



Developing an Action Plan for Sustainable Tourism Development in Dachen Island: Stakeholders Engagement Perspective

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March 16, 2025

Written in fulfillment of the requirements for the degree of Master in Public Administration in International Development, John F. Kennedy School of Government, Harvard University.

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Acknowledgments

Growing up in a small rural community in China, I never imagined that I would one day be admitted to Harvard University. I still vividly remember the overwhelming excitement when I received the admission letter from the Master in Public Administration in International Development (MPA/ID) program at Harvard Kennedy School.

As the youngest student in the MPA/ID program, class of 2025, my two years here have been both challenging and transformative. Surrounded by more experienced classmates and grappling with language barriers, I initially found it difficult to adapt. However, over the past two years, I have made remarkable progress, building strong confidence and learning to view my weaknesses objectively. While continuing to strive for improvement, I've learned that these challenges, though difficult, have enriched my life and added vibrant colors to my journey.

My experience at Dachen Island unexpectedly and successfully helped me reach a higher platform, for which I am always grateful. Thus, I chose a topic related to Dachen Island for my Second Year Policy Analysis (SYPA), hoping to give back with the knowledge I learned at MPA/ID. Fortunately, the Government of Dachen Island supported me greatly.

Two years have passed quickly, and I want to express my gratitude to the many people who have been part of my story:

- To my advisor, Juan Ariel Jimenez: Thank you for your thoughtful comments, critiques, and suggestions. You generously accepted my request to be my advisor when I needed guidance the most, patiently helping me navigate challenges and find solutions to my problems. Your advice has extended beyond the SYPA to life. I aspire to achieve the level of success you have attained and will carry your lessons with me into the future.
- To my SYPA section leader, Anders Jensen: Your guidance during office hours was invaluable. Thanks to your ability to clarify the structure of my SYPA, ask thought-provoking questions, and identify impactful next steps, I always left our meetings feeling motivated and excited. Your mentorship has been a cornerstone of my progress.
- To Lili Li at the Dachen Government: Your unwavering support provided me with the

materials I needed, organized interviews with stakeholders, and connected me with experts who offered valuable advice. Your encouragement helped me overcome countless obstacles, and without your help, I would not have gained such meaningful experiences at Dachen Island.

- To Dr. Hazem Ali, my “best foreigner in China”: Our collaboration on my first paper was a tremendous success, earning recognition from the Dachen Government and paving the way for my subsequent research. Your patient guidance as a distinguished academic enhanced my understanding of research, and I am grateful for the inspiration you provided.
- To my family: Thank you for your endless support and the countless opportunities you have given me. You have emphasized the importance of education since childhood and selflessly dedicated yourselves to my success. You are indeed the MVPs of my life, and I wouldn’t be where I am today without you.

Reflecting on these two incredible years, I am grateful for the people who have shaped my journey and inspired me to continue striving for growth and excellence. Thank you for being a part of my story.

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Executive Summary

Due to geographical isolation and distinctive environmental characteristics, small islands face inherent challenges in achieving sustainable tourism development. This policy analysis examines sustainable tourism development on Dachen Island through the lens of sustainable tourism as defined by the United Nations World Tourism Organization (UNWTO)¹ and offers insights applicable to comparable island destinations globally.

In the context of Dachen Island, the core policy problem lies in persistent stakeholder conflicts —evidenced by a 3.5% decline in resident population (2020–2023) and stagnant total income (¥44,842 to ¥67,663 GDP growth, 2018–2023 and per capita income <¥650 annually)—stemmed from two main unresolved tensions: (1) Economic inequity: Tourism revenue disproportionately benefits businesses, failing to uplift locals (e.g., limited job opportunities, school closures). (2) Environmental strain: Seasonal overcrowding (e.g., summer tourist spikes) overwhelms waste systems, degrading ecosystems.

Initial semi-structured interviews (February to May 2024) identified six key conflicts among 29 stakeholders—residents, officials, visitors, and business owners, including disputes over economic distribution and environmental priorities. This research set six policy recommendations as the hypotheses with theoretical support. A second round of interviews (December 2024 to January 2025) validated sustainability issues and tested six policy hypotheses derived from literature.

This policy analysis concluded two main policy recommendations for sustainable development: (1) Tailor publicity material and enhance stakeholder education, such as the collaboration with academic institutions to provide expertise and credibility and incentive systems to encourage sustainable behaviors; (2) Strengthen stakeholder engagement, such as the establishment of a Stakeholder Coordination Committee to facilitate regular dialogues and promote transparency and inclusivity in decision-making processes.

¹ <https://www.unwto.org/sustainable-development>

1 Introduction

1.1 Background

Dachen Island, administratively under Dachen Town, is located in Taizhou City, Zhejiang Province, belonging to the East China Sea. It has two main islands, Upper Dachen Island (with an area of 7 square kilometers) and Lower Dachen Island (with an area of 4.89 square kilometers). With a forest coverage rate of 50%–60%, it is designated as a provincial-level maritime forest park. The island boasts undulating hills and unique natural and cultural landscapes. Recognized as a national first-class fishing port and a provincial sea fishing base, the surrounding waters form Zhejiang Province's third-largest fishing ground, earning Dachen Island the title "Pearl of the East China Sea."

From 1949 to 1955, the civil wars between the Kuomintang and the Communist Party of China happened in the Yijiangshan Islands, which are close to Dachen Island. After losing the battle, Chiang Kai-shek and his Kuomintang decided to leave Dachen Island because they were unable to protect these areas, taking nearly all citizens and resources and destroying all the infrastructures. In 1955, the Communist Party of China began to rebuild this island. Residents from nearby areas in Taizhou, such as Huangyan and Wenlin, have moved to this island. Before long, they were self-sufficient and lived on fishing. Through the hard work of the inhabitants, Dachen Island has made significant progress.

With the special cultural deposits and unique island views, the tourism industry has been highlighted by the Taizhou government and witnessed remarkable growth over the past 10 years, increasing visitors from 105,000 in 2017 to 190,000 in 2023, with about 10% increase each year, becoming the backbone industry on Dachen Island (Weng, 2022) and reaching the standard of a national AAAA level tourist attraction in China. Furthermore, it also drives the development of other industries. With the increase in visitors from across China, the surge in demand for local products and services increases, reflected in the number of hotels increasing from 45 in 2019 to 58 in 2024, and seafood becomes the first choice to offer for visitors. This rising demand has accelerated the growth of the fishery industry on Dachen Island, creating a mutually reinforcing synergy.



Figure 1: Tourist Numbers Trend (2017-2023)

Resource: Government of Dachen

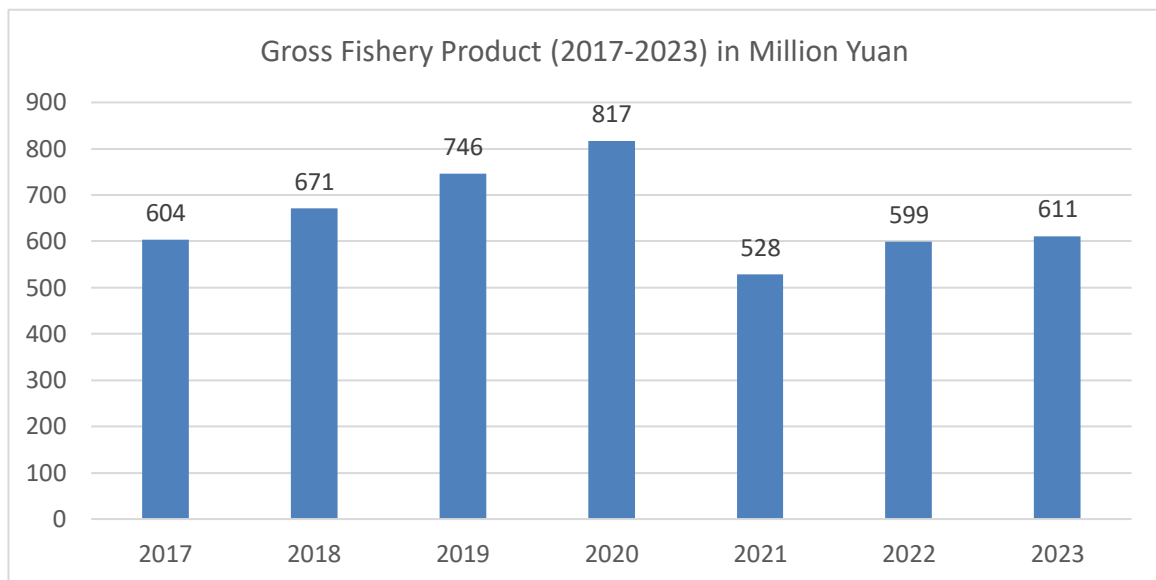


Figure 2: Fishery Production Trend (2017-2023)

Resource: Government of Dachen

With the national government's attention, an increasing number of initiatives and strategies have been implemented on Dachen Island to achieve sustainable tourism (ChinaDaily.com, 2022). Firstly, the government has designated scenic areas to protect the natural environment while not affecting the tourists' traveling experience. For example, specific zones have been established where ecological conservation is prioritized, such as protected

beaches, while ensuring tourists can enjoy guided tours and designated recreational spots. Secondly, Dachen Island has promoted heritage tourism by building a museum to present its history story from the 1950s and filming a documentary to explain the historical background of some landscapes. Thirdly, Dachen Island has been designed as the flagship for the zero-carbon emission area, and three innovative infrastructure projects, wind power generation, hydrogen energy storage, and low-frequency power transmission, have been completed on Dachen Island in the last ten years.

Overall, through the efforts of different departments in Taizhou, Zhejiang Province, Dachen Island has approached sustainable tourism development in the last ten years through collaborative strategies of environmental conservation, cultural preservation, community engagement, and responsible tourism practices.

1.2 Problem Description

1.2.1 Phenomena of Low Sustainability

This policy analysis will use the lens of sustainable tourism as defined by the United Nations World Tourism Organization (UNWTO). According to the UNWTO, sustainable tourism is “tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, the industry, the environment, and host communities”². The UNWTO advocates for sustainable tourism as a key driver in achieving the Sustainable Development Goals (SDGs).

In the context of Dachen Island, despite the government officials having made great efforts for development for several years, its development conditions are constrained by nature. Here are three unsustainable situations: (1) Dachen Island is located far from the nearest coastal area, and the most convenient transportation only connects the island to a port that is not the closest, taking about 2.5 hours by ship. (2) Dachen Island is relatively small, with significant areas covered by mountains, leaving limited land available. In addition, ecological

² United Nations World Tourism Organization (UNWTO), "Sustainable Development," accessed [March 5, 2025], <https://www.unwto.org/sustainable-development>.

red-line restrictions and the complexity of land status make it challenging to expropriate much of the land covered by the forest. (3) The frequency of adverse weather is high, with foggy weather more prevalent from January to June and more windy weather, such as summer typhoons, from July to October.

These unsustainable phenomena negatively impact sustainable tourism development. For example, locals discovered that though the overall economy has made significant progress in recent years, because of unstable job salaries and limited promotion opportunities, fewer and fewer citizens live on the island, and they may only return for specific holidays, such as during winter and summer vacations. In Figure 2, the population trend with local registration declined from 3925 to 3816 from 2020 to 2023 and fell for three years from 2020 to 2022. This phenomenon could be attributed to limited job opportunities and scarce educational resources due to an incomplete education system. Therefore, some families decided to move out of Dachen Island, which could provide wider career choices with a broader promotion career path and ensure their children receive a higher quality education.

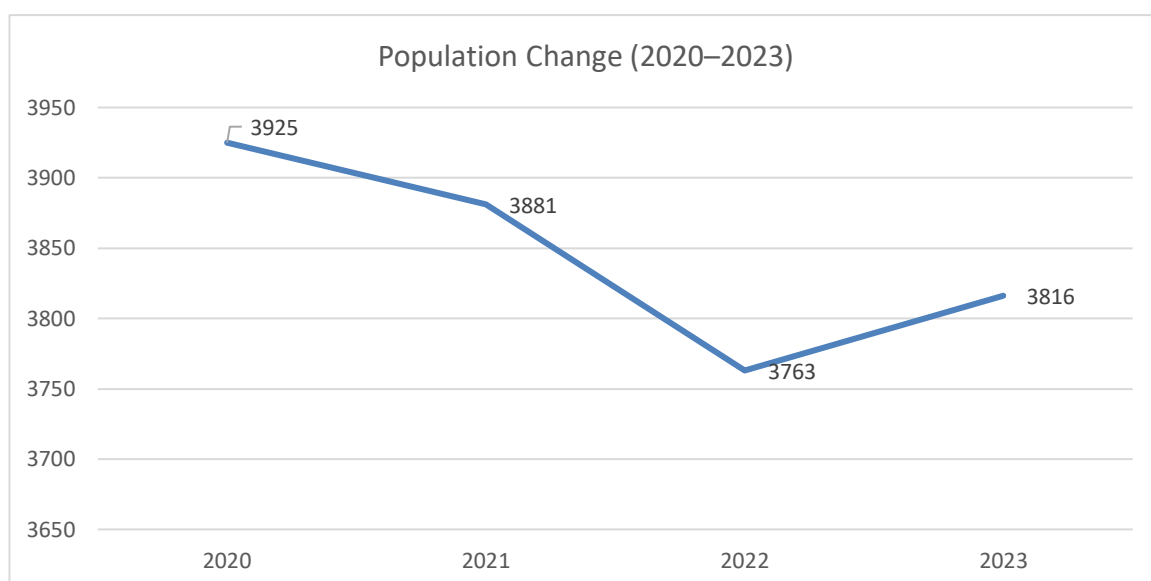


Figure 3: Population Numbers Trend at Dachen Island (2020-2023)

Resource: Government of Dachen

1.2.2 Conflicts between Stakeholders

Because of low sustainability on Dachen Island, this policy analysis conducted the first round

of semi-structured interviews between February and May 2024 and found that the conflicts between diverse stakeholders are widespread, which have hindered sustainable tourism development. There are six distinct conflicts between them, shown in Table 1. Firstly, economic distribution and community benefits emerge as significant issues. Though tourism development has achieved a visible breakthrough in recent years, the lives of most residents haven't had substantial changes because of inadequate income, limited employment opportunities, and low financial accumulation to build businesses. How to create a complete circle that starts from tourism development and ends with community benefits to address the conflicts between small business owners, hotel managers, and locals is a big problem.

In Figure 3, the trend of total income rose from 2017 to 2023, from 21131 to 67663 yuan. In Figure 4, the gross domestic product (GDP) trend shows fluctuation and significant general growth from 2017 to 2023, rising from 11.84 million yuan to 35.75 million yuan. Although both variables present a growth trend, including the income from the person who operates the business on the island, the total income for residents is so tiny. It is almost negligible, less than \$650 annually from 2018 to 2023. Additionally, nearby coastal cities in Zhejiang Province, such as Taizhou, reported per capita incomes exceeding ¥60,000 in 2023. The data further verifies the conflicts between economic distribution and community benefits.

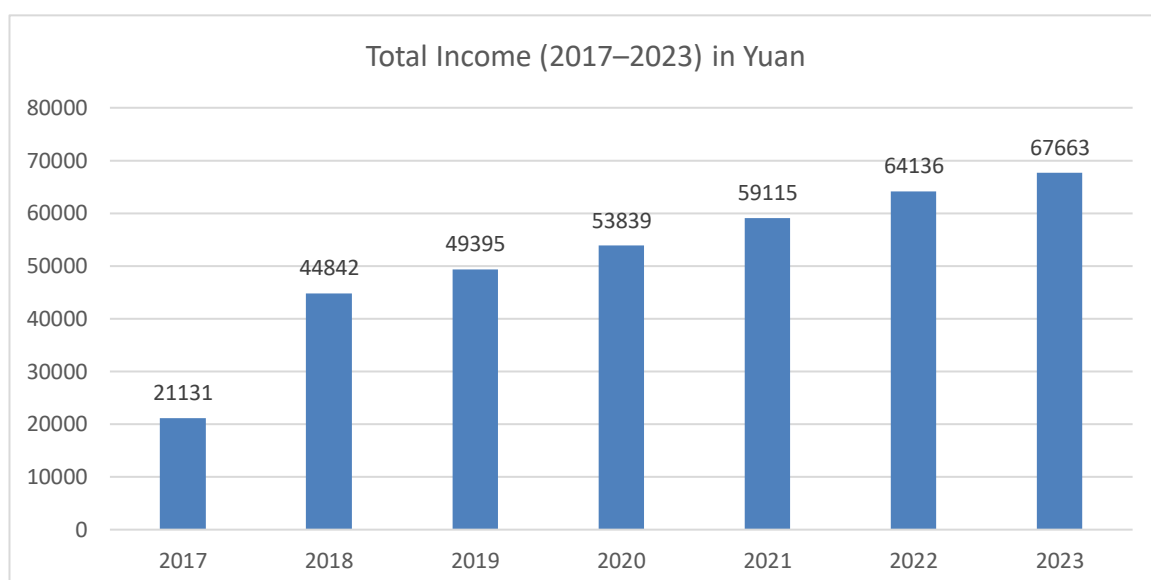


Figure 4: Trend of Total Income for Dachen Island Residents (2017-2023)

Resource: Government of Dachen

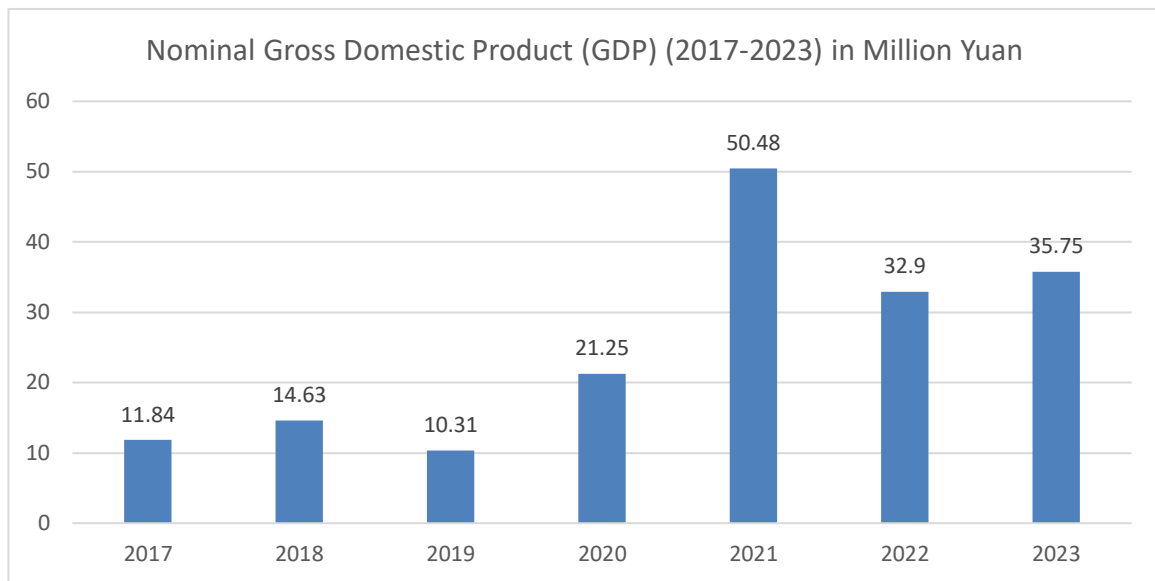


Figure 5: Nominal GDP Trend for Dachen Island (2017-2023) in Million Yuan

Resource: Government of Dachen

Secondly, local and tourist interests highlight another key conflict. Locals are more concerned about the potential adverse effects on their quality of life caused by the expansion of tourism on Dachen Island, such as increased noise pollution, overcrowding, high strain on local infrastructure, and rising living costs. However, visitors mainly focus on enjoyment without the burden of the locals' concerns. The misaligned priorities between the locals and visitors may cause fundamental conflicts.

Thirdly, the seasonal fluctuation of visitors between winter and summer poses management challenges for businesses on Dachen Island. During the summer holiday, with a high number of visitors, overcrowded streets always suffer negative effects, such as rubbish. During the winter holiday, with fewer visitors, the number of people on the streets can be easily counted, leading to the unsustainability of business operations, such as transportation management. The inconsistency caused the unstable development of the economy.

Fourthly, the adaptation of traditional culture to tourism represents a recurring tension. Stakeholders differ on how much local culture should be adapted to meet tourist expectations. The locals and researchers hope to represent the original heritage culture to visitors without deliberately beautifying Dachen Island. However, tourism operators always beautify it to cater to the tastes of the media and visitors, creating attention and topics for

the public on social media.

Fifthly, environmental conservation and tourism development are another central area of contention. Environmental pollution, such as water pollution, has become more serious with tourism development. So, locals worry about further deterioration of the environment, which may cause irreversible effects in the long-term development, and advocate for raising the priority of environmental protection, hoping to find the balance between environment protection and tourism development. However, others have made tourism development a high priority, leading to different opinions on how to strike the right balance.

Lastly, tourism infrastructure and the natural landscape highlight the challenge of maintaining the island's pristine beauty while accommodating modern tourism needs. The construction of tourism infrastructure can conflict with other stakeholders' desire to preserve the natural landscape, especially given limited land space. Stakeholders often disagree on the appropriate scale and location of such development, debating whether the focus should be on prioritizing modernization or environmental preservation.

Persistent stakeholder conflicts stem from these six conflicts, which underscore the complexities of managing sustainable tourism on Dachen Island, where the interests and priorities of stakeholders often diverge, requiring thoughtful political strategies to reconcile these differences.

The primary objectives of this policy analysis are twofold: (1) Assess the feasibility of policy recommendations to potential conflict of interest among the stakeholders. (2) Develop further policy recommendations and an action plan for feasible policy hypotheses to enhance sustainable tourism development.

Table 1: Significant Sources of Conflict among Stakeholders

Order	Concern	Description	Main Stakeholders
1	Economic Distribution and Community Benefits	Despite the development of tourism, the lives of most residents have not undergone substantial changes.	1. Locals
			2. Small Business Owners and Hotel Managers
			3. Officials

2	Locals vs. Tourist Interests	While locals have concerns about negative impacts of tourism on their life quality, visitors primarily focus on enjoying amenities and attractions.	1. Locals 2. Visitors 3. Officials
3	Tourism Seasonality	The inconsistency of visitors creates economic instability and social stress for the community.	1. Locals 2. Small Business Owners and Hotel Managers 3. Officials
4	Traditional Culture vs. Tourism Adaptation	Tourism operators don't objectively represent the local landscape and, to some extent, deliberately beautify it to cater to visitors.	1. Locals 2. Small Business Owners and Hotel Managers 3. Officials
5	Environmental Conservation vs. Tourism Development	Locals worry about the further deterioration of the environment and advocate for raising the priority of environmental protection.	1. Locals 2. Officials 3. Academicians
6	Tourism Infrastructure vs. Natural Landscape	The construction of tourism infrastructures may conflict with other stakeholders' desire to preserve the natural landscape.	1. Locals 2. Officials 3. Academicians

1.3 Research Hypotheses

Through broad research about related literature, this policy analysis would set six solutions as primary research hypotheses from each stakeholder's perspective, according to the data analysis and search relevant literature to support them with a further theoretical basis.

Later, this policy analysis would conduct comprehensive investigations around them, leveraging the semi-structured interviews with different groups of stakeholders to verify the feasibility (Waliga et al., 2013; Saidmamatov et al., 2020). In addition, this analysis would provide policy recommendations and action plans according to filtered hypotheses, hoping to be implemented on Dachen Island in the future.

Table 2 summarizes six solutions for addressing conflicts among diverse stakeholders. Firstly,

as the most sensitive group among stakeholders during the development of Dachen Island, the local community should play an active role in sustainable tourism development through incentive mechanisms compared with other stakeholders (Waligo et al., 2013; Backman & Munanura, 2015). Their life experiences, local knowledge, and sense of ownership are beneficial for the long-term development of Dachen Island (Sheehan & Ritchie, 2005; Salman et al., 2020). Secondly, improving infrastructure and services should also be a high priority, improving locals' quality of life and easing the tour around the island for visitors (Fernandez-Abila et al., 2024, Salman et al., 2021). This includes developing public transportation systems, ensuring reliable water and energy supplies, and upgrading healthcare and sanitation facilities (ChinaDaily.com, 2022; Ali & Li, 2024; Koiwanit & Filimonau, 2023). Thirdly, it is essential to advocate for responsible visitor behavior. Visitors should be aware of their impact on Dachen Island's development through education, roadside alerts, and targeted awareness campaigns (Lee et al., 2017; Lee, 2022). Efforts should also focus on encouraging respect for local customs, adherence to cultural traditions, and compliance with environmental regulations (Mihalic, 2016; Baloch et al., 2022; Salman et al., 2021). Fourthly, diversifying the tourism destinations on Dachen Island is also a good resolution for sustainable tourism development. It can help prevent overcrowding at tourist attractions and provide more choices for tourists while boosting tourist spending by promoting diverse forms of tourism, such as collecting tickets for one part of classical landscapes (Tölkes, 2018; Angelkova et al., 2012). Fifthly, to increase the awareness of sustainable tourism development, educational initiatives should emphasize environmental conservation, cultural sensitivity, and the shared responsibility for preserving the island's unique character (Céspedes-Lorente et al., 2003; Kenawy et al., 2017; Pasape et al., 2013). Sixthly, stakeholders' active participation could increase their awareness of the development situations and consciously contribute to the long-term development (Lecuyer et al., 2018; Getz, 2005; Wondirad et al., 2020). Only with the participation of all stakeholders in dealing with the complex situations could sustainable development tourism on Dachen Island be better (Osman et al., 2018; Lyon et al., 2017).

In summary, although plenty of problems exist and new issues keep popping up, many

interviewees believe that collaborative partnerships between stakeholders could further strengthen sustainable tourism development, fostering shared responsibilities and mutual benefits (Cohen, 2017; McComb et al., 2017; Hardy & Pearson, 2018).

Table 2: Proposed Mechanisms of Conflict Resolution among Stakeholders.

Order	Research Hypotheses	Description	Main Stakeholders
1	Involve Local Communities	Locals should have a voice to be actively involved in the decision-making process.	Locals
2	Enhance Local Collaboration	Hotels' Managers should collaborate with local businesses and residents to ensure tourism contributes directly to the local economy.	Hotel Managers
3	Encourage Responsible Visitor Behavior	Visitors should be encouraged to adopt responsible tourism practices through education, awareness campaigns, and codes of conduct.	Visitors
4	Diversification of Tourism Services	Small business owners and hotel managers should try to diversify tourism services to highlight the island's unique assets.	Small Business Owners
5	Education and Awareness	Education on environmental conservation, cultural sensitivity, and responsible tourism practices should be widely promoted.	All Stakeholders
6	Stakeholder Engagement	Stakeholders should be actively involved in decision-making processes and encourage to engaged in meaningful participation and dialogue.	All Stakeholders

2. Literature Review

2.1 Sustainable Tourism Theory

Sustainable tourism has become a critical topic to discuss as with China's economic development, the demand for travel has gradually increased in recent years, and visitors have more stringent requirements for the choice of destinations. This phenomenon pressures destination designers and policymakers, posing substantial challenges to the

sustainability of tourism attractions. The debate over whether sustainable tourism should develop more on economic, sociocultural, and environmental dimensions and how to develop efficiently in the short run and long run has received more attention (Krajnović et al., 2021), especially for a small and resource-limited island.

Made up of natural environmental elements, such as sunshine, beach, and sea, and with the bonus of historical and cultural factors (Ruggieri & Calò, 2022), islands are popular choices for visitors. Their characteristics, such as “gestalt of remoteness, difference, distance, distinct culture and heritage, wilderness environment, and small size, constitute an attraction” (Krajnović et al., 2021; Brown & Cave, 2010). However, islands are relatively fragile. To have a comprehensive understanding of the development of islands, researchers emphasize the importance of understanding the local situation (Garcia Ferrari et al., 2021). Lim and Cooper (2016) state that though the size of the island is not huge, successful development requires abundant research to figure out the situations, such as: “How a complex and dynamic tourism system can be developed that takes a destination towards an optimal sustainable state to satisfy both visitors and the local community” (p. 89). Cohen (2017) states that “tourism researchers have related to the role of the islands’ inhabitants in tourism development but paid scarce attention to the wider effects of tourism penetration upon island societies” (p. 26), highlighting the limited focus on complex social impacts of the sustainable tourism, which needs for more comprehensive approaches.

Furthermore, Fernandez-Abila et al. (2024) identify five key challenges to achieving sustainable tourism goals: (1) Insufficient enforcement of existing policies and standards undermines efforts to achieve sustainable tourism goals. (2) Residents often feel unsatisfied with tourism development, leading to perceptions of inequity and alienation. (3) Heavy workloads, inadequate compensation, and the unbalance between work and life may negatively impact the well-being of tourism staff. (4) Tourists always worry about the safety and security measures, the quality of tourist attractions, the limited options of accommodations and restaurants, and the preservation and presentation of cultural elements. (5) The overload of tourism activities in a limited time may cause harm to local ecosystems, highlighting the need for more sustainable practices.

Based on the previous research, this policy analysis will further explore the sustainable tourism development on Dachen Island. Through the semi-structured interview for the stakeholders on Dachen Island, including locals, government officials, visitors, small business owners, hotel managers, and academicians, this policy analysis will test the potential solutions to the six hypotheses mentioned in this paper. Furthermore, it will provide the theoretical stakeholder management framework and the practical action plan step by step to enhance sustainable tourism development on small islands. This policy analysis emphasizes the importance of recognizing the feasibility of solutions customized to diverse local contexts by analyzing sustainable tourism development on Dachen Island through “five major sustainability dimensions: economic sustainability, socio-cultural sustainability, environmental sustainability, tourism development, and tourism management” (p. 16) (Ali & Li, 2024). The findings plan to contribute to similar resource-limited contexts with insights for policymakers and practitioners from the analysis of Dachen Island.

2.2 Stakeholder Theory

This policy analysis utilized stakeholder theory to understand the critical role of diverse stakeholders in the process of achieving sustainable development on small islands.

Stakeholder theory suggests that having a better understanding of local stakeholders’ situations, such as the citizens’ attitude toward the development policy, would be essential to conducting further research (Rasoolimanesh et al., 2019) and clarifying the interests and perceptions of stakeholders will play a crucial role to realize the sustainable goal (Gursoy et al., 2019). Furthermore, the researchers highlight that the collaboration between diverse stakeholder groups, even when their individual profits vary, could accelerate sustainable development in a region. By pooling resources, expertise, and funding, these groups can create “multi-stakeholder systems that evolve and transform for survival and success” (Svendsen & Laberge, 2005).

The tourism industry is made up of different stakeholders, such as residents, government officials, and visitors, and they may pursue relatively different profits. The researchers (Angelkova et al., 2012; Byrd, 2007; Björk, 2000) highlight that the active collaboration between diverse stakeholder groups could efficiently overcome the obstacles and accelerate

sustainable tourism development. Through comprehensive coordination, stakeholders can negotiate trade-offs between individual profits and shared goals. This process allows them to align their efforts toward a common sustainable tourism objective, ensuring equitable treatment and shared benefits for all parties involved (Donaldson & Preston, 1995).

During the expanding process of sustainable tourism, an increasing number of stakeholders will be involved, leading to a high frequency of interest interaction and closer coordination during the cooperation, so their expected profits will be bound together more tightly (Sheehan & Ritchie, 2005; Céspedes-Lorente et al., 2003). In this case, both the policymakers and the tourist attraction designers must recognize that the growing number of stakeholders may be inevitably affected by sustainable tourism during the expansion process. As a result, the stakeholder theory will play a comprehensive role in achieving the interests of all parties and making sure the long-term development in one region (Backman & Munanura, 2015; Lyon et al., 2017). However, it suggests a higher requirement to the stakeholder theory to build a reasonable management framework (Getz, 2005), which should balance the multiple stakeholders' profit. This policy analysis will address these challenges in two steps: (1) Figure out the potential profit conflicts among stakeholders on Dachen Island, including locals, government officials, visitors, small business owners, hotel managers, and academicians. (2) Propose policy recommendations to balance the stakeholders' profits and develop an action plan for sustainable tourism development on Dachen Island.

2.3 Metrics of Sustainable Tourism and Stakeholders' Interest

Scholars have different definitions and understandings of stakeholders. For example, Freeman (2001) defined a stakeholder as "any group or individual who can affect or is affected by the achievement of the organization's objectives" (p. 46). However, Donaldson and Preston (1995) believed that people could be included in the stakeholder group only if they have a related profit. According to the stakeholder theory, there are two levels of stakeholders: primary and secondary stakeholders (Waligo et al., 2013; Kenawy et al., 2017). The primary stakeholders are necessary for an organization or a project, as progress cannot be achieved without their support. The secondary stakeholders could make a contribution to an organization or a project, but it is not indispensable for its continuation (Waligo et al.,

2013; Riahi, 2017; Byrd, 2007). Such a classification method of stakeholders is also applicable in the tourism industry. In the tourism industry, the primary stakeholders are tourists, small business owners, local communities, and governments, and the secondary stakeholders are academicians, suppliers who provide the goods and services to the primary tourism business, and media that influence public perceptions of the tourist attraction.

Generally, stakeholders' interests are easily influenced by several factors, such as positive ones, such as economic growth, technological advancements, and government support, as well as negative ones, such as environmental degradation, pandemic and health crises, and community resistance. Narrowing down to the tourism industry, three factors have a relatively high influence on its development (Saidmamatov et al., 2020; Salman et al., 2021; Tölkes, 2018): (1) environmental impacts, (2) sociocultural dynamics, and (3) economic considerations. For example, in the research of the Galapagos Islands (Burbano et al., 2022), the authors identify three stakeholder-driven strategies for promoting sustainable tourism: (1) Increasing the enthusiasm of local stakeholders by actively engaging them in the development of sustainable tourism; (2) Paying more attention to the stability of the community, such as the development of infrastructures, the access to essential service, healthcare, and education; (3) Finding a balancing point between low-cost informal tourism and regulated “high-end” tourism to meet diverse stakeholder interest.

Despite it is undeniable that the active involvement of stakeholders will have a positive effect on sustainable tourism development, identifying the critical stakeholders among the primary stakeholders is an equally critical and essential step (Byrd, 2007). Understanding the variations in profits between different stakeholders' groups (Salman et al., 2021; Tölkes, 2018) and tailoring an incentive framework to build cohesive collaboration relationships between diverse stakeholders (Lee et al., 2017) are crucial in stakeholder management, maximumly avoiding the conflicts between the stakeholders that may negatively hinder the process and put the effort in vain. With a valid management framework, the resources could be allocated efficiently and conserved for the future (Dornier & Mauri, 2018). Furthermore, frequent interactions between different stakeholders would foster tacit understanding and mutual agreement, enabling them to exchange knowledge, capacities, and activities to

optimize tourist attraction (Butler, 2018; Rowley & Moldoveanu, 2003).

The sustainable tourism development is a complex concept, especially when it comes to the nuts and bolts of management in the local. For example, complete medical equipment in hospitals is necessary to prevent unintended accidents in local communities (Hall, 2019), and professional training for positions in travel, accommodation, and restaurants to meet the demanding norms is essential for the long-term development of tourism for the tourism ecosystem (Angelkova et al., 2012). Özgit (2022) supported this opinion that timely supervision and efficient regulation systems can prevent negative consequences (Bramwell et al., 2017) and are necessary guarantees for long-term tourism development. The regulation system and timely supervision require the involvement of stakeholders while also considering the profits of stakeholders. This policy analysis identified locals, government officials, visitors, small business owners, and hotel managers as the primary stakeholders in the context of Dachen Island, with academicians playing the secondary stakeholders. Thus, through investigating their opinions about the development of Dachen Island in the past 10 years, this policy analysis aims to figure out the profit conflicts among the stakeholders in Dachen Island and give policy recommendations to balance stakeholders' profits and action plans to strengthen their collaborations in the future.

3. Research Materials and Methods

3.1 Analysis of Stakeholders' Situation

3.1.1 Conflicts of Interest Among Stakeholders

Tourism development for economic growth and environmental conservation for future generations are two of the most important goals for any tourism destination. However, balancing the conflicts between these two objectives is quite challenging due to the inherent conflicts and complexities between them (Lee, 2022). The conflicts mainly focus on the local level. For example, with the expansion of the tourism industry in one resource-limited area, especially in the islands, the rapid consumption of resources is one of the biggest worries for long-term tourism development. Thus, distinguishing the acceptable boundaries between tourism expansion and resource utilization needs a profound negotiation (Mihalic, 2020).

With the effort of stakeholders, developing sustainable tourism through quantitative indicators is viewed as an excellent solution to balance the conflicts between tourism development and environmental conservation. However, it shifts to other complex problems related to stakeholders. Firstly, a significant challenge is objectively recognizing issues during the process of tourism development and solving the problems with collective efforts while pursuing reasonable profit (Baloch et al., 2022; McComb et al., 2017). Furthermore, stakeholders' interests may change frequently with the development of tourism destinations over time (Berardi, 2013). If stakeholders can't deal with this problem correctly, the actions of some stakeholders may impede the development of sustainable tourism (Salman et al., 2020; Salman et al., 2021; Tölkes, 2018). Consequently, customizing a practical framework to manage the profits of stakeholders and designing appropriate incentives to boost stakeholders' enthusiasm have decisive roles in achieving sustainable tourism and environmental conservation (Salman et al., 2020).

3.1.2 Mechanisms for Resolving Stakeholder Conflicts

Several researchers found it difficult to identify microscopic conflicts between stakeholders (Lee, 2022), though the involvement of stakeholders plays a vital role in the development of sustainable tourism in a tourism destination (Pasape et al., 2013; Wondirad et al., 2020; Cobbinah et al., 2015). Based on the previous research, it showed that the sustainability of tourist destinations depends on the interests of stakeholders to a certain extent (Cobbinah et al., 2017; Wei & Yang, 2013). With the participation of stakeholders, the ecotourism destination will only last for a while (McComb et al., 2017). Researchers, such as Murphy (Murphy, 1985), supported this viewpoint and proposed that "more actors should become involved, those who are experts and those who are affected" (p. 172).

Beyond the participation of the stakeholders, how to make them work together efficiently is the next problem worth discussing. One of the key reasons is that some stakeholders may pursue overlapping interests or competing priorities, in which one stakeholder attains their interests through influencing others' decision-making or resource allocation. Wu et al. (2021) identified that locals' attitudes toward tourism development are of high priority for the development of the tourism industry. As the primary stakeholders, locals are both the

main beneficiaries of community improvements from sustainable tourism and the most concerned about its potential strain on their hometown. Research on sustainable tourism shows that it's essential to get the support of locals (Lasso & Dahles, 2018). In this case, the key motivation for the locals is the expectations for the development of the community and the improvement of social well-being (Yolal et al., 2016). In other words, if they realized that their contributions could bring more in the future return, they would be willing to be involved in tourism growth for the long run. Therefore, the government should implement "keep down" measures for the locals to protect their profits and motivate them. Based on the previous research and the above analysis, this policy analysis intends to utilize semi-structured interviews with the stakeholders on Dachen Island. It plans to put forward some effective mechanisms and practical action plans for balancing the potential conflict of interest among stakeholders on Dachen Island.

3.2 Questionnaire Development

To better understand the actual situation on Dachen Island, this policy analysis was conducted multiple times and successfully engaged with the local community and government, aided by one government official. After exchanging views several times, this policy analysis gained a deeper understanding of the current situation on Dachen Island and the conflicts among various stakeholders.

After conducting several research studies, the questionnaires for each stakeholder were designed by combining currently published papers in the field of sustainable development and discussing them with experienced officials on Dachen Island for several years. Following the standards, including clarity, goal-orientedness, logical structure, and conciseness, the interview questions were carefully crafted to elicit precise and relevant responses from official perspectives. Appendix A contains five general questions for all respondents to make sure their understanding of the concept of sustainability aligns with the long-term sustainable tourism development of Dachen Island and their subjective comments on the achievement of the Government of Dachen Island in the last 10 years. In addition, specific questions are directed to different stakeholders to test the feasibility of each hypothesis, considering their responsibility in the conflicts among stakeholders.

3.3 Semi-Structured Interviews

After the primary stage of the local investigation and questionnaire design, the second round of semi-structured interviews is considered an excellent strategy for collecting data and gaining a better view of the sustainable tourism development on Dachen Island. The interviews were conducted both online and offline, lasting about 60 minutes. The interview was mainly in the form of dialect in Taizhou City, mainly in the casual and relaxed atmosphere. During the interview process, the interviewers would guide the interviewees in answering the questionnaires and recording the answers.

Because of the semi-structured interviews, there was a very high demand for the quality of interviewees, who should have a certain level of understanding of sustainable tourism development. To reduce the potential bias during the interview process, three criteria were considered when choosing the interviewees on Dachen Island: (1) finding the primary target stakeholders in the tourism industry, including locals, government officials, visitors, small business owners, hotel managers, and nongovernment organizations (Miller & Twining-Ward, 2005; Björk, 2000); (2) selecting the interviewees from diverse backgrounds, with a focus on their ability to recognize and evaluate the sustained efforts made by the local government toward implementing sustainable tourism development over the past 10 years; and (3) understanding the particularity or limitation of Dachen Island, such as the extended distance from the relatively bustling mainland, the restriction on arbitrary development due to limited area, and the natural limitations on development because of frequently adverse weather conditions. According to these three criteria, there were 29 selected interviewees on Dachen Island. The details of the interviewees are shown in Table 3.

Table 3: Selection of Stakeholders

Order	Research Hypotheses	Main Stakeholders	Number	Brief Description
1	Involve Local Communities	Locals	9	4 fishermen, 3 employees, and 2 retirees.
2	Enhance Local Collaboration	Hotel Managers	5	Working at five big hotels for more than 7 years.
3	Encourage Responsible Visitor	Visitors	7	5 regular visitors and 2 visitors (first

	Behavior			time).
4	Diversification of Tourism Services	Small Business Owners	4	Owners of restaurants, convenience stores, and cafes.
5	Education and Awareness	All Stakeholders	27	Including extra 2 officials, who are director of the publicity department, and 2 academicians who specialize in sustainable tourism development.
6	Stakeholder Engagement	All Stakeholders	27	Same as 5

* Academicians don't live on Dachen Island, but they know its nature and inhabitants.

In the interview process, the questions have three levels in total. The first level aims to assess the stakeholders' understanding of general terms related to sustainability in the context of Dachen Island, such as the basic concept of sustainability and how to achieve sustainability. In addition, the questions focus on the government level. The stakeholders were asked about the government's action to achieve sustainable development in the last 10 years and their accomplishments during this process in "five major sustainability dimensions: economic sustainability, socio-cultural sustainability, environmental sustainability, tourism development, and tourism management" (p. 16) (Ali & Li, 2024). Finally, depending on their understanding of the conflicts, questions would delve deeper into the feasibility of each hypothesis to address the conflicts of stakeholders they are involved in and assess their enthusiasm for implementing the proposed initiatives.

The last-level question interviews were divided into three steps: Firstly, this policy analysis will clearly provide the background with specific examples of stakeholder conflicts, combined with their understanding, helping them gain a better view of Dachen Island's situations and the potential solutions to problems. Secondly, the conversation would focus on assessing the current situation and determining whether the hypothesis has been implemented or changes have been made. If the answer is yes, this policy analysis will conclude the assessment, including implementation situations and further strategies. If the

answer is no, the interview will turn to the third level. Thirdly, this policy analysis would explore stakeholders' perspectives towards this strategy and their opinions on feasible strategies to address the challenges.

4. Results and Analysis

4.1 Stakeholders' Understanding of Sustainability

Interviews were analyzed using thematic analysis. Figure 1 illustrates about 20 high-frequency words mentioned by stakeholders during the interviews, excluding the meaningless words, such as he, she, and that. The size of each word reflects its frequency of mention, with more prominent words indicating higher frequency. Key phrases such as "Tourism," "Economic," "Locals," "Infrastructure," "Visitors," and "Dachen" were widely mentioned by stakeholders. The meanings behind these words represented the primary concerns and common focus areas for the stakeholders in general.

Sustainability is a broad concept with diverse meanings in different circumstances. The result of semi-structured interviews showed they understand the following aspects, such as safeguarding marine life, supporting eco-friendly accommodations without overexploiting resources, and organizing cultural events highlighting local customs and history. In summary, the stakeholders think sustainability on Dachen Island means "preserving the island's environmental, social, and cultural characteristics and distributing tourism benefits to the community inclusively and equitably" (p.7) (Ali & Li, 2024). Additionally, different stakeholders gave diverse explanations about sustainability from their perspectives. Compared to other stakeholders, the government received relatively more considerable pressure: (1) They were well aware of the challenge of insufficient resources and budget allocations on Dachen Island. It would be a significant barrier to future expansion and may cause potential conflicts between different stakeholders. (2) They stated that it was challenging to call for all stakeholders to coordinate their profits without necessarily a clear return or the return they expected in the short-term or long-term development.



Figure 6: Major interview word frequencies with 29 stakeholders

Furthermore, this policy analysis sought to understand the acceptance of the policy by the local community and their awareness of the effort by the government, such as the investment in infrastructure development in the last ten years and tourism programs aimed to preserve the historical heritage and environmental sustainability. This policy analysis received mostly positive feedback from the interviews, particularly from locals. Firstly, they highly praised the government's policy, which sets the fishing restriction from May to September each year and strictly prohibits fishing during this period. These behaviors not only help restore marine ecosystems but also keep a unique marine environment in the long-term sustainability of fishery resources, such as the regular semi-diurnal tide, high wave, and tidal resources. Secondly, besides the fishing ban, Dachen Island also adopted other strategies that the local community highly supported and participated in, such as garbage classification and coastal cleanup initiatives. Through the long-term implementation, the island has made significant improvements in environmental quality in recent years, and the stakeholders are increasingly aware of the importance of sustainability.

4.2 Stakeholders' Perceived Assessment of Sustainable Tourism Development

One official stated, "As part of the Jiaojiang District in Taizhou City, the local government of

Dachen Island maintains highly close communication and coordination with its higher authorities- the Taizhou City Government and the even higher-level Zhejiang Provincial Government.” The long-term development of Dachen Island aligns well with the strategic concept of Taizhou City, Zhejiang Province, and even the national level. Furthermore, because of the outstanding achievement in the “Zero Carbon Emission” project and its political importance, the development of Dachen Island was valued by the upper government. These frequent interactions with other departments, such as the ecological environment department, contributed to the development of Dachen Island, including gaining tremendous resources and development opportunities, anticipating the direction of growth in advance, and getting advice from diverse experts.

Based on the semi-structure interview results, this policy analysis analyzed the accomplishments of the sustainable tourism development on Dachen Island in the last 10 years from stakeholders’ perspectives through “five major sustainability dimensions: economic sustainability, socio-cultural sustainability, environmental sustainability, tourism development, and tourism management” (p. 16) (Ali & Li, 2024) (Table 2).

One of the most excellent accomplishments is the infrastructure development in the last 10 years. To satisfy the basic needs of life and lay the groundwork for long-term growth, Dachen Island has invested in infrastructure development. For example, the improvement of energy generation and transmission is one case with profound effects. Thus, before the Integrated Energy Infrastructure Projects, access to the necessary energy was relatively limited, and the power supply was unstable on Dachen Island. Between 2007 and 2024, the government invested billions of yuan to improve energy issues on Dachen Island. Among them, three infrastructure projects have been impactful, significantly contributing to the island’s development of zero-carbon emission and gaining an excellent reputation around the world in recent years: 34 Windmills Energy Generation Project, China’s First Hydrogen Pilot Project, and The World’s First 35-kilovolt Flexible Low-frequency Power Transmission System.

Table 4: Accomplishments in the Last 10 Years

Order	Dimensions	Description
1	Environmental	1. Implementation of numerous eco-friendly practices, such as marine

		litter management and garbage sorting and recycling.
		2. Strengthened the publicity of environmental protection.
2	Economic	1. A revolutionary investment in infrastructure development, including energy transaction and island ports. 2. Booming industries, such as fishery and catering.
3	Social-cultural	1. Cultural preservation and expansion, including an established military base and island custom celebration. 2. Frequent communication between officials and locals.
4	Tourism Development	1. Offering a diverse range of tourism experience, such as eco-tours and cultural immersion programs. 2. Encouraging visitors to be responsible by providing effective education and responsible tourism practices through interpretive guides and visitor centers.
5	Tourism Management	1. Establishing a regulatory framework, including zoning regulations, environmental impact assessments, and tourism guidelines, to ensure responsible and sustainable development. 2. Fostering stakeholder's collaboration between locals, community centers, and local businesses.

4.3 Stakeholders' Feedback on Each Hypothesis

For the feedback from each stakeholder, this policy analysis will analyze them in the order of six hypotheses, focusing on relevant stakeholders' perspectives, giving the feasibility of them, which lays the groundwork for the subsequent analysis, including the policy recommendation and action plan.

4.3.1 Hypothesis 1: Involve Local Communities

For hypothesis 1, the locals expressed great appreciation for the second interview about stakeholders' conflicts after April 2024 since they have a strong desire to voice their opinions about their current situations and provide suggestions for further improvement.

Firstly, they highly agreed with the conflicts mentioned in this policy analysis and believed that current conflicts between stakeholders are not limited to what is mentioned in Table 1. They stated that some of the conflicts have lasted for a long time, even about one decade,

while new conflicts often arise because of complicated situations on Dachen Island. For example, the conflict between economic distribution and community benefits lasted over five years. When the officials decided to revitalize the economy through tourism development, the community benefits were put aside to some extent.

Secondly, they told me that they anticipated seldom organized conversations between stakeholders for several reasons: (1) According to what they know, the total number of discussions between stakeholders is less than 5 times each year, leading to fewer opportunities to speak out their voices during the decision-making process. (2) Even though the representatives are invited, sometimes they are not on Dachen Island, so they have to miss the opportunity to focus on their business outside of Dachen Island or visit their relatives in other cities.

Thirdly, they expressed an apparent willingness to participate in the discussion related to the conflicts between stakeholders and provided three suggestions to officials to strengthen their voices and prevent being sacrificed by tourism development: (1) The number of representatives in the locals, which are about four currently, should be expanded so that diverse voices from different professions could be heard by government and the locals will not be absent from the discussion. (2) The fixed discussions within locals and between diverse stakeholders to change the situations and get timely support are highly recommended. (3) It's essential to give some rewards to the locals who actively give their advice, considering that the locals are one of the most critical primary stakeholders, and some locals are pessimistic about their quality of life on the island.

4.3.2 Hypothesis 2: Enhance Local Collaboration

For hypothesis 2, hotel managers generally showed a negative attitude toward this policy recommendation. Considering Dachen Island's limitations, there are many predictable obstacles for them.

Firstly, they recognized that the collaborations between stakeholders were limited for several reasons: (1) The total number of job opportunities is limited since the average size of hotels is small, typically ranging from 10 to 50 rooms. In addition, it's difficult to expand their business, considering the limited land on Dachen Island and the scale of the current number

of travelers. (2) In terms of business collaboration, most hotel suppliers are not based on Dachen Island due to the limited development of local industries. The low demand for hotel-related products has hindered the establishment of local factories.

Secondly, they also found it difficult to provide job opportunities to the locals. The biggest problem is the suitability of the job positions: To pursue a brighter career path, most younger and middle-aged generations have moved away from Dachen Island, while the older generation, with limited labor capacity, remains here for the rest of their lives. In this situation, they are reluctant to recruit the remaining island residents and prefer to offer opportunities solely to their relatives.

Thirdly, they stated that “To be honest, the best help from the officials would be to further enhance the attractiveness of tourism and increase the number of visitors. Any other forms of support may not provide substantial benefits recently.” The success of their businesses highly depends on the overall development of tourism on Dachen Island. If the size of visitors increases gradually over the years, they will consider expanding the size or number of hotels, leading to more job positions preparing for the locals. However, they believe that with tourism development over the next 3 to 5 years, the capacity of tourism will become more apparent, creating more job opportunities for local residents.

4.3.3 Hypothesis 3: Encourage Responsible Visitor Behavior

For hypothesis 3, all visitors fully supported the strategy and hoped to contribute to sustainable tourism development in the future.

Firstly, the propaganda had really ramped up compared to their previous experience on Dachen Island, discovering more publicity material on the ship when they were boarding and throughout the island itself, including banners, brochures, and environmental awareness campaigns. From these details, they felt the importance of environmental protection and clear goals for sustainable tourism development. These strategies are very helpful for strengthening the awareness of environmental protection for visitors.

Secondly, they indicated that as a visitor on Dachen Island, they understand their responsibilities and obligations, particularly in terms of respecting local customs, adhering to

environmental guidelines, and supporting sustainable tourism practices during their stay. They believed that they could actively contribute to sustainable tourism development in the following ways: (1) Putting the garbage in your pocket if there is no garbage around or the garbage is full, especially during the peak travel period. They sometimes found that there was so much trash that it fell out of the trash can, causing litter to scatter around the area and negatively impacting the island's cleanliness and natural beauty. (2) Using reusable bottles and bags, which are more eco-friendly to the environment and cause less. (3) Strictly follow the rules on the island, including the traffic rules and guidelines for environmental protection, such as proper waste disposal and respecting restricted areas.

Thirdly, for long-term development, they mentioned two perspectives: (1) Choose eco-friendly accommodations and tour operators that prioritize environmental practices to reduce waste, conserve energy and water, and use sustainable materials. (2) Recommend the visitors for public transportation, biking, or walking. Both direct advice through informational signage and guidelines and indirect encouragement, such as decreasing the price of public transportation and biking, can be considered.

4.3.4 Hypothesis 4: Diversification of Tourism Services

For hypothesis 4, small business owners showed great expectations and confidence in sustainable tourism development in the future, but most of them hope to keep the current situation and not expand in the short term.

Firstly, they agreed with this opinion since the service choices on Dachen Island are currently limited. For example, there are very few dining options, which are necessary for visitors. As shown in Table 5, the island has only one café shop, two milk tea shops, three barbecue restaurants, and 31 general restaurants, which may not adequately meet diverse visitor preferences. Further improvements in the variety and quality of services could enhance the overall visitor experience and increase profit.

Secondly, they summarized three limitations for the diversified tourism plan and hoped to maintain the status: (1) The land space is limited on Dachen Island, and only a small part of the land is unused. All residents there could only keep current real estate properties and couldn't gain more land, which is the restriction for diversified tourism activities. (2) The

ceiling of tourism development on Dachen Island is predictable for Lower Dachen Island due to the current limitations in infrastructure and service options, and Upper Dachen Island is still under development. While the island has made progress in attracting visitors, the lack of diverse dining, entertainment, and accommodation choices restricts its potential for long-term growth. (3) From a business perspective, the return on investment cycle is very long. The cost to improve the infrastructure and build a supply chain is high, but the income is relatively low, and there is a small profit margin.

Thirdly, they had different perspectives on this problem. Some of them, who have operated their businesses on Dachen Island, argued that it's better to maintain the current situation due to unstable business phenomena: (1) The fluctuation between each year is relatively high. The operating effect from 2018 to 2020 is better than from 2022 to 2024 due to external factors, such as the coronavirus disease. (2) The seasonal fluctuation in visitor numbers is significant, with far more tourists choosing to visit during the summer than in the winter. In fact, the number of visitors in the summer is two to three times higher than in the winter. However, a small number of them hold an optimistic attitude and have the idea of expansion in the future. They believed that the commercial layout on Dachen Island began early have numerous advantages. For example, they could align their business strategies with government requirements.

Table 5: Service Choices on Dachen Island

Order	Businesses	Quantity
1	Café Shops	1
2	Milk Tea Shops	2
3	Barbecue Restaurant	3
4	General Restaurant	31
5	Supermarkets	7

Resource: Dachen Island Government

4.3.5 Hypothesis 5: Education and Awareness

For hypothesis 5, all stakeholders supported increasing the educational intensity to improve

stakeholders' awareness. However, they faced significant challenges and emphasized the importance of effective strategies.

Firstly, they reflected that the current educational promotion about sustainable tourism development is not comprehensive. It focuses too much on surface litter contamination, such as garbage sorting, but ignores other aspects, such as residents' casual placement of fishing gear. The work was highly complex, as it required considering numerous factors to address the needs of various stakeholders.

Secondly, they believed that collaboration between universities would be a great idea. Experts from Tsinghua University or Zhejiang University could enhance their understanding of sustainable development and provide solid suggestions on how to balance societal progress with business development. They suggested that the government could facilitate connections with these experts to foster long-term cooperation.

Thirdly, they thought that proper reward and punishment mechanisms are key and gave the recommendation as shown in Table 6: (1) For the stakeholders of hotel managers and small business owners, the logic of reward and punishment should be the same, considering breaking the policy requirement as a business risk and giving an official recommendation, such as an environmental logo, if they pay attention to sustainable tourism development. (2) For the stakeholders of locals and visitors, encouraging strategies are advocated. Small cash rewards and consumption coupons will be provided if they follow the policy requirement, while relatively large cash penalties will be imposed if they breach them. Following this, they added that it takes a lot of effort to develop a reasonable standard.

Fourthly, all stakeholders expressed strong interest in taking responsibility for sustainable tourism development in the future, even though sometimes they neglect some policy requirements. For example, one business owner said, "Many times, it's not that we don't want to respect the policy of sustainable tourism development, such as proper waste disposal, but rather that we are unaware of the impact these actions have on sustainability."

4.3.6 Hypothesis 6: Stakeholder Engagement

For hypothesis 6, the stakeholders gave positive attitudes to this recommendation,

highlighting that the construction of this island needs everyone's efforts, and they want to make a contribution to it.

Firstly, they mentioned that the island is not big, so most of the residents know each other and have strong connections. For example, they always have casual chats after a meal about what happened on the island recently. However, such chats seldom make a contribution to enhancing the collaboration between stakeholders. They hoped that the government could get the stakeholders together and organize regular conversations. Among them, the stakeholders of locals expressed the strongest desire.

Secondly, they agreed that regular discussions are necessary, but they want to go for the quality of the discussion rather than the numbers of the meeting. Besides that, they recommended that the government should use its initiatives to understand stakeholders' status better, strengthening the private conversations between each of them and monitoring their behaviors on Dachen Island. In this case, they could take advantage of the collected information and organize the meetings with a clear topic to focus on.

Thirdly, from simple desires to profound effects, they put forward a lot of expectations for the conversations between stakeholders: (1) Strengthen the connection with each stakeholder and even build stronger relationships. Dachen Island is not big, and most of the residents gather on the most popular streets, so it's necessary to keep good relationships, help each other if necessary, and even develop as business friends in the future. (2) Share common goals of sustainable tourism development and work together. As the residents of Dachen Island, building a happy home is their unity of purpose. They hoped that they could exchange their ideas or problems and adjust their behaviors to achieve them.

According to the semi-structured interview, the results of the research hypotheses are shown in Table 6: Four hypotheses are considered feasible strategies, while two hypotheses are denied by main stakeholders for several reasons. The following part about policy recommendations and action plans will revolve around four hypotheses.

Table 6: The Result of Research Hypotheses

Order	Research Hypotheses	Main Stakeholders	Result
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1	Involve Local Communities	Locals	Yes
2	Enhance Local Collaboration	Hotel Managers	No
3	Encourage Responsible Visitor Behavior	Visitors	Yes
4	Diversification of Tourism Services	Small Business Owners	No
5	Education and Awareness	All Stakeholders	Yes
6	Stakeholder Engagement	All Stakeholders	Yes

5. Policy Recommendation and Action Plan

Based on the research hypotheses' findings, to solve the conflicts between stakeholders, this policy analysis prioritizes Hypothesis 5 (Education and Awareness) and Hypothesis 6 (Stakeholder Engagement) as the foundation for policy recommendations to promote sustainable tourism development on Dachen Island. To make the policy recommendation simple and efficient, the core aspects of Hypothesis 1 (Involving Local Communities) will be integrated into Hypothesis 6, while the details of Hypothesis 3 (Encouraging Responsible Visitor Behavior) will be incorporated into Hypothesis 5. Therefore, two policy recommendations, **Enhance Stakeholder Education to Raise Awareness and Improve Stakeholder Engagement to Foster Better Coordination**, will be proposed, and corresponding action plans will be developed based on these recommendations.

5.1 Enhance Stakeholder Education to Raise Awareness

The government should consider enhancing stakeholders' education to increase the awareness of Dachen Island's long-term sustainable tourism development plan. Most stakeholders only focus on their business or personal life quality, but don't care too much about overall tourism development, which is detached from the island's development. In this case, education to increase their awareness of sustainability on Dachen Island is one of the most essential strategies. In addition, all stakeholders, including those from the business and political sectors, support this strategy and will cooperate with its implementation.

Through this policy, residents and stakeholders on Dachen Island will gain overall development and a better understanding of future development. Only by achieving the

island's long-term development goals can industrial development become smoother. Thus, it could finally improve the quality of life of the residents.

5.1.1 Policy Details

For education and awareness (Hypothesis 5), there are four comprehensive policy details:

The first step is to customize the educational materials under the context of Dachen Island.

Strengthening collaboration with academic institutions, such as Tsinghua University, will be

the first priority. For long-term development, guidance from academicians who have

conducted several research on these areas could contribute to sustainable tourism

development on Dachen Island: (1) Besides building a research center, the government

should invite experts to conduct practical research and seek advice from them to tailor

educational materials that are specifically suited to the context of Dachen Island. (2) Inviting

experts to give a speech regularly to stakeholders could also enhance stakeholders'

awareness and strengthen their confidence. This collaboration bridges academic knowledge

with community needs, fostering long-term stewardship of the island's resources.

The second step is to develop comprehensive educational campaigns. With expert-informed

materials, the government should improve the follow-up works, such as further refining to

align with each group's priorities—for instance, waste management guides for households,

sustainability certifications for local businesses, or eco-tourism etiquette for visitors.

Materials must be updated monthly or quarterly to reflect evolving challenges and

disseminated through accessible channels, such as door-to-door distribution, mobile apps,

or community boards. To ensure adoption, campaigns should pair educational resources

with practical incentives, like recycling rewards for residents or sustainability badges for

compliant businesses, embedding sustainable practices into daily routines.

The third step is to integrate education into different stakeholders' experiences. For

example, for visitors, the government should encourage responsible visitor behavior

(Hypothesis 3), incorporating sustainability education into every stage of their journey

through interpretive guides, visitor centers, and interactive activities. These materials could

be posted anywhere on the island with a subtle reminder. Specifically, when taking a ship to

Dachen Island, televisions can be installed on the ship to broadcast relevant promotional

content or a Dachen Island documentary for tourists.

The fourth step is to establish a feedback loop and evaluation system to monitor, assess, and adapt the education and awareness initiatives. This involves developing KPIs (e.g., stakeholder engagement or behavioral changes) to measure the impact of campaigns while collecting regular feedback through surveys to understand stakeholder perceptions and identify gaps. Data and insights should then inform adaptive strategies, such as refining content frequency, adjusting delivery methods, or introducing new interactive tools to better align with stakeholder needs. Empowering local residents as “sustainability ambassadors” to lead workshops or tours can foster community ownership and culturally relevant knowledge-sharing. Finally, transparent public reporting (e.g., annual sustainability reports and social media updates) ensures accountability, maintains trust and reinforces collaboration with academic partners and stakeholders. Together, this dynamic approach ensures initiatives remain responsive, effective, and aligned with Dachen Island’s long-term sustainability goals.

5.1.2 Action Plan

The action plan will be divided into three stages, spanning from 2025 to 2029. The short-term actions in 2025 primarily focus on customizing the educational materials to the context of Dachen Island, laying the groundwork for educational campaigns, and integrating education into stakeholders’ experiences. In the medium-term actions expected from 2026 to 2027, the government should start to develop comprehensive educational campaigns and design a strategy to integrate education into different stakeholders’ experiences. In the long-term actions expected from 2028 to 2029, a feedback loop and evaluation system will hugely enhance educational quality and policy efficiency.

Table 7: Action Plan for Education and Awareness

Step	Main Content	Action Plan
1	Customize the educational materials under the context of Dachen Island	Short-Term Actions (2025)
2	Develop comprehensive educational campaigns	Medium-Term Actions (2026-2027)

3	Integrate education into different stakeholders' experiences	Medium-Term Actions (2026-2027)
4	Establish a feedback loop and evaluation system to monitor, assess, and adapt the education and awareness initiatives	Long-Term Actions (2027-2029)

5.1.3 The Role of Dachen Island Government

Dachen Island government will play an essential role in implementing these policies in the next 5 years. From the perspective of Dachen Island's internal governance, the government could serve as an educational organizer, write materials according to the situation on Dachen Island, and establish a feedback loop and evaluation system, while from the perspective of Dachen Island's external connection, the government could officially represent Dachen Island to build a strong collaboration with academic institutions, benefiting the awareness of stakeholders and strengthening long-term development.

Table 8: The Role of Dachen Island Government

Order	How Government Could Help	What This Addresses
1	Serve as an educational organizer	Set the uniform time and place for stakeholders to attend the courses, increasing the efficiency.
2	Write materials tailored to Dachen Island	Coordinate with different groups of stakeholders to customize the educational materials for stakeholders.
3	Build connection between Dachen Island and academic institutions	Make and keep the connection with experts from academic institutions.
4	Establish a feedback loop and evaluation system	Design key performance indicators (KPIs), regularly collect feedback through surveys, and develop an evaluation system to promote among each group of stakeholders.

5.2 Improve Stakeholder Engagement to Foster Better Coordination

The government should also consider improving stakeholder engagement to foster better coordination between stakeholders toward the long-term goal of sustainable tourism development (Koiwanit & Filimonau, 2023). After increasing the awareness of Dachen

Island's long-term plan, stakeholders need help from the government to have a closer collaboration, which could accelerate the achievement of the goal. In addition, there are conflicts between diverse stakeholders that need to be addressed. Thus, this policy is critical in this process (Roxas et al., 2020).

Through this policy, residents and stakeholders on Dachen Island are able to thoroughly negotiate the problems they encounter and address the conflicts between them. Only by fostering dialogue and collaboration among stakeholders can the development process be accelerated effectively. Thus, it could boost multi-dimensional development, including economic, social, and cultural.

5.2.1 Policy Details

For stakeholder engagement (Hypothesis 6), there are four comprehensive recommendations: The first step is to institutionalize regular, structured stakeholder dialogues to ensure consistent communication and collaborative decision-making. This involves establishing monthly official meetings with inclusive representation from all key groups—local residents, government officials, business owners, visitors, and academics—to align priorities, share updates, and address emerging challenges. By maintaining a predictable forum for open exchange, stakeholders can proactively identify and resolve conflicts (e.g., competing resource-use interests or tourism development concerns) before they escalate while building trust through transparency. Shared insights from these dialogues enable stakeholders to collectively analyze long-term risks and opportunities, such as balancing economic growth with environmental preservation and co-create adaptive strategies. Over time, this process fosters accountability, reduces fragmentation, and ensures all voices inform Dachen Island's sustainable tourism vision.

The second step is to foster structured internal discussions among stakeholders, particularly emphasizing dialogue within individual stakeholder groups (e.g., local residents and businesses) to align priorities and strengthen cohesion (Hypothesis 1). This involves creating platforms for stakeholders within the same group to exchange ideas and perspectives, ensuring their concerns and insights are collectively voiced. Representatives from each group should then relay outcomes from cross-stakeholder dialogues back to their members,

fostering transparency and continuity between broader collaborations and internal group dynamics. By synthesizing key insights from these internal discussions, groups can refine their positions and contribute more effectively to regular multi-stakeholder dialogues, enhancing the quality and inclusivity of decision-making. This dual focus—on intra-group cohesion and inter-group communication—ensures that locals, as a critical stakeholder group, remain central to shaping sustainable development strategies for Dachen Island.

The third step is to establish a stakeholder collaboration committee—a representative body comprising leaders from all stakeholder groups (e.g., local residents, businesses, tourism operators, and academic partners)—to formalize dialogue, align priorities, and drive coordinated action. This committee would serve as a platform to discuss challenges, opportunities, and shared goals, ensuring equitable participation in decision-making processes. By convening regular meetings, the committee can foster trust, resolve conflicts, and co-design cross-sectoral strategies (e.g., sustainable resource management, cultural preservation, or infrastructure development). Over time, this structured collaboration will institutionalize partnerships, streamline accountability, and accelerate the implementation of initiatives that balance economic, environmental, and social priorities. Such a committee not only strengthens collective ownership of Dachen Island’s tourism development but also ensures long-term adaptability and resilience in achieving sustainability targets.

The fourth step is to operationalize and evaluate collaborative strategies through targeted pilot projects and adaptive management, transforming dialogue and planning into measurable action. Building on the stakeholder committee’s priorities, phased pilot initiatives—such as eco-tourism trails, waste reduction programs, and cultural heritage campaigns—should be launched with clear roles, timelines, and success metrics (e.g., reduced plastic waste and increased visitor engagement). Concurrently, it is necessary to implement a monitoring system to track progress using quantitative data (e.g., environmental indicators, tourist demographics) and qualitative feedback from stakeholder dialogues, with regular transparent reporting to all groups. By iteratively refining initiatives based on results—scaling successes and redesigning underperformers—this step ensures accountability, adaptability, and tangible progress toward embedding sustainability into

Dachen Island's identity and tourism framework.

5.2.2 Action Plan

The action plan will also be divided into three stages, ranging from 2025 to 2029, aiming to enhance coordination between stakeholders. In the short-term actions in 2025, the core goal is to institutionalize regular, structured stakeholder dialogues and foster structured internal discussions among stakeholders, scheduling and hosting the first stakeholder meeting to set the agenda and establish clear goals, and launching an initial communication campaign to promote the importance of collaborative engagement. In the medium-term actions expected from 2026 to 2027, after fostering a deeper understanding among stakeholders, the government is supposed to accelerate the collaboration between them to foster economic development in the long run by establishing a stakeholder collaboration committee to formalize dialogue. In the long-term actions expected from 2028 to 2029, Dachen Island will operationalize and evaluate collaborative strategies through targeted pilot projects and adaptive management, transforming dialogue into measurable action.

Table 9: Action Plan for Stakeholder Engagement

Step	Main Content	Action Plan
1	Institutionalize regular, structured stakeholder dialogues	Short-Term Actions (2025)
2	Foster structured internal discussions among stakeholders	Short-Term Actions (2025)
3	Establish a stakeholder collaboration committee to formalize dialogue	Medium-Term Actions (2026-2027)
4	Operationalize and evaluate collaborative strategies through targeted pilot projects and adaptive management	Long-Term Actions (2027-2029)

5.2.3 The Role of Dachen Island Government

Dachen Island government will play an essential role in implementing this policy in the next 5 years. The establishment of the committee is a formality, gathering stakeholders into one platform and participating in the discussion. However, the extent to which it can play a role

largely depends on government action, as Hall (2010) argues that “tourism development should prioritize qualitative improvements over aggregate quantitative growth, as the latter often leads to the unsustainability of tourist destinations reliant on the well-preserved state of their ecological characteristics.” (pp. 131). From the government’s point of view, it includes the importance the government attaches to the outcome of the discussion and the decision-making capacity of the government combined with sustainability. From a stakeholder’s subjective point of view, it includes how much they trust the government and their approval of the government’s ability to plan for sustainable tourism development.

Table 10: The Role of Dachen Island Government

Order	How Government Could Help	What This Addresses
1	Serve as an engagement organizer	Set the uniform time and place for stakeholders to attend the discussion, increasing the efficiency.
2	Design discussion mechanisms between and within stakeholders	Design and institutionalize a representative and functional committee that includes voices from all stakeholder groups.
3	Provide necessary support to committee	Provide guidance and resources to the committee to ensure effective conflict resolution and sustainable tourism monitoring.
4	Operationalize and evaluate collaborative strategies	Launch phased pilot initiatives, such as eco-tourism trails, waste reduction programs, and cultural heritage campaigns.

6. Conclusion and Limitations

6.1 Summary of Findings and Implications

This policy analysis focusing on Dachen Island investigates sustainable tourism development from the stakeholders’ perspective, identifying the potential conflicts of interest among stakeholders and proposing policy recommendations and action plans to address these conflicts. The finding shows that sustainable tourism is developing effectively on Dachen Island. During this process, stakeholders play a critical role in how tourism develops and how it affects the environment, society, and economy.

The primary objectives of this policy analysis are threefold: (1) Assess the stakeholders' evaluation of sustainable tourism development efforts in Dachen Island during the last 10 years using "five major sustainability dimensions: economic sustainability, sociocultural sustainability, environmental sustainability, tourism development, and tourism management" (p. 16) (Ali & Li, 2024); (2) Explore the major reasons for potential conflicts of interests among stakeholders, including locals, government officials, visitors, small business owners, hotel managers, and academicians; and (3) Develop a policy recommendation and action plan to improve the sustainable tourism development based on enhancing stakeholders' awareness and stimulating stakeholders' engagement.

This policy analysis leverages the semi-structured interviews for 29 stakeholders mentioned above. The findings indicated that sustainable tourism is developing rapidly on Dachen Island, and our respondents showed reasonable satisfaction with the five sustainability dimensions, with an emphasis on the potential for improving sustainable performance in the future. In addition, most of the conflicts are between the locals and other stakeholders about the environment, education, and economics since the locals are the most sensitive group among stakeholders. And thus, the solutions to the conflicts are around the locals.

Our exploratory findings call for involving local communities, encouraging responsible visitor behavior, enhancing education and awareness, and increasing stakeholder engagement to ensure effective and sustainable tourism development on Dachen Island. Based on the findings, this policy analysis gives policy recommendations and action plans mainly around enhancing stakeholder education to raise awareness and improving stakeholder engagement to foster better coordination. The government and national corporations will play an important role during the policy implementation, arguing that sustainable tourism development on small islands needs to focus on responsible management, with an emphasis on environmental and cultural heritage, and aims to meet the needs of tourists and the needs of current and future local communities.

6.2 Limitations and Suggestions of Policy Analysis

Though this policy analysis gives comprehensive theoretical research and practical field research on Dachen Island, there are some constraints unsolved during this research: (1)

Selection of Research Hypotheses. This paper only concluded six conflicts between diverse stakeholders based on data analysis and gave solutions according to these conflicts.

However, the paper may have neglected other complicated problems, such as land resource use and planning issues on the resource-limited island. Thus, there are some limits to the function of this paper, leading to the limitation of this policy analysis. (2) Limitations in Stakeholder Sampling. This policy analysis only conducted semi-structured interviews with a small number of stakeholders. Though the quality of each interview was quite high, a very small sample size couldn't fully represent all stakeholders' diverse perspectives and experiences. In addition, this policy analysis only selected the representatives from each group of stakeholders due to time constraints and resource limitations, which may have led to the exclusion of some nuanced perspectives within each group. This situation may cause sample selectivity bias. (3) Data Gaps and Incompleteness. Because of various reasons, the government of Dachen Island only had a few statistics, and only a small part of them could be used to do research. This phenomenon led to great limitations in conducting quantitative analysis, which could provide stronger evidence compared to qualitative analysis.

For the future analysis on Dachen Island, here are some recommendations:

(1) Build a Comprehensive and Valuable Database. A robust database could allow for detailed segmentation of stakeholders, enabling targeted strategies that address specific needs. In addition, the quantitative analysis could provide deeper insights, identify patterns, and support evidence-based decision-making.

(2) Prioritize Local Community Engagement. Most of conflicts between stakeholders are the conflicts between locals and other stakeholders since the locals are the primary stakeholders that are most sensitive to changes in the environment. From the result of this research, the problems related to the locals are complex and need to be solved with high priority.

(3) Implement Regular Follow-Up Visits. The government pays great attention to the development of Dachen Island, which has resulted in rapid progress. However, fast-paced development requires consistent monitoring to ensure that growth aligns with sustainable practices and the needs of all stakeholders. Regular follow-up visits can help evaluate the effectiveness of implemented policies and gather feedback from residents and stakeholders.

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Appendix A: Interview Questions

Questions	Theoretical Support
General Questions (directed to all respondents)	
1. What does the word sustainability mean to you?	Björk (2020)
2. What would it mean to achieve sustainability in Dachen Island?	Burbano et al (2022)
3. What do you understand “sustainable tourism” to-be?	
4. What actions have been taken in the last 10 years to achieve sustainable tourism in Dachen Island? In light of these five metrics, please identify the sustainable tourism accomplishments in the last decade in terms of the five major metrics for sustainable tourism:	
a) Environmental Sustainability	Fernandez-Abila et al (2024), Cohen (2017), Burbano et al (2022).
b) Economic Sustainability	Hall (2010), Rotarou (2021), Krajnović et al. (2021), Burbano et al. (2022).
c) Socio-cultural Sustainability	Brown and Cave (2010), Björk (2000).
d) Tourism Development	Sun et al. (2018), Walker et al. (2020)
e) Tourism Management	Lim and Cooper (2016), Higgins-Desbiolles et al. (2019), Graci and Van Vliet (2021).
5. Are you satisfied with the sustainable tourism development efforts devoted in the last 10 years? Why or why not?	Higgins-Desbiolles et al. (2019), Walker et al (2020).
Specific Questions (to each stakeholder)	
A. Questions for Locals regarding Hypothesis 1:	Hardy and Pearson (2018), Waligo et al. (2018).

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1. Do you feel your concerns are addressed during decision-making processes?
 2. How often do you participate in discussions about tourism activities in your community? If not often, what barriers prevent your participation?
 3. What changes would you suggest involving locals more effectively in tourism-related decision-making?
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B. Questions for Hotel Managers regarding Hypothesis 2:

1. How is the current collaboration with local businesses and residents, such as job opportunities? Pasape et al. (2013),
 2. Do you have any suggestions on how to improve engagement with locals in the areas mentioned above? Hardy and Pearson (2018).
 3. How can the government help facilitate better engagement between locals and your business?
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C. Questions for Visitors regarding Hypothesis 3:

1. Have you received any educational materials or participated in campaigns promoting local customs and environmental protection? If yes, were they helpful? Mathew and Sreejesh (2017),
 2. Are you aware of how your activities as a visitor impact the environment, and what steps do you take to minimize that impact? Lalicic (2018).
 3. Do you have any advice for environmental protection in the long run?
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D. Questions for Small Business Owners regarding Hypothesis 4:

1. Have you observed increased opportunities due to diversification in tourism offerings (e.g., cultural or ecotourism)? Wu et al. (2022),
 2. What challenges do you face in contributing to or benefiting from diversified tourism activities? Roxas et al. (2020),
Graci and Van Vliet (2021).
 3. Do you have any plan to diversify tourism services provided to visitors in the future?
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E. Questions for All Stakeholders regarding Hypothesis 5:

1. How do you feel the current educational intensity about sustainable tourism development on Dachen Island? Hardy and Pearson (2018),
2. Do you have any advice to increase the awareness for stakeholders about sustainable tourism development on Dachen Island? Mathew and Sreejesh (2017),
Moscardo and Murphy (1985).
3. If systematic education from experts is provided, would you be willing to spend time on it?

F. Questions for All Stakeholders regarding Hypothesis 6:

1. How often is the conversation and collaboration between stakeholders? Hardy and Pearson (2018),
Moscardo and Murphy (1985).
 2. Do you have any advice to enhance the conversation and collaboration between stakeholders?
 3. What do you hope these conversations will achieve?
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