



Application of Environmental Protection Principle in Developing Tourism Potentials of Ebonyi State

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ABSTRACT

The study assessed the application of environmental protection principles in Ebonyi State's tourism potentials. A field survey was conducted in Ebonyi South and North senatorial districts, with a sample size of 560 respondents. The research found that key tourism players in the state have not fully applied environmental protection principles to ensure the distribution of tourism resources. The study concluded that the environmental protection principle is not fully applied in the development of tourism potentials, and recommended that key players should strive to apply it as a sustainable development principle to create a connection between the environment and tourism.

INTRODUCTION

Tourism is a socio-cultural and economic phenomenon that mean the movement of people to destinations outside their normal environment for leisure is seen as an important stimulator for the whole economic system as its development in any country creates jobs, increases national and domestic gross products, serves as a source of income to the local economy which can be an important lever for the general social situation. Tourism as a global reality is dependent on the physical environment and natural resources, like water, soil, caves, lakes, wildlife and mountains to thrive. According to Bdlex (2022), the key elements of the tourism industry which encompasses access (transport), accommodation (lodging), attractions and amenities are directly dependent on the environment for existence and operation and therefore there is need to create a balance between tourism and the environment by establishing a symbiotic relationship through sustainable development. Hayley (2021) noted that tourism and the environment are inextricably linked and they can be likened to two Siamese twins. This is because tourism depends on environment to thrive while environment is the domain of tourism. Panda (2019), opined that tourism is dependent on the natural resources, heritages, and the people that live in the environment. This dependency relationship involves all tourism stakeholders, that make tourism possible. Hayley (2021) further held that among the components of tourism, attraction is the most singular element of tourism that influences the tourist, tourism key players and the environment. That is, attractions pull tourist to visit an unusual safe environment, tourism stakeholders consider areas with tourism potentials as an economic opportunity for national development and the environment is the habitat of the tourism potentials. According to Shohan, Toleuuly Assadova and Zhanna (2014) tourism potentials of an area catalyze tourism development and sustainable tourism development conserves the environmental resources. Sustainable tourism development aids environmental protection, socio-economic benefits for the local communities, conservation of local culture, harmonizing tourists and the local communities for mutual benefits (Wardle, 2021). In Ebonyi State, with abundance of tourism potentials such rolling hill, lakes, mountains, forest reserves, beaches and caves, the environmental impacts of tourism development are negative because of the level of environmental damage in most of the tourist destinations. Kamer (2021) opined that it is pertinent for countries to focus on the application of principles of sustainable development in all areas of development including tourism. The application of principles of sustainability as a necessity in tourism development will minimize the destruction of the ecological resources caused by global warming, social value loss and the inability to preserve historical, social, cultural and natural resources of any community. This therefore becomes pertinent for the state to protect the environmental resources through sustainable tourism planning to ensure that the resources are available for both the present and future generations. Indeed, a systematic approach is required in the design of sustainable tourism development principles to ensure there is continual availability of these attractions to the present and future generations. It is on

this background that the researcher sets out to explore the application of environmental protection principles in developing the tourism potentials in the present study.

Statement of the Problem

Most of the tourist destinations are overflowed during the festive period due to lack of carrying capacity in the destination. For instance, over flooding of the Iyieke and Ehoma lakes during the fishing festival has resulted to loss of biodiversity, fauna, flora and aquatic animal used for tourism in the area. In the opinion of Corrad (2017), mass tourism, irrespective of its economic benefits, is termed “agent of environmental degradation, cultural commodification and the cause of general decline in the standard of living of the locals”. Tourism on a large scale has been shown to increase population and becoming detrimental to the local environment. Most destinations do not apply environmental carrying capacity to determine the exact number of tourists that can visit a destination at a time. This results to the destruction of the physical, economic, socio-cultural environment and create unacceptable decline in the quality of visitors' satisfaction and the local people at large.

Tourism development if not properly planned and managed sustainably could have irredeemable negative impacts such as environmental degradation, cultural disappearance, pollution, social slavery, and negative impact on local economy. Therefore, the central pillar of any development including tourism should be anchored on the sustainable development principles which is the development that will provide the needs of the present generation without compromising the provision of the needs of the future generation.

Objectives of the Study

The major objective of this study is to ascertain the environmental protection principle applicable in developing tourism potentials of Ebonyi State. Specifically, the work seeks to:

1. Know if tourism developers use physical carrying capacity in the tourist destination
2. Ascertain if the tourism developers used economic carrying capacity at the destination
3. Find out whether tourism developers use social carrying capacity at tourist destination
4. Find out if tourism developers used biophysical carrying capacity at tourist destination

LITERATURE REVIEW

Environmental Protection Principle

The central thesis of this principle is that environmental protection is an important aspect of sustainable development. Most nations have formulated environmental protection laws to make sure that they achieve sustainability within their territories. To achieve sustainable development, it is pertinent to

establish an effective environmental protection mechanism. This is because inadequate protection of environment or its degradation affects the poorest sections of the society, as a large part of their livelihood are drawn from available environmental resources like forests, river, mountains, caves and beaches. Therefore, policies that will ensure that the environment is protected can be achieved through carrying capacity. Tourist site planners and developers should consider carrying capacity of the tourist destination to avoid over and under tourism. Destination carrying capacity is a new approach to managing visitors in protected areas and national parks which came into existence from the fields of habitat and wildlife management. In planning for carrying capacity of a destination, managers made effort to determine the largest number of tourists that could be supported by a habitat over a long period of time. Destination carrying capacity is defined by the World Tourism (2008) as the highest number of tourists that can visit a tourist destination at a specified period, without causing destruction to the physical, economic, socio-cultural environment and an unacceptable decrease in the quality of visitors' satisfaction. Middleton and Hawkins Chamberlain (1997) as contained in Okonkwo and Odey, (2017) defined it as "the level of human activity a place can accommodate without destroying the natural resources and the resident community being adversely affected or the quality of visitor's experience declining. According to Edward (2017), tourism planners should apply four major carrying capacity for a destination to be sustainable. These are : social , economic, physical and biophysical carrying capacities to achieve sustainability in tourism development.

Physical Carrying Capacity

This is the highest number of tourists that a destination can carry at any given time. That is the maximum number of tourists that can fit on the site at any given time and still allow people to move freely in the destination. Tourism key players in Ebonyi State should integrate physical carrying capacity into tourism development plans to ensure that the destination maintains its original state for both the present and future generation. The design and architectural structure of all destinations in the state should specify tourists' capacity at a given time so as to maintain the natural environment.

Economic Carrying Capacity

This entails a level at which the locals can accept changes within the local economy of a tourist destination. That is, the extent to which a tourist destination is able to accommodate both tourists and local activities. For instance, when souvenir store sells other essential items to the local community. This helps to increase revenue brought by tourism development. Most of the tourist attractions in the study area have been misused by the local people. Therefore, considering the creation of economic activities that will be beneficial to all tourism stakeholders while preserving the environment is of paramount to tourism key developers in the state.

Social Carrying Capacity

This is the negative socio-cultural impacts resulting from tourism development in an area. this reduces local tolerance for tourism as described by Doxey's Index of irritation. Social carrying capacity is felt when decrease in visitor's enjoyment and increase in crime indicators exceed social carrying capacity in a destination. This results to environmental damage. In planning for sustainable tourism development, tourism key players should reduce negative social-cultural impact of tourism on the host communities by designing behavioural code of conduct for both the tourists and the host communities that will revitalize the local cultural practices, enhances local image and encourages socio-cultural exchange.

Biophysical Carrying Capacity

This relates to the extent to which the ecological resources could no longer tolerate tourist's interference. This becomes more complicated because it deals with ecology which is able to regenerate to some extent. Therefore, biophysical carrying capacity is when the damage exceeds the habitat's ability to regenerate. Tourism key players should be determined to map out plans that will create equilibrium between the available tourist attraction and the number of tourists it can accommodate at a specified time to achieve sustainability. This can be done by checking excess wood logging and discouraging bush burning.

METHODOLOGY

The survey research design was adopted for the study. Data were collected from a sample of individuals through their responses to questions. According to Ponto (2016), survey research design uses either quantitative (questionnaire) or qualitative (open-ended questions) research strategies or both and often used to describe or explore human behaviour. In the present study, data were collected from Ebonyi State Ministry of Culture and Tourism staff and locals of the ten local government areas of the two senatorial districts where the attractions are located.

Study Population

The population for the study comprised residents from ten Local Government Areas in the two senatorial districts and staff of Ebonyi State Ministry of Culture and Tourism. The reason for the choice of these Local Government Areas was because the highest concentration of the tourism potentials is in these areas and the ministry is in charge of tourism planning and development in the state. The population for the study was infinite due to large population size of the State, including residents of the State. But the population for the staff of Ministry of Culture and Tourism, Ebonyi State was three hundred and ten (310) as reviewed from the records of the ministry.

Sample for the Study

A total of 560 respondents constituted sample size of the study. 385 was obtained across the ten (10) local governments and one hundred and sixty-one

(175) from Ebonyi State Ministry of Culture and Tourism (EMCT). This is to maintain the recommended sample size for an infinite and finite population at 95% confidence level for maximal information retrieval obtained using the Cochran and Taro Yamane formula. A researcher-developed questionnaire and observation were the data collection instruments.

Analysis of Data

Data were analysed with descriptive and inferential statistics such as means and standard deviation. Pearson correlation coefficient was used to test the hypothesis to determine the relationship between the two variables.

Research Question

What are the environmental protection principles applied for sustainable tourism development in Ebonyi state?

Table 1. Analysis to Determine the Environmental Principle Applicable in Developing the Tourism Potentials of Ebonyi State

Environmental protection principle	SA	A	D	SD	Mean	Std dev	Decision
Physical carrying capacity is not done in the tourist destinations	241(43)	262(46.8)	63(11.3)	15(2.7)	3.2268	.74971	Accept
No Economic carrying capacity was done on the tourist destinations	179(32)	254(45.4)	104(18.6)	23(4.1)	3.0518	.81741	Accept
The Social carrying capacity was not applied in developing tourism destination	235(42)	238 (43)	72(12.9)	12(2.1)	3.2482	.75919	Accept
There is no Biophysical carrying	247(44.1)	231(41.3)	63(11.3)	19(3.4)	3.2607	.78894	Accept

capacity in
 tourist
 destination

Note: N = 560, SA = strongly agree, A = agree, D = disagree SD = strongly disagree, weighted average = 3.2969

Environmental protection principle applicable in developing tourism potentials were itemized in table 1 above. From the table above, about 241 (43%) respondents strongly agreed, 262 (49%) agreed while 63(11%) disagreed and 15 (3%) respondents strongly disagreed that physical carrying capacity has not been applied at the tourist destination. Also, 179(32%) respondents strongly agreed, 254(45%) agreed while 104 (19%) disagreed and 23(4%) strongly disagreed that economic carrying capacity was applied in developing the tourism potentials. Conversely, about 235 (42%) strongly agreed and 238 (43%) agreed that social carrying capacity was not used in the destination, while 72(13%) respondents disagree and 12(2%) respondents strongly disagreed that social carrying capacity was used at the destinations. lastly, about 247(44%) strongly agreed that biophysical carrying capacity was not applied. Also 231(41%) agreed while about 63(11%) disagreed and 19 (3%) strongly disagreed that biophysical carrying capacity was not applied in developing the tourism potentials of the study area. This therefore suggest that environmental carrying capacity was not applied in tourism development at the destination. Also, the result of the mean values (3.2268, 3.0518, 3.2482 and 3.2607) and average mean value of 3.2969 which is higher that the cut off mark of 2.5 further buttressed that no environmental carrying capacity was applied in developing the tourism potentials of the study area.

Test of Hypothesis

Table 2. Relationship between Environmental Principle and Tourism Development

		Tourism Development
Environment principle	Pearson correlation	.823**
	Sig. (2-tailed)	0.000
	N	560
**. Correlation was significant at the 0.01 level (2-tailed)		

The table above revealed the relationship between environmental principle and tourism development. The Pearson correlation coefficient (.823** >0.001) revealed that a very high positive relationship existed between environmental principle and tourism development. Also, the significant value (0.00<0.05) which is less than the alpha value shows that there was statistically significant. This implied that applying environmental principle will have positive influence in developing tourism potential sustainably in Ebonyi state.

RESULTS AND DISCUSSION

Findings from the table above revealed that majority of the respondents agreed that environmental protection principle has not been applied for tourism development in the study area. This was evident as the weighted average (3.2969) and individual mean values of (3.2268, 3.0518, 3.2482 and 3.2607) for physical, economic, social, and biophysical carrying capacity were all higher than the set mean value of 2.5. Also, the result from hypothesis on table 2, using Pearson correlation, further buttressed the findings as the result from the relationship between environmental principle and tourism development was highly positive and statistically significant ($823^{**} > 0.001$) and ($0.00 > 0.05$).

This confirmed the previous study by Mato, (2016) on prerequisite of rural sustainable development in continental Croatia. The aim of the study was to outline the basic requirement for sustainable tourism development in creation using descriptive method. The findings revealed that introduction of environmental laws, carrying capacity and local community participation in tourism decision making is a way to develop sustainable tourism in Croatia. By this finding, tourism development if not properly planned, damages the environment and creates human-wildlife conflict, hijacks local tourism potentials by foreigners, decreases the wealth of the local people, causes cultural deterioration and non-community liberation and over exploitation of local natural resources. Furthermore, the finding of this study was in line with the findings in the study by Emeka, Okonkwo, and Odey (2017) on impact of sustainability on tourism development in Nigeria: A case study of Cross River State, Nigeria. The researchers also noted that the introduction of man-made structures has destabilized the ecosystem, disrupting the natural existence of biodiversity and wildlife.

Summary

From the findings of the study, it is pertinent to summarize as follows: It is very clear that tourism key players in Ebonyi state have not applied environmental protection principle in developing tourism potentials, even when the world is gradually moving away from synthetic to organic way of living and tourists are not left out of this emerging issue. Tourists are more concerned about their health and want to travel in a safe, secure environment that maintains its original resources. Also, the trend towards conserving ecology for the present and future generations necessitated that environmental protection principle be applied in developing tourism potentials.

CONCLUSIONS AND RECOMMENDATIONS

This study evaluated the application of environmental protection principle in developing tourism potentials in the area. This was done by ascertaining whether environmental carrying capacity has been applied in developing the tourism potentials of Ebonyi State. It was found that despite the numerous tourism potential in the study area, tourism developers have not applied environmental protection principle for tourism development in the study areas so as to ensure that the tourism resources are conserved for both the present and future generation. From the results of the findings, the researchers

recommended that tourism stakeholders should apply environmental protection principle in developing the numerous tourism potentials scattered all over the study area to ensure resource distribution for the present and future generations.

FURTHER STUDY

This research still has limitations so further research needs to be done on the topic "Application of Environmental Protection Principle in Developing Tourism Potentials of Ebonyi State."

REFERENCES

- Anggraini, R. I., (2021). Ecotourism effects on forest conservation and development in a way Kambas national park, Indonesia. www.utwente.nl
- Balamuralithara Fumihiko and Hidekazu (2019). Perceptions and attitudes towards sustainable development among Malaysian Undergraduate. *Journal of applied life sciences and environment*. Bangladesh. Retrieved from
- Bdlex. S. (2022). Principles of sustainable development and environmental imperatives in
- Ebonyionline, (2015). Top Attractions in Nigeria.
- Edwards, B. (2021). *A Rough Guide to Sustainability: 3rd Edition*. London: Earthscan.
- Emas, R., (2015). The concept of sustainable development: definition and defining principles.
- Emeafor, O., (2019). Tourism development in Ebonyi State: Insight into the challenges confronting the Ministry of Culture and Tourism. *Journal of Tourism, Hospitality and Sports*. Retrieved from www.iiste.org
- Florida International University.
- Hayley,S. (2021). Environmental impacts of tourism. implications for human action: literature review. *Cogent social science* 2 (1), 56-62. in Serbia. Retrieved from
- Kamar, P. (2021). Evaluating the antecedents of health destination loyalty: the moderating role of destination trust and tourist's emotions. London: Joeling Publishing.
- Mato B (2016). Prerequisite of sustainable development of rural tourism in continental Croatia *Journal of applied life sciences and environment*
- Mijatov, M. et al. (2018). Application of sustainable development principles in hotel business
- Mondal, S. H. (2017). SWOT analysis and strategies to develop sustainable tourism on Bangladesh.
- More, F. (2019). *Sustainable development and tourism development: synergism*. Indonesia: libretto publishers.
- Okonkwo, E. E., Odey, A. S. (2017). Impact of sustainability on tourism development in Nigeria: A Case Study of Cross River State, Nigeria.

International Journal of Research in Tourism and Hospitality (IJRTH)
Volume 3, Issue 2, 2017, PP 5-19.

Ponto, F., (2016). Tourism, trends and policies. Retrieved from

WTO, (2012). Tourism Satellite account-recommended methodological framework, WTO Madrid. Kingpign publishers.