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A study on the ecological impact of farm tourism in rural areas of kerala - with special reference to Wayanad district

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Abstract

Farm tourism, a growing niche within the tourism industry, involving visitors participate with agricultural activities and experiencing rural life. Tourism on farms a progressive approach in tourism industry for the sustainable development of the state. Mass tourism contributes the economy but it suffers certain ecological issues that are not easily manageable. The study examines both positives and negatives of the ecological impact of farm tourism. Farm tourism promotes sustainable agricultural practice enhance biodiversity through diversified farming and generate awareness about environmental conservation. It can also see that tourism may create increased waste, soil degradation, disturbances of local eco system. To understand the ecological impacts primary data collected from farm entrepreneurs and paper involve the valuable suggestions of farm entrepreneurs to sustainable development of rural areas.

Keywords: Farm tourism, ecological impact, opportunities, positives and negatives, sustainable development

Introduction

Farm tourism has emerged as a dynamic and expanding sector within the broader tourism industry. Farm tourism allows the visitors to experience the agricultural lifestyle, agriculture tours, activities such as farm stays, and engagement with various farming activities. Tourists on farm normally come from urban areas, they got a unique chance to authentic rural experience, the tourists reconnect with nature, understand the origin of food and engage in sustainable practices. Recently the farming sector face numerous issues for farming communities and the young generations are not interested in farming activities. The process of fast-growing urbanization and industrial development make village people from agricultural roots. Farm tourism a crucial bridge for farming communities to overcome the serious issues faces by the farmers in rural areas.

The environmental implications of farm tourism are complex and occupy a high degree of impact on sustainable growth. From the part of farmers adopt sustainable farming practices. Farms may introduce organic farming, crop rotation and promote agro forestry to attract eco conscious tourists. Moreover farm tourism often involves educational components, raising awareness about the importance of sustainable agriculture in the farm visitors. These interactions of farmers with the farm visitors lead to broader community support for ecological preservations. The increase in the tourism activities in the farms also crate some sort of challenges. There is a chance of waste management issues increased water usage, soil erections. The process of converting the farm-to-farm tourism destination require construction of tourism infrastructure can disrupt local eco systems and habitat of many plants and animals

The traditional conservation of natural resources, biodiversity attitude of farmers, homely atmosphere of tourism activities are attract both domestic as well as international tourist to experience the divine segment of the rural areas. The farm tourism offered a considerable potential for integrating the farmland with rational tourism operations. In the first half of the last year 2023, 1,06,83,643 visitors from our country participate tourism practices. The statistics revels that an increase of 17.87 lakh domestic tourists in the first half of the year 2023 than compared to the last year. The statistics of foreign tourists' arrival up to the first

half of the last year 2,87,730 as compared to the last year 1,05,960 the corresponding period of last year an increase of 171.55% growth. The state of Kerala earns a significant increase in the income generated from tourism sector. Tourism arrangements and policies of the state of Kerala attract lot of domestic as well as international tourist to the state.

Framework of Study

The framework of the study assumes that farm tourism a developing idea for the sustainable development of the rural areas. Most of the population in rural areas are mainly depends on agriculture and small-scale mercantile activities. The concept of sustainable development involves the development of the local communities without disturbing the ecology. There are various elements are related to ecology involves biodiversity, climate, human elements, legal issues, wildlife habitats. Especially in rural areas farming communities maintain a friendly relation with the ecology. Recently farmers faced various issues but the main issue is unbalanced and low income of the farming sector. The implication of the farm tourism operations in the farms a successful solution for solving number of issues related to the farming communities. The paper covers the ecological influence of farm tourism for sustainable development of the rural areas in Kerala.

Location

To understand the ecological impact of farm tourism in rural areas, primary data collected from the farm entrepreneurs from Wayanad district in Kerala. The district is in the Western Ghats and famous for biodiversity. Most of the people are farmers. The district is covered with thick forest and friendly place for wild animals. Farmers from these areas cultivate paddy fields, spices, coffee, tea plantations, fruits and flowers. The biodiversity and natural attractions international and domestic tourists like to travel and stay here.

There are many farmers operate farm tourism in their farms. Farm tourism enhances overall infrastructure better accommodations, attractive restaurants to the tourists. The economic benefit from farm tourism not only beneficial for the tourism entrepreneur but the local community.

The growing number of farm tourism preserves local traditions and culture. The farmers get a chance to protect the biodiversity and protection of environment by keeping agricultural land. The practice of tourism in farm land generates a platform to sustainable agricultural practices.

Ecological Aspects of District

The district of Wayanad a populated area covers forests in most of the district. There are number of tribal communities are lives in rural and forests areas of the districts. These tribes are closely associated to the environmental specialities of the areas. The last century witnessed the fast-growing migration of some other communities in to the districts, planted forests, new cultivations, large plantations, changes in construction methods affected the ecological system and bio diversity of the district. Geographically the area lies in between Latitudes N10 45' and 10 57' & Longitudes E 76 44' and 76 57'. The district is a part of the Western Ghats and covers full of beautiful landscapes, hills and mountains. As considered cultivation most of the area soil is fertile, suitable for paddy fields and spices

cultivation. Majority of the local and migrated communities engaged in farming activities. The converted use of land other than cultivation seriously affecting the bio diversity; and cause natural calamities in the areas.

Review of literature

UNWTO defined "Tourism comprises the activities of persons travelling to and staying in place of outside their usual environment for not more than one consecutive year for leisure, business and other purpose" WTO March 30 2010. According to the WTO Tourism have occupies, a vital role for the growth and development of the economies of most of the countries. Tourism strongly contributes the revenue sector of an economy, development of infrastructure of a country, creation of jobs, cultural exchange between foreigners and citizens. March 26, 2019

The overall development of rural areas necessitates not only the participation of agricultural sector but requires the involvement of non agrarian sector. The complexity of poverty level in rural areas farmers entertain alternate source of income from farm land. The multi functionality of agriculture paved the way for development of tourism and environment protection. Here agro tourism occupies a greater importance for the comprehensive development of rural communities. The aim of agro tourism philosophy is to increase farmers' income and better life for rural communities. --Dr. Sharmila Bose (2019) ^[2]

Researchers argue that while developing the process of farm tourism, utmost care is necessary for the protection of environment because farmers those who raise all forms of resources from its environment. A sustainable development pattern is necessary for the health of environment for long term practice of tourism. In order to protect our planet, farm tourism ensures more hope to the rural community. The idea of circular economy in farm tourism creates and adopts a sustainable development of farm tourism activities. Ie, sustainable use of resources are not only for the present people but to keep and protect for the next generations. Circular economy in farm tourism suggest a model for effective use of natural resources to accomplish sustainable development.-- Ramona hanza (2018) ^[3]

The growth of sustainable food culture and green farm tourism in Devon in UK point out the scope for territorial resources mobilisation, village communities, socio economic growth, socio environmental and socio cultural sustainability. Farming companies find and practice alternate farming activities with economic, socio cultural and socio environmental role, which is beneficial for farm houses and which directly or indirectly beneficial for rural community and society. --Rural Development and Farm tourism in Devon (UK) Cardiff (Sept, 2010)

The success factors of farm tourism involve location advantages, customers, satisfaction, resources management, promotion and publicity. Government support have occupies a significant influence. The availability of timely, financial and administrative services of government agencies promotes farm entrepreneurship. --Krishna D.K, NV Kumbhare (2020) ^[5]

Study Objectives

The significance of the environmental protection is increased today because of the global warming and climate changes. There are various efforts and plans and drawn and implemented by the government authorities and NGOs.

Ecologically sensitive areas and villages have a great role to protect the natural habitat. Farmers from villages perform better efforts to protect the environment.

The major objective of the present study involves,

- To study the ecological impact of farm tourism for the sustainable development of rural areas.
- To understand various benefits of integrating agriculture with tourism operations.
- To develop findings and suggestions for the tourism operations for future planning and decision making.

Need for study

Farm tourism significantly influences the economic development by providing additional income for farmers. In many economic transactions doesn't consider the factor of ecological conservation of the environment. The development and environmental protection is contradictory subjects for many cases. In the present situation, farmers face lot of constraints to continue farming activities, environment face serious threats regarding the sustainability of the nature, reduced satisfaction level of mass tourism, reduced individual considerations expected by the tourists, cultural protection requirements. A study on farm tourism and ecological impacts required to understand the contribution of additional income for farmers, contribution to the local GDP, job creation, and infrastructural development. The area of study is beneficial for farmers, local government institutions, communities to create a positive impact of farm tourism for sustainable development. From the literature study and primary data collected from the farm entrepreneurs reveals that tourism on farms is a warm idea to protect the environment.

Research Methodology

The objective of the study is to examine the ecological impact of farm tourism for the sustainable development of rural areas. The area of study covers the rural areas of Kerala, especially ecologically sensitive places where many farmers and small merchants associated to farming activities. It aims to investigate how the farming communities successfully operate farm tourism operations without disturbing the ecology. The facts regarding the farming sector in Kerala reveals that majority of the farmers

are associated to the Western Ghats locations. These areas are highly sensitive areas require preservation of natural habitat.

There are various studies and research journals are published, related to the farm tourism in Kerala. Tourism and agriculture are combines farm tourism which is beneficial for both areas. Entertainment in farms occupies a long years' experience in European countries but it's a recently developing concept in Kerala. The review of literature indicates that farm tourism has Socio Economic, Environmental and cultural implications in the communities. Farm tourism operations are directly beneficial for different groups involves the farm entrepreneurs, farm visitors, local communities.

To understand the facts regarding the ecological impacts primary and secondary data are used for the study. The secondary data are collected through various published journals, Government reports, previous studies, online medias. Data which are collected from various secondary sources are useful to understand and develop questionnaire. The study is closely related to the opinion of the farm entrepreneurs about the ecological impact of farm tourism. The researcher used sample survey because of the wide Population. Through judgemental sampling the researcher collects data from 40 respondents those are associated to farm tourism sector.

Limitations

The area of study is limited to Wayanad district from Kerala. Primary data collect from only 40 respondents for the study. From the study researcher try to find out ecological impact of farm tourism in rural areas. Farm tourism is a form of entrepreneurship formed by farming community to earn additional income for farmers. Farm tourism has provided economic social cultural and environmental benefits to the local community. From the survey, it can be observed that ecological relevance of farm tourism for the sustainable development of rural areas. Farms are usually preserve natural resources and landscapes, use energy saving models in farm land, a good waste and sewage management system in the farm houses. More over farmers encourage eco-friendly behaviour to the community.

Analysis and Discussion

Table I: Ecological Impact Of Farm Tourism in Rural Areas

S. No	List of questions	Strongly agree		Agree		Neutral		Disagree		Strongly disagree	
		Sum	%	Sum	%	Sum	%	Sum	%	Sum	%
1	Farm tourism purely preserve natural resources and landscapes	28	70	8	20	2	5	2	5	0	0
2	Renewable and energy saving technology model experience by farm tourism	16	40	10	25	14	35	0	0	0	0
3	A good waste and sewage management system prevailing in farmhouse	20	50	18	45	2	5	0	0	0	0
4	Raise the awareness of local people to protect natural resources	21	52.5	12	30	7	17.5	0	0	0	0
5	Encourage eco-friendly behaviour by tourists through awareness raising and information	9	22.5	23	57.5	8	20	0	0	0	0
6	The garbage and littering in rural areas have increased through farm tourism	0	0	0	0	4	10	16	40	20	50
7	There has been interference in wildlife habitat and their breeding cycle	0	0	6	15	5	12.5	10	25	19	47.5

Table 1 indicate that 70% of the respondents belief that farm tourism a good way to conserve the natural resources and

land scape. The way of tourism on farms doesn't destroy the natural resources but to conserve and exhibit an attraction

for the farms. It doesn't promote additional constructions and change of farm land for tourism. Among 20% of the respondents are agree and support the significance of farm tourism for the preservation of natural resources. The rest of 5% have no opinion regarding the involvement of agro tourism and 5% are disagreeing with the statement. The concept of renewable and energy saving technology model experience by farm tourists, considered as a best outcome of the farms. The responses from the farm entrepreneurs indicate 40% of them are strongly agree and 25% of them agree about this matter. But a considerable number of farmers 35% opinion shows the tourists are not interested to understand and adopt the energy saving models. The analysis done on the basis of different views of farmers, the idea of waste and sewage management system adopted in farm house indicate 50% of the farms are effectively develop and manage a good system in their farm house. These systems are implemented according the geographical features of the farms. The response of 45% are agree that their farms provide priority for the waste management system, but a small percentage of farmers are not bothered about the waste management system.

The study reveals that the response of 52.5% of the farms strongly support the relevance of preserving the natural environment for the future generations. It's a wide area and require the support of local people for conserving the natural habitat. The rest of the 30% of the farm entrepreneurs agree to the opinion, and 17.5% of them not considering the significance of local involvement in nature protection. The response regarding encourage eco-friendly behaviour by tourists through awareness raising shows that only 22.5% of them are successful and 57.5% of the farm entrepreneurs agree to the importance of awareness creation in the mind of others. The rest of 20% of the response are Neutral about it. Reveals a small percentage of the farm tourism centres doesn't promote environmental protection measures. The issue of garbage and littering are serious issues in rural areas because of the increased population and lack of awareness about the significance of ecological conservation. Table.1 depicts that 50% of the respondents are strongly disagree that farm tourism doesn't generate garbage and littering in rural areas. It can be seen that 40% of them are disagree about the issue. There are 10% of the farm entrepreneurs are neutral regarding garbage and littering issues in rural areas. One of the serious problem face the rural people is the interference of wild animals. Farm tourism is a nature friendly farming technique with entertainments. The study reveals that 47.5% of the responses strongly disagree about the interference of farms in wildlife habitat and their breeding cycle. There are 25% of them are disagree and 12.5% of the responses Neutral about this matter. There is only 5% of them are interested in the protection of wildlife habitats.

Findings of the Study

1. Farm tourism occupies a great role for the protection of ecological balance in rural areas.
2. The farming communities develop and promote renewable and energy saving technology models for present and future generations.
3. The threat of waste management can be effectively solve through the promotion of farm based tourism in rural areas.
4. The people from villages are more aware about the

significance of neatness of environment and conservation of natural habitats.

5. It's a successful way to encourage eco-friendly behaviour of tourists through awareness raising and development of conservation models.
6. It's a possible way to preserve wildlife habitats and conserving the breeding cycle.
7. Farm tourism can promote biodiversity by encouraging the preservation of landscapes and traditional farming practices.
8. Farm tourism involves educational components that raise awareness about sustainable farming practices in rural areas.
9. It is a way to maintain agricultural land and try to develop eco-friendly behaviour in rural areas.

Suggestions

1. To understand the impact of, how the farm tourism preserve local biodiversity and maintaining native species and habitats.
2. Explore sustainable land use practices in farm tourism to balance agricultural productivity with considering ecological conservation.
3. Examine the effectiveness of environmental education programs I farm tourism for raising visitor awareness about sustainability.
4. Analyse waste management system in agrotourism focusing on reducing pollution and promoting recycling.
5. To understand the support of sustainable tourism practices on climate changes and adopting strategies.
6. Explore the synergies between cultural heritage preservation and ecological sustainability.
7. To maintain long term ecological monitoring to assess on going environmental impacts of agro-tourism.

Conclusion

Tourism a fastest growing industry, it influences the economic, social and cultural ecological sectors of the state. Agro-tourism considered as a good model to the rural areas which offer positive contributions to environmental conservations and also certain potential risks associated to the eco system. Farm tourism can enhance biodiversity by preserving traditional agricultural practices and landscapes, which serve as vital habitats for various species. Farm tourism offer opportunities for environmental education through raising awareness among visitors about sustainable farming practices and the importance of protecting natural resources. These efforts connect the people with the environment and encouraging more sustainable behaviour beyond the farm setting. The growth of farm tourism also posses ecological challenges that must be carefully managed. Increased human activity can lead to habitat loss, pollution and greater strain on local water and energy resources. Without proper planning and sustainable management the environmental benefits of farm tourism adversely affect the natural habitat system. To ensure that farm tourism contributes positively contribute to rural eco system, it is necessary to adopt eco-friendly waste management, energy efficiency measures and conservation strategies that minimise the pressure on environment. Farm tourism beneficial for farming communities in economic sustainability, long term growth, creation of reputation in the community. Farm tourism is a powerful tool for farmers

economic development through the preservation agricultural traditions. Though efficient implementation of farm tourism promote sustainable rural life, farming activities, local culture, farm tourism attract eco loving tourists, generate income for farm entrepreneurs and the local community.

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