Green Tourism Concept Implementation Based On Tourist Satisfaction Level In Tapanuli Tengah Regency

Shofian Nanda Adiprayoga[1], Husnul Yaqin[2], Tirta Anugerah[3], Tika Nisari[4]
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Abstract— In sustainable development, Green Tourism integrates environmental preservation, community empowerment, and tourism attractions. This paper aims to develop a strategy for integrating Green Tourism into Tapanuli Tengah Regency's maritime tourism industry. This area continues to deal with a number of classic challenges, such as disorganized tourism administration, poor waste management, and a disregard for accommodations and accessibility. A comprehensive review of the regulations that were implemented in place is backed by a mixed methodology that uses the Soft System Methodology for Visitor Satisfaction Index (VSI) values and responses from different respondents. The research findings, with a satisfaction level of 80.4%, demonstrate that tourists are happy with the tourism activities. There are nonetheless, certain demands made by the guests. Planning for a more methodical and sustainable development necessitates careful consideration of current policies.The research findings outline a number of issues and their resolutions, such as the creation of first-rate amenities, instruction for operators of tourism-related businesses, the application of standard operating procedures (SOP) to ensure price parity for goods and services, and a recommendation to launch a flight route from Jakarta to Tapanuli Tengah in order to facilitate outside tourists coming to the region.

Keywords— Green Tourism; Marine Tourism; Soft System Methodology; Visitor Satisfaction

I. INTRODUCTION

The tourism industry has two drawbacks. Although tourism frequently boosts the economy, it also has negative effects on the environment and produces waste materials [1][2]. Eco-tourism, often known as Green Tourism, is a kind of tourism development that prioritizes environmental integrity and local knowledge while fostering tourism [3].

Green Tourism has emerged in wealthy nations like Japan using a rural strategy. Via a variety of activities that highlight the value of nature and the environment for human life, visitors to rural tourism locations in Japan can get a taste of the local way of life and wisdom [4]. It is also important to acknowledge when lodging establishments use green energy, serve organic food, and involve visitors in agricultural practices.

Green Tourism is a means of expressing gratitude and acknowledging the environment. These certifications and honors have the power to inspire all those involved in the tourism industry to develop a passion for the lovely surroundings [5]. Among the key elements of the green tourism concept are environmental responsibility, the preservation of cultural diversity, local economic growth, and novel experiences.

With a 200-kilometer shoreline, Tapanuli Tengah Regency is located on North Sumatra Province's western coast [6]. This area, facing the Indian Ocean, boasts stunning little islands such as Putri Island, Mursala Island, Poncan Island, and Kalimantung Island. Tapanuli Tengah Regency has two primary industries: marine tourism and fishing capture.

For many years, tourists from other locations and beyond the province have ranked this region among their favorites. The number of visits from tourists rises as the extended holiday season approaches. The Tapanuli Tengah Regency's maritime tourism industry has enormous potential, but plenty of effort remains.

For a variety of reasons, such as unmanaged waste materials, a dearth of souvenirs, and inadequate maintenance of tourist sites, the majority of international visitors are unwilling to come again or extended their stays. Even if the tourism industry is growing, Tapanuli Tengah Regency's economy is undoubtedly going to flourish.

[1]Shofian Nanda Adiprayoga, Social Economic Fisheries Study Program, Matauli College for Fishery and Marine Science, Pandan, Tapanuli Tengah, 22538, Indonesia. E-mail: pra_yoga2305@yahoo.com/shofian_prayoga@stpkmatauli.ac.id
[2]Husnul Yaqin name is Social Economic Fisheries Study Program, Matauli College for Fishery and Marine Science, Pandan, Tapanuli Tengah, 22538, Indonesia. E-mail: hrphusnulyaqin@gmail.com
[3]Tirta Anugerah, Social Economic Fisheries Study Program, Matauli College for Fishery and Marine Science, Pandan, Tapanuli Tengah, 22538 Indonesia. E-mail: tirta.anugerah1993@gmail.com
[4]Tika Nisari, Social Economic Fisheries Study Program, Matauli College for Fishery and Marine Science, Pandan, Tapanuli Tengah, 22538 Indonesia. E-mail: tikanisari96@gmail.com

TABLE 1.
NUMBER OF DOMESTIC AND FOREIGN TOURIST VISIT TO TOURISM OBJECT IN TAPANULI TENGAH REGENCY

Cluster	Years (Number of visit)				
	2019	2020	2021	2022	2023
Domestic Tourist	97.268	313.808	265.640	335.678	384.100
Foreign Tourist	515	256	-	-	40
Total	97.783	314.064	265.640	335.678	384.140

It has long been understood how crucial it is to preserve the natural elements of popular tourist destinations. Unfortunately, there is a dearth of knowledge regarding the factors driving the establishment and development of eco-friendly maritime tourism in the Tapanuli Tengah Regency. In light of those circumstances, study on strategies for augmenting Tapanuli Tengah Regency's potential for marine tourism is considered necessary. It is envisaged that the benefits of the Green Tourism concept, which involves the involvement of the local community, will be felt simultaneously by the local communities of Tapanuli Tengah Regency and visiting tourists.

II. METHOD

The development plan of the local administration of Tapanuli Tengah Regency prioritizes development in two sub-districts (Pandan and Sorkam Barat), which are the samples for this study's mixed methods approach. Utilizing the Soft System Methodology, qualitative analysis is carried out after quantitative analysis to further explore the Visitor Satisfaction Level.

Utilizing questionnaires and interview protocols, data was gathered for multiple sample clusters, including visitors/tourists, policy makers, local communities, and tourism business players, through the sampling approach. The Slovin formula[7] is used to determine the number of informants/respondents. The following computation was used to determine the study's sample size:

$$n = \frac{N}{1 + Ne^2}$$

Notes:
n = Number of samples
N = Number of Population
e = Margin of Error value of population size

Using an error tolerance of 10%, the researcher in this study collected 88.8 responses in total, rounding to 90 persons. These individuals were then split into the following four clusters:
1) Visitors/tourists (35)
2) Policy makers/stakeholders (10)
3) Local communities (20)
4) Tourism business players/businessman (25)

The Visitor Satisfaction Index (IKP) [8] analysis in conjunction with Soft System Methodology (SSM) analysis is the analytical process used in this study. IKP analysis is used to evaluate satisfaction, as shown by the average value of the importance and satisfaction levels using the following formula:

IKP (%) = X/Y x 100%
Notes:
IKP = Visitor Satisfaction Index (%)
X = Average performance score
Y = Average importance score

Furthermore, the score results are grouped into 5 (five) criteria as follows:
a. IKP 81% - 100%   : Highly satisfied
b. IKP 66% - 80,99%   : Satisfied
c. IKP 51% - 65,99%   : Quite satisfied
d. IKP 35% - 50,99%   : Less Satisfied
e. IKP 0% - 34,99%   : Dissatisfied

Also, Soft System Methodology (SSM) [9] analysis was used to examine the data in more detail. Seven consecutively operating systematic steps make up SSM, and they are as follows:
1) Identify unstructured problems
2) Statement of problem situation
3) Developing relevant system definitions
4) Develop a conceptual model of the system by definition
5) Comparison of conceptual models with the real world
6) Developing a systematic change strategy
7) Developing strategies to improve problem situations

Given its ability to generate models and strategies involving multiple significant actors, SSM is deemed very useful in this study. Complex problems can be simplified into easier-to-understand analysis tables using the SSM analysis technique[10]. This study will be more structured and have a more in-depth examination of the strategy of implementing community-based green tourism in the maritime tourism sector in Tapanuli Tengah Regency thanks to the use of the SSM technique. It will also create a descriptive narrative research.

III. RESULTS AND DISCUSSION

A. Respondents' Characteristics
Policy Makers/Stakeholders

The researcher spent time distributing data according to the following study questions to multiple agencies based on responses from policy stakeholders:
1) Head of Research and Development (BAPPEDA)
2) Head of Planning Development (BAPPEDA)
3) Head of the Tourism Department (Tourism Department)
4) Head of Tourism Capacity Development (Tourism Department)
5) Head of Division Adiatama (Tourism Department)

6) Village Head/Mayor (Binasi Village)
7) Village Head/Mayor (Pandan Village)
8) Subdistrict head (Sorkam Subdistrict)
9) Head of Public Relations and Community Services Section (Pandan District)
10) Data Production Field (BPS Statistics)

It is then used as material for analysis relating to policies that have been implemented in Tapanuli Tengah Regency's tourism management, based on the findings of policymaker interviews. By contrasting the policy with actual field conditions, the researcher assesses the policy. The result of the analysis process is a strategy that is explained in the SSM analysis series Comparison of Conceptual Models with Reality[11].

Respondents' – Tourist, Local Communities, Tourism Business Players/Businessman

Education is a useful instrument for forecasting a person's values, attitudes, and behaviors in the future. The degree of education explains the interest in tourism as well as the community's ability to meet visitors demands to the fullest extent possible. Based on information from tourist respondents regarding the most recent level of education completed, the level of education of tourists is determined.

Similarly, the data indicates that the highest degree of education attained is at the high school level, with a proportion of 55% for local community responders and 48% for business players. This suggests that most people with a fairly high degree of education have supported the state of tourism implementation in Tapanuli Tengah Regency.

Higher education levels typically result in better mindsets and more favorable behaviors toward the tourist destinations visited, which over time will strengthen visitors feelings of connection to the destinations[12][13]. This is going to align with the growing awareness of hygiene. Higher levels of education within the community correlate with greater knowledge and concern for generating ideal and joyful travel circumstances in the tourist industry.

Teaching, mentoring, setting a positive example, and providing inspiration to act and behave in a way that significantly protects the environment are all considered forms of education. A greater incentive to engage in environmental preservation will come from visitors who focus on the natural surroundings of tourism destinations.
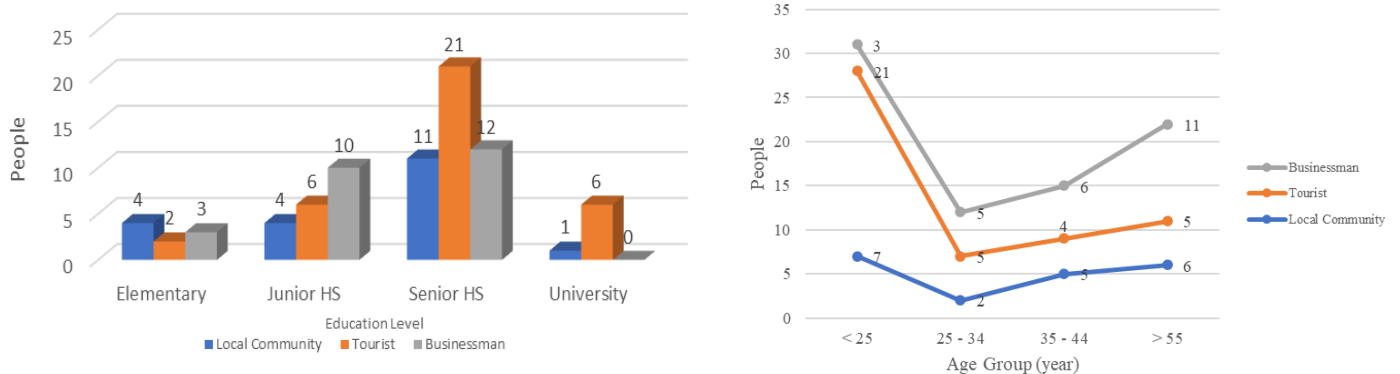

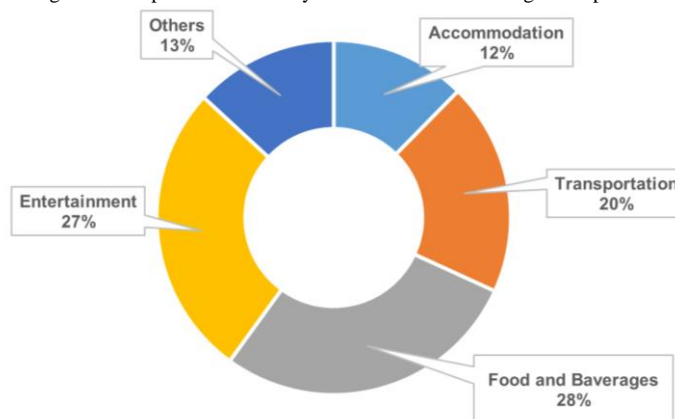Figure. 1. Respondents' Share by Educations Level and Age Groups

Figure. 2. Tourist Spending Percentage in Tapanuli Tengah Regency by Type of Expense for Every Trip

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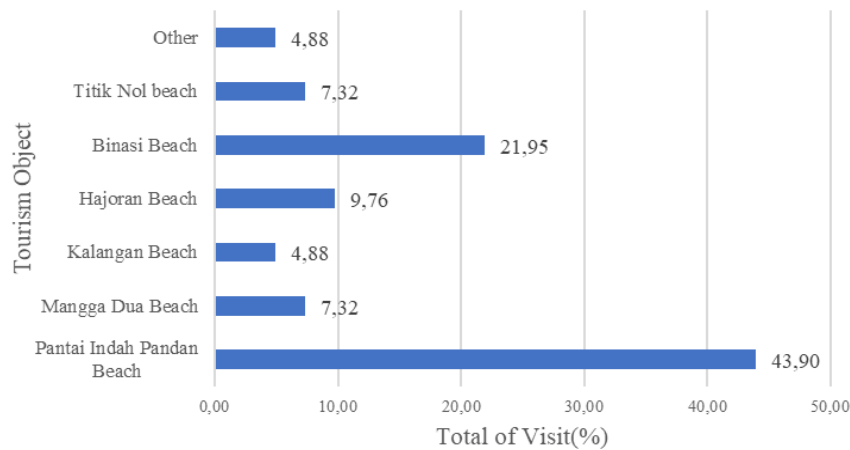*(pISSN: 2541-5972, eISSN: 2548-1479)*

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Figure. 3. Percentage of Tapanuli Tengah Regency Visitors Who Show Interest in Traveling

When it comes to age groupings, the majority of visitors participating in tourism activities in Tapanuli Tengah Regency are members of Generation Z (Gen Z), which comprises up to 21 individuals, or 60% of all tourist respondents. This is supported by the Central Statistics Agency's Nusantara Tourist Statistics 2023 survey, which shows that millennials and Gen Z account for about 70% of all tourist visits.

Travel experiences are more common among millennials and Gen Z than in previous generations, and they prioritize service quality when choosing a destination. In the meantime, individuals over 55 make up the majority of replies from local communities and tourism industry players[14]. It is nevertheless regarded as a productive age or productive age in this age group.

Tourism places with natural and attractive landscapes that can be captured for images or movies are typically sought after by tourists in the 17-38 age group, according to a study performed in East Java [15] [16]. Tourist attractions and activities that are executed well and bolstered by beautiful natural settings will draw more visitors the more memorable they are.

Based on the category with the highest spending, food and drink expenses incurred by visitors during their travels account for up to 28% of total expenses. This indicates that the primary purpose of visiting most tourist places is to sample the local cuisine. However, lodging represents the category of expenses with the lowest share. The Tapanuli Tengah Regency, where the majority of visitors to tourism destinations come from, makes this decision appropriate.

Based on the distance between the Capital (Pandan) and up to 11 marine tourism objects, BPS [17] data from Tapanuli Tengah Regency was consulted. These objects are as follows:
1. Pandan District's - Pantai Indah Pandan Beach(±2km)
2. Pandan District's - Mangga Dua Beach (±2km)
3. Pandan District's - Kalangan (± 3.6 km)

4. Pandan District's - Hajoran Beach (±5.4 km)
5. Sorkam District's - Muara Nauli Beach (± 50km)
6. Sorkam Barat District's - Binasi Beach (± 53 km)
7. Sosorgadong District's - Barangbang Beach (±69 km)
8. Sosorgadong District's - Sibintang Beach (±70 km)
9. Barus District's – Titik Nol Beach (±76 km)
10. Andam Dewi District's - Sitiris-Tiris Beach (± 83km)
11. The Andam Dewi District's Kahona Beach (± 84 km)

Two popular places to visit are known to exist, namely Pantai Indah Pandan in Pandan District and Binasi Beach in Sorkam Barat District. This information is based on grouped data regarding the location of tourist destinations that are the major destinations for tourists. The research team arrived at this conclusion based on the feedback they received from tourists.

B. Visitors Satisfaction Index (VSI)

The Visitor Satisfaction Index (VSI) in a visitor satisfaction survey measures and expresses the percentage of satisfied visitors. The VSI takes into account the relative importance of each research indication to explain the overall level of satisfaction as well as the level of visitor satisfaction with each indicator. This study conducted the Visitor Satisfaction Index analysis to evaluate visitor satisfaction, as evidenced by the average level of satisfaction and level of importance [18]. According to the calculations, the average value of the visitor satisfaction index is 80.4%. The tourism satisfaction index's value for every variable between:

The following provides specifics regarding the Visitor Satisfaction Index calculation results:
1) The Attraction variable's Visitor Satisfaction Indeks is 84.5%, Its category display value is "Very satisfied".
2) The facility and service variable's visitor satisfaction level is 83.4%, Its category display value is "Very satisfied".

TABLE 2.
TOURIST SATISFACTION LEVEL

No.	Variable	Indeks Value (%)	Criteria
1	Attractions	84,5	Very Satisfied
2	Facilities and Services	83,4	Very Satisfied
3	Accessibility	79,8	Satisfied
4	Impression of Tourist Attractions	75	Satisfied
5	Prices Offered	79,3	Satisfied
6	Interest in Return Visits	80,6	Satisfied

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3) Based on the accessibility variable, the Visitor Satisfaction Index is 79.8%, Its category display value is "Satisfied".

4) With a Visitor Satisfaction Index of 75%, the Tourist Object Image variable show its category display value is "Satisfied".

5) The Visitor Satisfaction Index for the Cost or Price variable is 79.3%, Its category display value is "Satisfied".

6) The Visitor Satisfaction Index for Interest in Return Visits variable is 80.6%, its category display value is "Satisfied".

According to the aforementioned findings, just two of the six categories that were examined received "Very satisfied" responses from visitors. Meanwhile, visitors solely gave the "Satisfied" response when asked about other factors like accessibility, the attraction's reputation, the costs associated with it, and their desire to recommend it and return.

As demonstrated above, Tapanuli Tengah Regency's tourist attractions have been managed, and visitors have expressed satisfaction with their experiences. Despite giving the criterion a "Very Satisfied" rating, tourists feel that a few aspects still need refinement and improvement.

According to interviews with a number of tourists, they mentioned that occasionally, even after their visits, they still run into a number of problems, like finding the locations of tourist attractions, the perception of attractions that they haven't yet been able to see on social media, and the tendency of prices offered by travel agencies to change.

Ideally, the tourist attraction will be run with such consideration that they will encourage their colleagues to visit it as well [19]. The comment directly demonstrates the need for urgent attention to the state of the tourism sites in Tapanuli Tengah Regency. Recommendations from visitors who are extremely satisfied with their stay and tell others about their pleasant experiences are an effective form of promotion.

If the responsibility falls on the tourism providers, visitor satisfaction will not increase. However, managing tourist sites is a critical duty that requires support from the government, which is also involved through the appropriate departments.

In this instance, the researcher also consulted the tourism office. After interviews with a number of officials at the Central Tapanuli Regency Tourist Office, the researcher discovered that the Tourism Office has a genuine desire to grow the maritime tourism industry. Nonetheless, the Sub-National Development Planning Agency (BAPPEDA) frequently pays little attention to the majority of its suggested plans.

People frequently perceive BAPPEDA, a strategically positioned government organization, as making inconsistent decisions about development plans. For instance, the program prioritized the development of the tourism industry during its first year, shifted its focus to small and medium-sized business development in the next two years, and prioritized public health issues in the third year.

Researchers think that this is the main cause of the unsustainable growth of tourism in Tapanuli Tengah Regency. According to the concept of "Green Tourism", all parties [20] involved who have an interest in the tourism industry's survival can be included, and sustainable tourism can be accomplished.

The researchers then used the findings of the Visitor Satisfaction VSI (VSI) analysis as the foundation to create a plan utilizing Soft System Methodology (SSM). The Tapanuli Tengah Regency local government can then use the plan development results to provide recommendations for reference.

C. Soft System Methodology Analysis

The previous VSI analysis described how tourists responded to their visit's impressions. At this stage, we use SSM to more thoroughly detail the analysis results based on the identified problems. We use SSM analysis to elucidate complex issues and devise alternative solutions to tackle them. We conduct SSM using seven structured analysis steps.

The SSM series starts with the development of a research Grand Design, which Rich Pictures [21] then incorporates into a flow chart. In a straightforward manner, Rich Pictures explains the full range of study
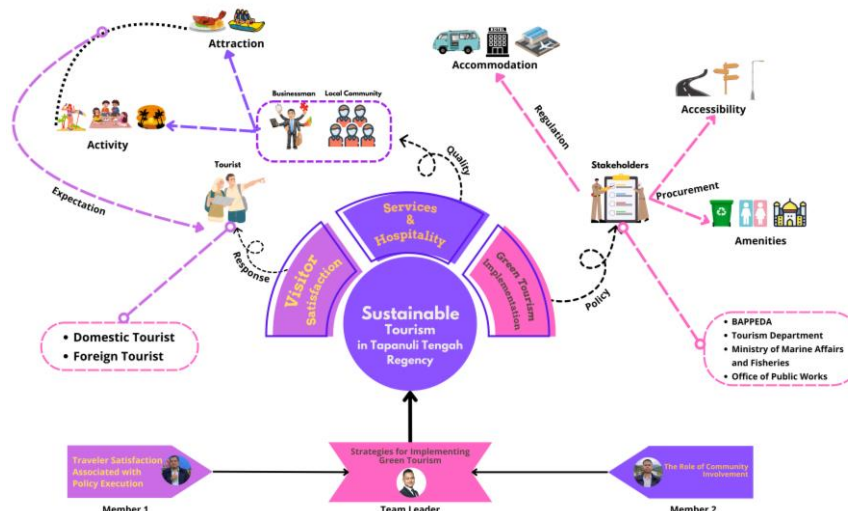

Figure. 4. Rich Pictures

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principles. During the SSM stage, a group of systems known as Rich Pictures are used.

The process of creating a root definition, or system definition, comes next. We will use two questions that mirror the research problem to establish the basic definition for this study. "Do (P), with (by) Q, to achieve (in order to achieve) R" is the intended meaning of the PQR formula, which is used in the root definition discussion in accordance with SSM theory.

The next stage is to instantiate the situation's elements using CATWOE[22] analysis after the root definition has been determined. The following is a summary of the identification's details:

1) Customers

Participants who were found to be impacted by the research activities carried out are categorized in the analysis's Customers category. Customers in this instance relate to Business Actors, Tourists, and the Local Community.

2) Actors

The study team, which consists of two team members and a team leader, is referred to as the actors.

3) Transformation process

This step involves the conversion of inputs into outputs

thorough, accurate information in order to create a strategy for putting the green tourism idea into practice.

4) Weltanschauung / World View

At this point, a thorough viewpoint is being arranged such that the fundamental definition has significant meaning.

5) Owners

Shofian Nanda Adiprayoga, the head of the research team, is in complete control of the study.

6) Environmental constraints

It is a declaration of constraints that may have an impact on a circumstance. Although they are considered as uncontrollable limiting factors in this instance, the extremely unpredictable weather and climate conditions in Tapanuli Tengah Regency can be prepared for.

The next step of SSM involves connecting all of the tasks that will be completed in the context of process T (in CATWOE) to establish a coherent system. This is the fourth stage of the seven-stage SSM process. This phase integrates all the procedures from the third stage, also known as the root definition, to identify the appropriate system for solving the research problem.

Additionally, the researcher bases his or her judgments to expound on the formulation of the research

TABLE 3.
ROOT DEFINITION

State of The Problem	Relevant System
The level of satisfaction among tourists with the policies put in place by the local government to boost the maritime tourism industry.	In order to use the respondents' responses about the policies the Tapanuli Tengah Regency Government has implemented as a basis for evaluation (P), talks and interviews with all respondent clusters—local communities, business actors, tourists, and stakeholders—will be done (Q). The purpose of these activities is to evaluate how well government policies have been implemented in terms of fostering sustainable tourism in Tapanuli Tengah Regency (R).

TABLE 4.
3E ANALYSIS (EFFICACY, EFFICIENCY, EFFECTIVENESS)

Efficacy	In order to manage the tourism industry as a significant potential, the local government must take the lead in developing policies.
Efficiency	It is possible to produce a fresh, innovative, and sustainable policy formulation by working together with the Tourism Department and Bappeda to prepare development plans for tourism sites.
Effectiveness	In the future, the mechanism for the follow-up actions resulting from the developed strategy can be utilized to support the action plan, particularly in the development of Green Tourism in Tapanuli Tengah Regency.

TABLE 5.
CONCEPTUAL MODEL

Root Definition	Activity	Description
In order to use the respondents' responses about the policies the Tapanuli Tengah Regency Government has implemented as a basis for evaluation (P), talks and interviews with all respondent clusters—local communities, business actors, tourists, and stakeholders—will be done (Q). The purpose of these activities is to evaluate how well government policies have been implemented in terms of fostering sustainable tourism in Tapanuli Tengah Regency (R).	Act 1	Understanding that it becomes a significant issue in the tourism attraction management indicators.
	Act 2	Recognizing the necessity for regulations for the management of amenities and services offered at tourist destinations.
	Act 3	Finding accessibility signs that indicate availability.
	Act 4	Determining the perception of tourist attractions by looking at how the locals and service providers behave at the locations.
	Act 5	Examining visitor happiness with respect to the tourism industry's offerings.

through the execution of tasks. Questionnaires and interview transcripts are used to gather primary data for the activity in question. This data is then processed into

problem on the findings of the analysis in the conceptual model. An analysis pertaining to the 3E Criteria[23] was also carried out in the study. (Efficacy, Efficiency, Effectiveness).

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The next stage in SSM is to develop the Root Definition into a conceptual model. The conceptual model is described based on the problem by identifying activities that can be carried out in the implementation of Green Tourism in the district of Central Tapanuli. Next, we compare the real-world conditions to the conceptual model and pinpoint the decision-making actors. The final result of this analysis is to produce alternative solutions to the problems outlined.

The tourism industry is deemed profitable due to its ability to increase a nation's economic activity. Large multinational corporations are frequently involved in the development of this industry because they see benefits that can be seen at the local, national, and regional levels. Thus, alternative tourism is starting to grow in order to support local communities and bring in a substantial amount of money, particularly in terms of foreign exchange for the nation.

One of the most important economic sectors, tourism plays a crucial role in a nation's growth, wealth, and well-being. It also impacts the nation's overall economic welfare. The growth and improvement of tourism can positively affect locals' lives, create more job possibilities, and lower unemployment, making it an excellent indicator of community well-being.

Green tourism development relies on community involvement. A tourist destination can leverage the community as a valuable resource to promote events. When it comes to tourist attractions, hospitality is one of the most important measures of visitor satisfaction. When visitors experience satisfactory service, it leaves a favorable impression and strengthens their desire to return or re-visit. Travelers who are satisfied will also readily recommend it to their close family members. People consider recommendations from close friends to be an effective marketing strategy.

The local community that surrounds tourist attractions also deserves serious attention. In addition to being hospitable, they can make the most of their presence near tourist attractions by offering instruction and direction in the design of distinctive mementos. In fact, the community accepts these policies extremely well.

The government, management parties, and community groups must all be involved in the creation of sustainable tourism [24]. In Indonesia, community-based tourism initiatives are viewed as a sensible strategy that can be implemented everywhere. The hospitality of the Indonesian people and the diversity of cultures within the community are two important contributing elements. This has a certain allure for tourists, particularly foreign visitors.

Interviews with community members revealed that, with support, they will experience the positive effects of tourism in their neighborhood. Positive interactions in the community are among the most sought-after benefits for tourists. In addition, community-based tourism is attractive because of the persistent preservation of local culture [25]. One particular and distinguishing feature of a place is the range of art, culture, and social activities within the community. The relationship between living cultures and community-based tourism management is critical to understanding sustainable tourism.

Managers anticipate that the community can also educate tourists about moral principles. Thus, visitors decide if it's worthwhile to explore the variety of art and culture, as well as local events. Nonetheless, in order to create sustainable tourism management, community empowerment must make reference to these concepts.

Involving the community is critical for tourism management because it serves as the primary driver. The greatest approach to guaranteeing sustainable tourism,

TABLE 6.
CONCEPTUAL MODELS COMPARED TO REALITY

Activity	Reality	Who's Involved	Sustainability and Alternative Solutions
1.	Visitors' comprehension of the distinctive features of the available attractions is restricted.	Tourism Department	At every tourist destination, post informational signs and travel infographics that highlight the local attractions.
2.	The absence of toilets and places of worship is a source of complaints from visitors.	Tourism Department, Environment Department, Office of Public Works	One of the main complaints from guests is the lack of restrooms and places of worship. Departments of Tourism, Environment, and Public Works Amenities that are properly implemented through planning, monitoring, and controlling.
3.	Travelers are still having trouble locating tourist attractions.	Transportation Department, Tourism Department, Office of Public Works	Route signage, direct flights from Jakarta to Tapanuli Tengah, and road building all make tourism destinations easily accessible.
4.	Visitors are griping about the inconsistent prices being offered.	Tourism Department	Using Strandart Operational Procedures (SOP), prices for goods and services are consistently offered.
5.	Although they are happy with their journeys, local visitors are hoping for more advancements. Section of Tourism. Green tourism should be incorporated into development policies, which should be founded on sustainable principles.	Tourism Department	Policies for development that combine the idea of green tourism with sustainable principles.

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according to several studies, community-based tourism management.

Introducing the concept of a homestay is another way to maximize the importance of community involvement. A regulation that permits the use of one room in residents' houses for guest accommodations might serve as guidance for the community. Naturally, the proprietors of the facility must consider the community, as well as the comfort and safety of visitors, when designing this policy.

The Standard Operating Procedure (SOP) should describe the government's creation of a profit-sharing structure for housing facilities, assistance with promotional access, and standardization of the provision of acceptable housing facilities. Banyuwangi Regency has successfully implemented the idea of homestays using community-owned facilities like this one.

By promoting community-owned facilities as homestays rather than issuing permits for the construction of hotels with a quality rating below three stars, the Banyuwangi Regency Government is putting good policies into practice. The findings of the SSM study suggest that Tapanuli Tengah Regency can effectively implement these policies. But in order to grow the tourism industry and make it dominant, the government must act with great resolve and seriousness. Therefore, it is thought that the community benefits from the ongoing tourism-related activity in their surroundings.

IV. CONCLUSION

The Visitor Satisfaction Index shows favorable results but still requires the right development strategy. Tapanuli Tengah Regency can implement Green Tourism through more systematic and sustainable development planning. Steps that can be taken include providing better amenities, offering training to tourism entrepreneurs, implementing standard operating procedures (SOP) for price uniformity of goods and services, and suggesting the opening of flight routes from Jakarta to Tapanuli Tengah for outside tourists.

REFERENCES

[1] X.J. Du, H.H. Lin, I.C. Hsu, Y. Ling, S.F. Zhang, Q.Y. Li, "River Green Land And Its Influence On Urban Economy, Leisure Development, Ecological Protection, And The Well-Being Of The Elderly".Water, Vol 15(7),1350, 2023.

[2] E. Juli "Pengelolaan Potensi Pariwisata di Desa Wisata Sibintang Kecamatan Sosorgadong Kabupaten Tapanuli Tengah". Diss. Universitas Sumatera Utara, 2021.

[3] A. Wahyuni, D.K. Halim, P.A. Prianta, G.A. Prakoso, "Edukasi Kepada Masyarakat Umum Tentang Kesehatan Lingkungan Berkelanjutan di Jimbafest". Jurnal Abdi Anjani, Vol 1(2), pp 59-63, 2023.

[4] K. H. Wang, Y. X. Zhao, C. F. Jiang, & Z. Z. Li, "Does green finance inspire sustainable development? Evidence from a global perspective". Economic Analysis and Policy, Vol 75, pp 412-426, 2022.

[5] S.N. Adiprayoga, H. Yaqin, A. Tirta, "Marine Ecotourism Development Strategy Based on Creative Local Potential in Binasi Beach". The International Journal of Marine Engineering Innovation and Research (IJMEIR), Vol 8(3), pp 501-508, 2023.

[6] BPS. Kabupaten Tapanuli Tengah Dalam Angka. In: Data BPS [Internet]. 43rd ed. BPS Tapanuli Tengah; 2024. p. 452. Available from:https://tapanulitengahkab.bps.go.id/publication/2024/02/28/8a0fb602e220f0e1e555af70/kabupaten-tapanuli-tengah-dalam-angka-2024.html.

[7] T. D. Anugraheni, L. Izzah, & M. S. Hadi, "Increasing the students' speaking ability through role-playing with Slovin's Formula Sample Size". Jurnal Studi Guru Dan Pembelajaran, Vol 6(3), pp 262-272, 2023.

[8] G. Ganya. Indeks Kepuasan Pengunjung Objek Wisata Sea World, Ancol. Diss. Universitas Brawijaya, 2021.

[9] F. M. Y. Roxas, J. P. R. Rivera, & E. L. M. Gutierrez, "Framework for creating sustainable tourism using systems thinking". Current Issues in Tourism, Vol 23(3), pp 280-296, 2020.

[10] P. Checkland, & J. Poulter, "Soft systems methodology. Systems approaches to making change: A practical guide", pp 201-253, 2020.

[11] C. Derek, & L. Cabrera. "What is systems thinking? Learning, design, and technology: An international compendium of theory, research, practice, and policy". Cham: Springer International Publishing, pp 1495-1522, 2023.

[12] C. Arcodia, N. M. Abreu, N. Cavlek, & A. Humpe, "Educational tourism and experiential learning: Students' perceptions of field trips". Tourism Review, Vol 76(1), pp 241-254, 2021.

[13] P. Tiwari, H. Séraphin, & N. R. Chowdhary, "Impacts of COVID-19 on tourism education: Analysis and perspectives". Journal of Teaching in Travel & Tourism,Vol 21(4), pp 313-338, 2021.

[14] A. M. Morrison, "Tourism marketing: in the age of the consumer. Routledge", 2022.

[15] T. Sugiarti, & M. A. Fikri, "Tingkat kepuasan wisatawan terhadap sapta pesona wisata Air Terjun Sedudo". Jurnal Ekonomi Pertanian dan Agribisnis, Vol 5(1), pp 245-256, 2021.

[16] D. S. Octanisa, & A. B. Palestho, "Analisis Karakteristik Wisatawan Lokal Pantai Mliwis, Kabupaten Kebumen". NAWASENA: Jurnal Ilmiah Pariwisata, Vol 2(2), pp 36-45, 2023.

[17] BPS, "Kabupaten Tapanuli Tengah Dalam Angka 2024". Badan Pusat Statistik, 2024.

[18] M. F. Firmansyah, & F. Z. Nasution, "Indeks kepuasan publik bidang pariwisata dan strategi pengembangan pariwisata di Wilayah Priangan Timur". WELFARE Jurnal Ilmu Ekonomi, Vol 1(2), pp 118-131, 2020.

[19] T. Sharma, J.S. Chen, "Expected Green Hotel Attributes: Visit Intentions in Light Of Climate Change And COVID-19 Double Whammy". In Advances in Hospitality and Leisure, pp. 155-176, 2023.

[20] Y. Iwai, "Green Tourism In Hokkaido-A Comparative Analysis With European Green Tourism". [Internet]. cabidigitallibrary.org; 1998 p 68-78. Available from: https://www.cabidigitallibrary.org/doi/full/10.5555/19981807339.

[21] D. Lolua, "Green Tourism - A Contributing Factor To The Development Of The Green Economy". Tourism Management, vol 178, pp 171–178, 2020.

[22] S. N. Adiprayoga, J. Samiaji, "Opportunities and Strategies for the Blue Economy Through the Empowerment of Sumatera Coastal Communities in Supporting the Realization of the National Food Security". IOP Conference Series: Earth and Environmental Science, Vol. 974, pp 1-8, 2021.

[23] C. Treager, T. Lopachin, S. Mandichak, B. Kinney, M. Bohan, M. Boboc, & S. Stuart, "A comparison of efficacy, efficiency, and durability in novel tourniquet designs". Journal of Trauma and Acute Care Surgery, Vol 91(2), pp 139-145, 2021.

[24] S. M. Rasoolimanesh, S. Ramakrishna, C. M. Hall, K. Esfandiar, & S. Seyfi, "A systematic scoping review of sustainable tourism indicators in relation to the sustainable development goals". Journal of Sustainable Tourism, Vol 31(7), pp 1497-1517, 2023.

[25] H. Go, & M. Kang, "Metaverse tourism for sustainable tourism development: Tourism agenda 2030". Tourism Review, Vol 78(2), pp 381-394, 2023.