marine Spatial Planning (MSP) should be utilised to demarcate zones for fishing, conservation, tourism, and shipping activities. This can help balance competing interests and protect critical habitats such as coral reefs and mangroves. The community should be actively involved in the MSP process to ensure that zoning decisions reflect both ecological and socioeconomic considerations. The results also suggest a pressing need to strengthen institutional arrangements for co-management of marine resources. Local fishers and community groups should be included in decision-making bodies overseeing marine conservation areas, fishing quotas, and enforcement mechanisms. This will foster a sense of ownership and improve compliance with environmental regulations. Moreover, multi-livelihood strategies require cross-sectoral training and education. Youth in particular, should be targeted with opportunities to gain skills in ecotourism guiding, seafood processing, marine biology, and digital marketing. Partnerships with local universities, NGOs, and international development organisations can support curriculum development and mentorship programmes. Microcredit programmes and cooperative models should be promoted to support the financial viability of multi-livelihood strategies. These can help residents invest in small-scale enterprises without relying solely on tourism revenues. Branding and marketing strategies for locally produced marine goods and ecotourism experiences can also increase visibility and access to wider markets.

This study also emphasises the role of local authorities in enhancing infrastructure to better supports Blue Economy activities. Investments in small jetties, cold storage facilities, ecotourism information centres, and marine research stations can provide the physical backbone for diversified livelihoods. These infrastructure projects should be community-driven and environmentally manner, ensuring that infrastructure development not only facilities economic opportunities but also strengthens long-term resilience and ecological stewardship. Finally, public-private partnerships (PPPs) can be leveraged to bring investment, innovation, and managerial expertise into the local

Blue Economy. However, such partnerships must be regulated to ensure fair benefit-sharing, environmental safeguards, and respect for community rights. Institutional frameworks should thus be strengthened to manage PPPs transparently and equitably. A dedicated monitoring and evaluation mechanism should also be established to assess Blue Economy initiatives' performance in achieving conservation and community welfare objectives. Local schools and training centres could integrate marine sustainability education, further embedding these principles within community values. The combined effect of these actions can foster resilience, self-reliance, and a diversified local economy that balances ecological health with economic prosperity. In summary, the practical implications of this research provide a comprehensive roadmap for transforming Pangkor Island's development trajectory through inclusive governance, integrated policy reform, and sustainable multi-livelihood strategies anchored in the Blue Economy. These actions can ensure that tourism and marine development contribute meaningfully to the long-term wellbeing of island communities. Table 5.4 highlights the summary of policy synthesis table linking the findings to actionable recommendations.

Table 5.4
Policy Synthesis Table of Pangkor Island

Key Findings	Stakeholder Perspectives	Policy/Implementation Gaps	Actionable Recommendations	Relevant Plan/Alignment	Relevant Research Objective
Tourism development boosts infrastructure and income	Local community values new roads and jetties but fears overdevelopment and ecological harm	Lack of environmental safeguards and exclusion from planning processes	- Require Environmental Impact Assessments (EIA) for all coastal projects - Institutionalize community participation in planning boards	Perak Sejahtera 2030- Inclusive Economic Growth	Research Objective 1
Human capital remains underdeveloped despite new job opportunities	Youth express interest in tourism but lack training and digital skills	Insufficient access to training, certifications, or digital tools	- Launch eco-tourism certification and digital literacy programs via Perak Entrepreneur and Skills Development Centre (PESDC)	Perak Sejahtera 2030- Human Capital and Youth Development	Research Objective 1

			- Establish local vocational hubs for marine-based skills, leadership, and entrepreneurship		
Policy fragmentation across tourism, fisheries, and Blue Economy programs	Government and community actors find efforts disjointed and confusing	Siloed implementation (tourism licensing separate from marine zoning and lack of coordination	- Establish inter-agency taskforce on island tourism and marine livelihoods - Integrate Blue Economy and tourism policies under a unified state strategy	Integrated Coastal Zone Management (ICZM) Plan Pangkor Duty-Free Policy, Special Area Plan	Research Objective 2
Community lacks continuous engagement in tourism policy	Local operators feel policies are top-down and disconnected from ground needs	No permanent mechanism for local feedback	- Set up Local Tourism and Marine Council (LTMC) - Conduct quarterly community forums to align priorities	Perak Tourism Action Plan Blue Economy Malaysia Framework	Research Objective 2

Over-reliance on seasonal tourism weakens resilience	Many operate multiple jobs to cope (tour fishing)	No formal recognition or support for hybrid work models	- Introduce flexible licensing for hybrid operators (tourism fisheries operators) - Offer off-season income stabilization grants or funds	Perak Sejahtera 2030- Economic Security for Coastal Communities	Research Objective 2 and 3
Multi-livelihood strategies are emerging informally	Households combine fishing, seafood retail, and tourism	No support structure for hybrid livelihood innovation especially on branding, packaging and online access	- Provide small grants for marine tourism and seafood innovation - Develop innovation hubs to support hybrid entrepreneurs such as eco-branding	Perak Digital Economy Strategy	Research Objective 3
Blue Economy potential is high but	Stakeholders link it to sustainability, but lack tools	Concept not well-localized; limited support programs	- Operationalize Blue Economy via community projects: coral restoration, seaweed farming	Perak Sejahtera 2030- Coastal Livelihoods	Research Objective 3

underutilized	and funding		- Launch Blue Economy incubator under Perak Sejahtera 2030 (visual guides, mobile training units, grant templates)	National Blue Economy Roadmap	
Conservation is viewed as a burden, not a livelihood	Communities lack incentives to engage in environmental efforts	Few mechanisms to link conservation with income	- Introduce "Adopt-a-Reef" and "Youth Eco-Ranger" programs - Reinvest eco-tax revenue into local conservation livelihoods	Perak Sejahtera 2030- Perak Biodiversity Strategy Pangkor Island Environmental Management Plan	Research Objective 3

Source: Researcher Propositions

5.4 Limitations and Recommendations for Future Research

While this study provides meaningful insights into the interconnected dynamics of tourism development, Blue Economy initiatives, and community livelihoods on Pangkor Island, several limitations must be acknowledged to contextualise the findings. Firstly, the qualitative research design, although well suited for exploring context-specific perceptions and uncovering nuanced stakeholder experiences, limits the generalisability of the results beyond the immediate study site. The purposive selection of 16 stakeholders representing government agencies, tourism operators, local communities, and academics was intended to capture diverse perspectives. However, the relatively small sample size constrains the ability to extrapolate conclusions to broader populations or different island contexts.

Secondly, the study does not directly engage with the voices of underrepresented or vulnerable groups such as youth, engaged in informal or seasonal employment, and migrant workers. These groups often interact with tourism development in distinct ways, encountering barriers related to access to resources, formal employment opportunities, and participation in governance processes. Their exclusion from the core participant pool creates a critical gap in understanding the full spectrum of community impacts, particularly in identifying hidden forms of economic contribution, livelihood risk, and social marginalisation. Although some of their concerns may have emerged indirectly through broader stakeholder narratives, this does not fully compensate for their absence as direct participants in the research.

Thirdly, the research is geographically confined to Pangkor Island, which possesses a unique set of attributes that distinguish it from other island or coastal destinations. As a duty-free island with a specific administrative structure, cultural heritage, and established tourism economy, Pangkor presents a distinct development context. These localised characteristics, including its governance mechanisms and socio-political dynamics, may limit the broader applicability or transferability of the study's findings. While the insights generated are valuable for understanding sustainable livelihood strategies and Blue Economy integration in similar small-island settings, they may not fully reflect the realities faced by other islands that operate under different regulatory environments, demographic compositions, or economic dependencies. Moreover, Pangkor's status as a relatively accessible and well-developed

tourism hub within Peninsular Malaysia may not correspond with more isolated or under-resourced coastal areas in Southeast Asia where infrastructural deficits, institutional weaknesses, or cultural variations might produce different development outcomes. As such, caution is warranted when attempting to generalise the conclusions of this study to other island contexts.

Fourthly, the study was conducted during a post-COVID-19 recovery period. As such, participants' views may have been shaped by heightened economic uncertainty, employment insecurity, and policy flux. These temporal dynamics mean that some insights may be more reactive than stable, and the long-term consequences of the pandemic on community livelihoods remain uncertain. Fifthly, although this research integrates key theoretical frameworks, namely the Sustainable Livelihoods Framework, Stakeholder Theory, and Blue Economy principles, it does not quantitatively measure livelihood outcomes or changes over time. The absence of baseline or longitudinal data restricts the ability to assess causal relationships between tourism strategies and tangible livelihood impacts.

Lastly, while the study provides valuable qualitative insights into institutional dynamics, it does not offer a systematic or in-depth institutional analysis that formally maps power asymmetries, policy enforcement gaps, or interagency coordination mechanisms. Although informal institutions such as community networks, customary practices, and local leadership structures emerged as influential in shaping development outcomes, the pathways through which these informal mechanisms interact with formal governance structures remain insufficiently theorised and underexplored. This limits the ability to fully understand how decision-making processes, authority distribution, and institutional accountability either facilitate or obstruct the goals of sustainable tourism and Blue Economy implementation. Furthermore, the absence of a clear framework for analysing governance effectiveness, particularly with regard to overlapping mandates, sectoral fragmentation, and regulatory enforcement, restricts the study's ability to inform institutional reform or policy design. The study's emphasis on stakeholder perspectives, while crucial, would have benefited from complementary data such as policy documents, institutional performance metrics, or organisational network analysis. These tools could provide a clearer picture of institutional capacity and governance bottlenecks. Without this, the analysis remains largely interpretive and does

not fully capture the structural dimensions of governance that are critical for sustainable island development.

Building on the identified limitations, this study offers several avenues for future research to deepen and broaden understanding of tourism and Blue Economy impacts on island communities. First, future studies should adopt a more inclusive methodological approach that actively involves marginalised groups such as youth, women in informal sectors, and migrant workers. Their direct participation can illuminate overlooked livelihood strategies, structural inequalities, and informal contributions to tourism economies, providing a more holistic picture of community resilience. Gender-responsive and participatory methods such as photovoice or community mapping can enhance inclusivity and voice.

Second, there is a clear need to expand the geographic scope beyond Pangkor Island. Comparative research across multiple island and coastal communities, both within Malaysia and across Southeast Asia, could reveal how varying sociopolitical contexts, governance capacities, and resource dependencies shape tourism and Blue Economy outcomes. Such comparative analysis could inform regionally tailored policy strategies and foster transboundary cooperation. Third, future studies should consider incorporating mixed-methods or longitudinal research designs. Quantitative data on livelihood assets, income sources, and employment trends could complement qualitative findings, enabling more robust assessments of policy interventions and development outcomes over time.

Fourth, future research should explore the long-term socioeconomic and governance implications of post-COVID tourism recovery. This includes evaluating how adaptive capacities, digital transitions, and shifting visitor preferences affect community resilience and planning. Fifth, there is significant value in advancing the theoretical integration of the Blue Economy within the Sustainable Livelihoods Framework and Stakeholder Theory. Future studies could operationalise hybrid governance models that include co-management, decentralisation, and multistakeholder collaboration, thereby producing actionable insights for policy reform. Further conceptual refinement can also help distinguish how environmental sustainability is embedded in livelihood strategies, especially under marine-based development paradigms.

Lastly, institutional analysis should be made a more prominent focus of future inquiry. Understanding the formal and informal power dynamics, bureaucratic bottlenecks, and multilevel governance frictions is essential for designing more responsive and equitable tourism and coastal development policies. Methodologically, this could involve network analysis or institutional mapping to identify leverage points for policy reform. Strengthening this dimension will also help reveal how grassroots innovations or local leadership influence decision-making in contexts of limited state capacity. Collectively, these research directions can support the development of adaptive, inclusive, and sustainable island development models that respond to global challenges while remaining grounded in local realities.

5.5 Conclusions

This chapter has presented the key academic and practical contributions, limitations, and future research directions derived from the study. Drawing on rich empirical insights from Pangkor Island, the research offers critical insights into how tourism development and the Blue Economy concept interact with community livelihood assets, strategies, and outcomes within a small island context. Theoretically, the study extends the Sustainable Livelihood Framework (SLF) by contextualizing it within a tourism-dependent, marine-based environment, while also integrating stakeholder theory and localized interpretations of the Blue Economy offering a conceptual model that reflects the socio-ecological complexities of island development.

Practically, the findings highlight the importance of inclusive policy framework, community capacity-building, and infrastructure planning that align with local socio-economic realities and ecological vulnerabilities. The study identifies actionable policy pathways to strengthen multi-livelihood strategies, enhance resilience, and promote equitable benefit sharing particularly through localized Blue Economy practices.

Despite its contextual richness, the study's scope is limited by its qualitative nature and geographical focus, suggesting the need for broader, comparative, and data-driven studies in the future. The acknowledged absence of voices from marginalized group such as women, youth, and migrant workers presents a critical opportunity for

more inclusive and participatory scholarship going forward. Nevertheless, the research offers a valuable foundation for developing sustainable, community-oriented tourism strategies in small island contexts.

Ultimately, this study emphasizes the need for cross-sectoral collaboration, adaptive livelihood support, and grassroots participation to ensure tourism and marine-based development serve as catalysts for equitable and resilient growth. As Pangkor Island continues to evolve within Malaysia's national and regional development agendas, the insights from this study can inform real-world policy design, community innovation, and future research across similar coastal and island settings. The future of sustainable island development depends not only on high level of planning but also on the capacity of local communities to co-create resilient, inclusive, and environmentally responsible pathways where the propose of tourism and Blue Economy translates into lasting and meaningful impact.

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APPENDICES

APPENDIX A

Approval Letter – UiTM Research Ethics Committee

www.uitm.edu.my

UNIVERSITI TEKNOLOGI MARA

Pejabat
Timbalan Naib Canselor
(Penyelidikan dan Inovasi)

Reference : 600-TNCPI (5/1/6)
Our reference : REC/09/2023 (PG/MR/377)
Date : 27 September 2023

Professor Dr Mohd Hafiz bin Mohd Hanafiah
(Noorhaiza bt Masri – 2021251018)
Faculty of Hotel and Tourism Management
UiTM Campus Puncak Alam
42300 Bandar Puncak Alam
SELANGOR

Dear Professor Dr Mohd Hafiz,

APPROVAL LETTER - UiTM RESEARCH ETHICS COMMITTEE

Thank you for submitting your research proposal to the Research Ethics Committee (REC). After considering your application, the Committee approved your proposal titled "Developing an Inclusive Community Sustainable Livelihood Framework through Blue Economy Concept for Marine and Coastal Tourism Destination Development" in Pangkor Island, Perak, Malaysia

Details of the approval are as follows:

Ref. number:	REC/09/2023 (PG/MR/377)
Approval Period:	27 September 2023 until 29 February 2024
Authorised personnel:	1. Professor Dr Mohd Hafiz bin Mohd Hanafiah 2. Noorhaiza bt Masri 3. Dr Mohd Romzee bin Ibrahim 4. Dr Nur Adilah binti Md Zain

The UiTM Research Ethics Committee operates in accordance to the ICH Good Clinical Practice Guidelines, Malaysian Good Clinical Practice Guidelines and the Declaration of Helsinki. The approval of this project is conditional upon your continuing compliance with these guidelines and declaration.

We draw to your attention the requirement that a report on this research, must be submitted every 12 months from the date of the approval or on the completion of the project, whichever occurs first. Failure to submit reports will result in withdrawal of consent for the project to proceed. Amendments, if any, to the study documents are to be submitted to the REC for approval.

If you require further information, please contact the REC Secretariat at 03-55448069/03-55442794 or email at recsecretariat@uitm.edu.my.

Yours sincerely,

EMERITUS PROFESSOR DATO' DR RAYMOND AZMAN ALI
Chairman
UiTM Research Ethics Committee

c.c.: Dean, Faculty of Hotel and Tourism Management, UiTM

Universiti Teknologi MARA
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ISO 9001:2015 No. Sijil: 10120156

UiTM di hatiku

APPENDIX B

Content Validation

Ref. number: REC/09/2023 (PG/MR/377)
Date :30th October 2023

Associate Professor Dr Abdul Rahim Bin Ridzuan
Senior Economic Lecturer,
Department of Economics and Finance,
Faculty of Business and Management,
Universiti Teknologi MARA, Melaka Campus Malaysia.

Subject: Appointment as Subject Matter Expert for Content Validation

Greetings,

Dr Abdul Rahim.

I am Noorhaiza Bt Masri, a Ph.D. candidate at the Faculty of Hotel and Tourism Management, UiTM Puncak Alam Campus, Selangor, Malaysia. I am writing this to kindly request your professional assistance in the validation of my research questionnaire.

I would like to inform you that my supervisor, Prof. Dr. Mohd Hafiz Hanafiah, has recommended you as a knowledgeable field expert for this purpose.

My research focus on the community sustainable livelihoods by integrating blue economy concepts for marine and coastal tourism destination. Reinvesting in a blue economy which support and emphasizes the importance of marine protected areas, sustainable fisheries management, and coastal tourism facilities that employ renewable energy would be able to foster economic progress while simultaneously conserving the environment and the local community's livelihoods. This research seeks output from the key participants from various stakeholder namely government, business platers, academia, and local communities itself.

Therefore, I am going to collect the data through semi-structured questionnaire in my research. As a part of validation of said questionnaire, I have to do the content validity (i.e. to check the extent of appropriateness of questionnaire to claim the validity and ability to measure the purpose) of questionnaire. So, I am seeking your valuable expertise, as indicated in the attached documents. Feel free to contact at my email address for any concern.

Research title: Developing an Inclusive Community Sustainable Livelihood Framework Through Blue Economy Concept for Marine and Coastal Tourism Destination Development

Research Objective: There are 3 main specific objectives to be achieved:

i. To explore stakeholders' perspective on how current tourism development policy in Pangkor island affect the island's community livelihood assets.
ii. To investigate stakeholders' perspective on the potential changes in developmental policies in support of Pangkor Island community's livelihood strategies and their livelihood outcomes.

APPENDIX C

Face Validation

UNIVERSITI TEKNOLOGI MARA

Ref. number : REC/09/2023 (PG/MR/377)
Date :16th October 2023

Dr. Irhanida Abdul Kadir
Senior Lecturer
School of Hospitality, Tourism, and Culinary Arts,
UOW Malaysia, KDU Penang University College
Email: irhanida@uow.edu.my

Respected Dr,

Subject: Request for input for face validity of Questionnaire.

I am Noorhaiza Bt Masri currently pursuing a PhD in Hotel and Tourism Management at UiTM Puncak Alam Campus, Selangor, Malaysia. My research focus on the community sustainable livelihoods by integrating blue economy concepts for marine and coastal tourism destination. Reinvesting in a blue economy which support and emphasizes the importance of marine protected areas, sustainable fisheries management, and coastal tourism facilities that employ renewable energy would be able to foster economic progress while simultaneously conserving the environment and the local community's livelihoods. This research seeks output from the key informants from various stakeholder namely government, business platers, academia, and local communities itself.

Therefore, I am going to collect the data through semi-structured questionnaire in my research. As a part of validation of said questionnaire, I have to do the face validity (i.e. to check the extent of appropriateness of questionnaire to claim the validity and ability to measure the purpose) of questionnaire. So, I sincerely request you to go through the below information and instructions and share the response in the response sheet on the next page. Feel free to contact at my email address for any concern.

Research title: Developing an Inclusive Community Sustainable Livelihood Framework Through Blue Economy Concept for Marine and Coastal Tourism Destination Development

Research Objective: There are 3 main specific objectives to be achieved:

i. To explore stakeholders' perspective on how current tourism development policy in Pangkor island affect the island's community livelihood assets.
ii. To investigate stakeholders' perspective on the potential changes in developmental policies in support of Pangkor Island community's livelihood strategies and their livelihood outcomes.
iii. To propose multi-livelihood strategy through the Blue Economy concept in enhancing the Pangkor Island community's livelihood strategies and their livelihood outcomes.

APPENDIX D

Letter To Majlis Perbadanan Manjung

UOW
MALAYSIA
KDU UNIVERSITY
COLLEGE

PART OF THE UNIVERSITY
OF WOLLONGONG AUSTRALIA
GLOBAL NETWORK

Tarikh: 12th April 2022

Majlis Perbandaran Manjung,
Jalan Pinang Raja,
32040 Seri Manjung,
Perak Darul Ridzuan

Tuan/Puan,

PERMOHONAN MENDAPATKAN DATA/MAKLUMAT PENDUDUK DI PULAU PANGKOR

Dengan segala hormatnya merujuk perkara di atas,

2. Saya Noorhaiza, pensyarah kanan di UOW Malaysia KDU dan tujuan saya menulis surat ini adalah untuk memohon mendapatkan data terperinci mengenai penduduk di Pulau Pangkor bagi tujuan penyelidikan. Tajuk kajian saya adalah: *Developing an Inclusive Sustainable Community Livelihood Framework for Rural Marine and Coastal Tourism Destination Development*.

3. Berikut merupakan data yang diperlukan untuk kajian saya:
   - i- Jumlah terkini penduduk Pulau Pangkor
   - ii- Jumlah kampung di diami
   - iii- Jumlah penduduk setiap kampung
   - iv- Jumlah isi rumah setiap kampung
   - v- Peta kependudukan Pulau Pangkor (jika ada)
   - vi- Data pekerjaan penduduk (jika ada)

4. Oleh itu, saya berharap melalui permohonan maklumat di atas dapat membantu dalam menjayakan kajian saya ini. Maklum balas pihak tuan/puan terhadap perkara ini amat dihargai. Sebarang pertanyaan lanjut tuan/puan boleh menghubungi saya melalui e-mel di **noorhaiza.m@kdu.edu.my** atau di talian 019-2339246. Sekian, terima kasih.

Yang Benar,

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UOW Malaysia KDU University College

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APPENDIX E

Data Collections and Study Site








PERHATIAN
Pemandu Teksi
Sahaja



APPENDIX F

Interview With Local Authorities






0:03:03
0:58:37
(MPM) Interview Session for Community Sustai...


TERIMA KASIH.
SILA DATANG LAGI.

AUTHOR'S PROFILE



Noorhaiza Masri is a senior lecturer at the School of Hospitality, Tourism and Culinary Arts, University of Wollongong Malaysia, since 2017 until present. She obtained bachelor's degree of Tourism Management in 2008 from Universiti Teknologi Mara Cawangan Shah Alam. She also completed her Master in Tourism (2016) from Universiti Teknologi Mara Cawangan Puncak Alam. Her research on the community sustainable livelihood in coastal and marine tourism destination development through blue economy concept.

LIST OF PUBLICATION:

Masri, N., Hanafiah, M. H., Md Zain, N. A., & Ibrahim, M. R. (2025). Sustainable livelihood in coastal and marine tourism destinations: a systematic literature review and future research agenda. *Australian Journal of Maritime & Ocean Affairs*, 1–22.

Masri, N., Mohd Hanafiah, M. H., Md Zain, N. A., & Ibrahim, M. R. (2024). Determining the local communities' livelihood resources in coastal and marine tourism destination development in Pangkor Island, Malaysia: preliminary findings. *e-Academia Journal*, *13*(1), 40-60.

Masri, N., Anuar, F.I., & Yulia, A. (2017). Influence of Wi-Fi service quality towards tourists' satisfaction and dissemination of tourism experience. *Journal of Tourism, Hospitality & Culinary Arts*, 9(2), 383-398.

Christiawan, D. B., Masri, N. B., & Hariani, D. (2024). Local Community Support Towards Creative Tourism Development of Mojokerto City, Indonesia. *Journal of Tourism, Hospitality & Culinary Arts*, 16(1), 122-138.

ACHIEVEMENT:

1. Developing an Inclusive Sustainable B40 Community Livelihood Framework for Rural Marine and Coastal Tourism Destination Development. IRGS 2022/2024 (Project leader)- Grant Value: RM13,450 (Completed)
2. Heats: 2025 Three Minute Thesis (3MT) *National Level Competition*
3. 1st Runner-up-Final (Social Science, Business & Management Category) 2025 UiTM Three Minute Thesis (3MT) *University Level Competition*
4. 3rd Place-Semi Final (Social Science, Business & Management Category) 2025 UiTM Three Minute Thesis (3MT) *University Level Competition*
5. Best Presenter Award: Postgraduate Colloquium 2025: 3MT Series