

## Households' Choice for Tourism Occupations: A Study in Kaziranga and Manas National Parks of Assam

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### Abstract

*Nature-based tourism in wildlife-protected areas has the potential to diversify the local economy. It provides employment and income-earning opportunities to locals near wildlife destinations. Creating economic opportunities for local households through tourism can compensate for the losses they incur due to the declaration of protected areas. Further, economic opportunities may also help the conservation process as the local people are the protected areas' co-managers. However, the various opportunities provided by tourism may not be accessible to local households as the industry often creates a tourism enclave dominated by large investors. In this regard, it is important to assess the factors influencing the choice decision of the locals in tourism-related income-earning opportunities. This study can help to make the necessary institutional and other arrangements for creating an environment to ensure more participation of local people in tourism-related occupations.*

### Introduction

The travel and tourism sector are emerging as one of the fastest-growing economic sectors globally. From 2008-09 to 2018-19, the annual average growth of international tourists was 5.32 per cent. In the year 2019-20, international tourist arrivals were 1.5 billion globally, which is 6.83 per cent increase over the previous year<sup>3</sup>. The compound annual growth rate (CAGR) for international tourist arrivals from 1995-96 to 2019-20 is 4.3 per cent. The positive global growth in international tourist arrivals confirms tourism as a leading and resilient economic sector. The data at the regional level reflected that South Asia was the fastest-growing sub-region in Asia and the Pacific in terms of international visits in the year 2017-18, which was mainly due to the strong growth in international visitors in India in the recent period, which was more than 15 per cent in 2017-18 (Hecker, 2018).

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<sup>3</sup> Data source – UNWTO World Tourism Barometer, 2019.

India has occupied 34th rank, out of 140 countries, in the Travel and Tourism Competitiveness Index (TTCI), prepared by World Economic Forum (WEF) in 2019-20. The TTCI ranking for India has been improved, which was 52 (out of 141 countries) in 2015-16 and 40 (out of 136 countries) in 2017-18. The sector is also an important source of foreign exchange earnings (FEE) for India. In 2018-19, the FEE from tourism was Rs. 194,881 crores, compared with Rs. 177,874 crores in 2017-18. The FEE in 2018-19 from tourism in India has registered a growth rate of 9.6 per cent over the previous year. The industry has created 26.74 million jobs in India, which was 5.1 per cent of the total employment in the country in 2018-19.<sup>4</sup>

Nature-based tourism, a subset of the tourism industry, has recently gained popularity among visitors in developing countries. Existing works reflect the demand for protected wildlife areas<sup>5</sup> Nature-based recreational activities have increased in recent decades (Pergams & Zaradic, 2008; Balmford et al., 2009; Karanth & DeFries, 2010). In the case of India, it is observed that there is an increase in middle-class households<sup>6</sup> and constitutes 33 per cent of the total population in 2014-15 (Ramanathan & Ramanathan, 2019). The McKinsey Global Institute also forecasts the increase in middle-class families in India from 250 million in 2015-16 to 583 million in 2025-26. The increase in middle-class households in an emerging economy like India will likely generate more future demand for nature-based tourism in different regions. The increase in demand for nature-based tourism can help conserve resources and generate income and employment in the host region.

The local population of a particular destination is significantly influenced by the promotion of tourism in the destinations. Tourism can positively influence the local households' overall economic activities in a nature-based destination such as a wildlife area. From the development perspective of tourism, academicians and policymakers have also given attention to tourism employment and income generation, particularly for the poorest section living nearby remote destinations (Taylor, 2010). However, due to the range of impacts and the stakeholders involved, there is a need for holistic approaches to be followed in tourism development plans that emphasize more inclusiveness to local people. In this respect, it is crucial to investigate the issues related to the tourism occupation of the local households near the tourism destination(s). The paper, therefore, attempts to discuss the factors that determine the choice decision of the local households for tourism-related occupations available in

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<sup>4</sup> Data source – Tourism Satellite Account Research, World Travel and Tourism Council; India Tourism Statistics, 2019, Ministry of Tourism, Government of India

<sup>5</sup> The International Union for Conservation of Nature (IUCN) defined a protected area as an area of land and/or sea with natural and cultural resources established for the protection and maintenance of biological diversity and managed through legal or other effective means. They cover various situations, such as managed resource areas, protected watersheds, national parks, protected reserves, etc. Another definition given by Convention on Biological Diversity (CBD) refers protected area as a geographically defined area regulated and managed to achieve specific conservation objectives.

<sup>6</sup> The McKinsey Global Institute defines middle-class households in India as households that have real annual disposable incomes between Rs. 200,000 and Rs. 1,000,000

two popular wildlife destinations of Assam, a North-Eastern state of India. The work has focused on two main objectives.

1. To find the factors that determine the local households' selection of tourism occupation.
2. To explore the possible ways to make tourism economically more supportive to the local population living nearby a particular destination.

### **Review of Literature**

Tourism has occupied an important place in academic discussions about conservation and economic benefits to people in nature-based destinations of developing countries (Goodwin, 2002; Sekhar, 2003; Guha & Ghosh, 2007). Promoting tourism in developing countries is a crucial strategy that can lead to community development and poverty alleviation. The industry has been considered the critical means for nature-based destination managers seeking to re-orientate their marginalized local economies (Ashley & Roe, 2002; Binns & Nel, 2002). Some studies reported various advantages of tourism as a strategy for giving economic opportunities to the local people living adjacent to a tourism site (Bennett, 1999; Ashley et al., 2000; Guha & Ghosh, 2007; Lundmark et al., 2010). First, there is a scope for selling local goods and services as tourists come to the destination. The direct interactions of tourists with the locals create an environment for the diversification of their occupation. Second, the importance of tourism in wildlife areas is more as these areas are generally located in remote regions, where the majority of the people are poor. These people have few other options, which can be altered by promoting tourism as it can tap various opportunities associated with cultural, wildlife and landscape diversity in these areas. Third, tourism offers labour-intensive and small-scale opportunities compared with other non-agricultural activities, which are compatible with the limited assets belonging to the locals. Fourth, the high-income elasticity of the sector offers a rapidly growing market where products and services can be built on existing natural and cultural resources. Last, there are other spillover effects arising from better infrastructure, such as health, education, communication and security, which can help accelerate productive activities and improve the living conditions of these people.

Indigenous and local communities are also the co-managers of many wildlife destinations designated as protected areas. They are adversely affected by the declaration of protected areas for the conservation of natural resources. They suffer direct and indirect losses such as loss of access to various resources (fuel-wood, fodder, non-timber forests products), crops and livestock losses due to infestation of wild animals, etc. Thus, conservationists emphasize economic and social issues prevailing in nearby places of protected areas by realizing that many of these areas have limited prospects without the cooperation and support of local people, especially in developing countries (Wells & McShane, 2004). Promoting tourism in these areas can create more sustainable livelihoods for local communities. Employment opportunities such

as shopkeeper, cook, housekeeper, tour guide, etc., offer alternative income sources in place of environmentally destructive actions such as logging, quarrying, over-fishing, poaching, illegal timber extraction, etc.

The works related to the tourism impact on local economies mentioned that, in reality, the various opportunities provided by tourism might not be accessible to households living in the peripheral areas of a destination (Goodwin, 2002; Dieke, 2005). In such a situation, the sector is like a myopic private sector (Spenceley, 2001), often dominated by large investors such as international companies and elites, whose profits are generally repatriated abroad or to the metropolitan centers (Ashley et al., 2000). National governments and donor organizations further aggravate the situation in developing countries. They emphasize promoting private sector investment in tourism development policies without any emphasis on the needs and opportunities of local people. On the other hand, they fail to transfer the non-commercial tourism benefits due to their weak fiscal and planning instruments. The weak linkage between the large private investors and the local economy, the limited role of the government, etc., leave fewer opportunities for the locals to harness tourism's economic opportunities and sell their products in the market.

The adverse impacts, which may occur from the promotion of tourism, do not indicate that the potential of tourism in addressing the livelihood of the locals is less. There are success stories in Kenya, South Africa, Zimbabwe, and other African countries, where tourism is supported with a solid institutional framework (Sekhar, 2003). The major aim of such promotion is to diversify the local economic base into sectors that usually bring economic opportunities for the local people. The Economics of Ecosystems and Biodiversity (TEEB), established by the G8<sup>7</sup> and developing country environment ministers argued that the "natural capital" if properly utilized, could help countries to enhance the quality of life and boost the economy at a local level. As a developing country, people's dependence on natural capital in India is higher than in higher-income countries. Therefore, transforming these natural resources into other forms of wealth is essential for the development and continued survival of the protected areas (Ministry of Environment and Forests, 2011), where tourism can be an effective means of achieving various targets of the transformation process. A study by Guha and Ghosh (2007) in Indian Sundarbans found that local tourism participants spend 19 per cent more on food and 38 per cent more on non-food items than non-participants. This may also have a conservation effect as the proportion of forest-dependent households was significantly lower among tourism-participant households.

The literature exploring tourism's impact on local people emphasizes the promotion of tourism in transferring economic benefits to local people in protected areas such as national parks. They have mentioned different advantages that may occur to local people from tourism and its beneficial impact on the conservation of protected areas.

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<sup>7</sup> a group of eight major economies: France, US, UK, Russia, Germany, Japan, Italy, and Canada

In this respect, it is also important to see whether the local households can grab the opportunities of tourism or not by engaging themselves in different tourism-related occupations. However, most of the literature on tourism in protected areas does not give much attention in this direction. Therefore, the paper attempts to investigate the factors determining the participation decision of the local households in different tourism-related occupations in the two most popular wildlife destinations of Assam, a North-Eastern state of India. The paper is based on field-level analyses, which try to find out how tourism can augment local livelihoods and possible ways to make the industry more supportive of local people in nearby protected wildlife areas.

### **Study Area Database and Methodology**

The study is based on primary data collected from the villages near the two wildlife destinations of Assam, viz. Kaziranga and Manas national parks. Kaziranga and Manas attract most of the wildlife visitors compared with the other wildlife areas of Assam. The data of the Principal Chief Conservator of Forest (Wildlife) and Directorate of Tourism, Assam, show that Kaziranga attracted 75 per cent of the total wildlife visitors of Assam in 2016-17. Manas has the second rank in terms of the number of visits to the wildlife areas of Assam. About 16 per cent of the total wildlife visitors visited Manas during 2016-17. Primary data are collected through a household-level field survey. Kaziranga National Park (KNP) has five ranges, and among them, Kohora and Bagori are famous for visitors, where most recreational activities are performed. Similarly, out of the three ranges in Manas National Park (MNP), Bansbari is popular among visitors for recreational activities. The villages nearest the three ranges of KNP and MNP, where tourism activities are being promoted, are selected for the data collection. Apart from that, the availability of participant households<sup>8</sup> is also considered as a selection criterion of the sample villages.

Before going to the final data collection from the households, a pilot survey was undertaken by considering 50 individuals from each group. Moreover, feedback from the park officials and the officials of non-governmental organizations (NGOs) operational for tourism promotion is considered for the necessary revision and finalization of the interview schedule. Other relevant information has also been collected through focus group discussions (FGD) with the locals and the officials of NGOs operational in those areas. After selecting the villages, stratified random sampling is used to collect the data from the households. The sample households are divided into two groups: participants and non-participants in tourism. Participant household includes at least one member from the household, engaged in a tourism-related occupation. A total of 320 samples were selected for the analyses, including 160 participants and 160 non-participants in tourism activities. Descriptive and appropriate test statistics are calculated to determine the factors influencing the households' tourism occupation participation decision.

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<sup>8</sup>. The information on the participant's household is gathered through focus group discussions (FGDs) and from the park authority.

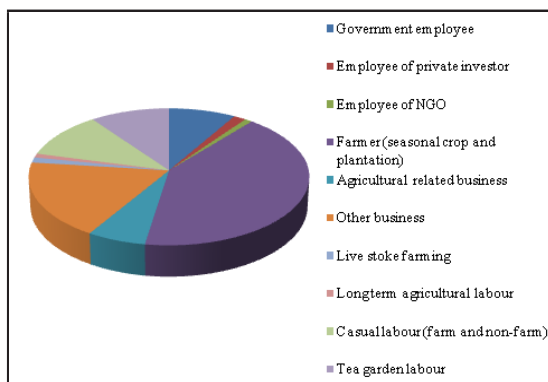
### A Profile of the Sample Households

Primary data have been collected from the nine villages of Kaziranga and Manas national parks to analyze the factors influencing the tourism occupation participation decision of the households. Table 1 represents the gender, age and marital status of respondents from the 320 households interviewed during the field survey.

**Table 1: Gender, Age and Marital Status of the Respondents**

Variable	Category	No of respondents	Percentage of the total
Gender	Male	296	92.50
	Female	24	7.50
Age (in years)	18-30	59	18.44
	31-40	113	35.31
	41-50	104	32.50
	51-60	40	12.50
	61 and above	4	1.25
Marital status	Married	289	90.31
	Unmarried	28	8.75
	Widow	3	0.94

**Figure 1: Principal Occupations of the Households**

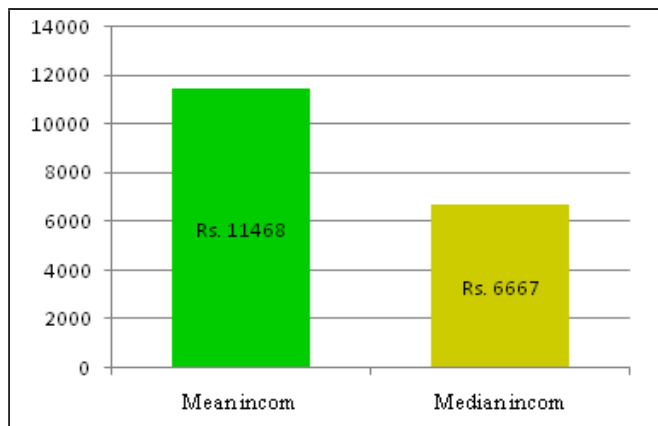


Most of the respondents are male. The distribution of age shows that majority of the respondents are in the age groups of 31 years to 50 years. Figure 1 represents the principal occupations<sup>9</sup> of the households interviewed in the nine adjacent villages of KNP and MNP. Agriculture and allied activities are the main source of livelihood for the majority of the households in the villages.

<sup>9</sup> To define principal occupation, the definition of NSS has been used. When a person is pursuing only one type of economic activity, the sector of such economic activity will be his or her principal industry, and the function of the person will be his principal occupation. When a person pursues two or more economic activities, the economic activity in which more labour time is spent will be his or her principal economic activity. The economic activities in which relatively less labour time is spent will be his or her secondary/subsidiary economic activity.

The monthly incomes of the majority of households are low. Figure 2 represents the calculated mean and median monthly incomes of the 320 sample households. The average monthly income of the households is Rs. 11,468, and the median monthly income is Rs. 6,667. The median income reflects that 50 per cent of the households earn less than Rs. 6,667 per month. Moreover, the lower value of median income compared with the mean monthly income reflects that larger proportions of households have significantly low monthly incomes.

**Figure 2: Mean and Median Income of the Households**



The Gini coefficient is calculated to estimate the extent of income inequality among the sample households. The estimated value of the Gini coefficient is 0.336, which is found relatively equal among households (Todaro & Smith, 2012). The average monthly per capita income (MPCI) of the 320 households in the nine villages of KNP and MNP is Rs. 2,570. The median value of the MPCI for the households is Rs. 1,583. This reflects that the MPCI for 50 per cent of the households are less than Rs. 1,583, and thus, larger portions of the households have very low levels of MPCI. Table 2 shows the summery statistics of incomes of agricultural households and non-agricultural households.

**Table 2: Descriptive Statistics of Incomes of Agricultural and Non-Agricultural Households**

Indicators	Agricultural households	Non-agricultural households
Lower quartile	4208.33	4166.67
Median	5833.33	6250.00
Upper quartile	8333.33	12500.00

There is a considerable income gap between the agricultural and non-agricultural households. The median income of the agricultural households is around 7 per cent less than the non-agricultural households. The result reflects that agriculture and allied activities remain the principal source of income for the households. However, the income

gap reflects the higher economic stress among farm households. These households may engage themselves in other economic activities such as tourism to increase their level of income (Saini et al., 2022). The following sections are organized to identify the factors influencing the tourism participation decision of the households in KNP and MNP.

## Factors Influencing the Tourism Participation Decision of the Households

### Age and Tourism Participation Decision

There are studies (Borgoni et al., 2002; Siddiqui & Hamid, 2003) which find that household characteristics such as age, education and employment of the household head<sup>10</sup> along with other determinants can explain the variability in the household's decision. Table 3 represents the age distribution of the household head of the participant and non-participant households of tourism in the sample villages of KNP and MNP.

**Table 3: The Age Distribution of Heads of the Participant and Non-Participant Households**

Age	Occupation of tourism		Total
	Yes	No	
18 years – 30 years	42(71.19)	17(28.81)	59(100)
31 years – 40 years	62(54.87)	51(45.13)	113(100)
41 years – 50 years	40(38.46)	64(61.54)	104(100)
51 years and above	16(36.36)	28(63.64)	44(100)
<b>Total</b>	<b>160(50)</b>	<b>160(50)</b>	<b>320(100)</b>
Pearson Chi-square(df = 3)	20.475***		
Likelihood ratio(df = 3)	20.911***		

*Note: The figures in the parentheses indicate percentages to the total in each category; and \*\*\* indicates  $p < 0.01$*

The age distribution of the households' head shows that the number of households engaged in tourism activities declines with the increase in age of the head of the household. Table 4 shows the mean comparison of the age of the households' heads of participant and non-participant families.

Table 4 reflects that there are older persons in the households who are not engaged in tourism-related occupations. The mean age of the head of participant households is 38.23 years, which is less than the mean age of the non-participant households (42.73 years). Moreover, the higher median age (45 years) of the non-participant households' heads compared with their mean age indicates more elderly persons in the households who have not selected tourism as their occupation.

<sup>10</sup> Census of India, 2001 has defined household head/or head of the household as one who is recognized to be so by the household. Such person vests chief responsibility for managing the affairs of the household as also the decision-making on behalf of the household.



**Table 4: Comparison of Age of the Households' Head of the Participant and Non-Participants of Tourism Occupations**

Descriptive and test statistics	Age of the head of the household	
	Participant	Non-participant
Mean	38.23	42.73
Median	38	45
Standard deviation	10	8.77
Observation	160	160
t-statistic	4.281***	

Note: \*\*\* indicate  $p < 0.01$

### Level of Education and Tourism Occupation Participation

Education significantly influences the households' decision to select an occupation. This is because some job-related characteristics may also restrict certain households from entering a particular occupation. The new occupation requires particular skills to be more productive, and educational achievement, training, cognitive abilities, etc., help the workers to acquire these occupation-specific skills. Empirical results have shown that individuals with higher educational achievements are more likely to choose higher-ranking jobs (Nasir, 2005). Table 5 depicts the number of participating or non-participating households in tourism-related occupations on the basis of level of education of head of the household.

Table 5 reflects that majority of the head of the households have education up to higher secondary level (H. S.). There are only 28 households where the head of the households have attained higher education. Among them, 89.28 per cent households have chosen tourism-related activities as their source of subsidiary income.

**Table 5: Number of Tourism Participating and Non-Participating Households in Terms of Level of Education of Household Head**

Level of education	Occupation of tourism		Total
	Yes	No	
Upto H. S.	135 (46.23)	157 (53.77)	292 (100)
Graduate and more	25 (89.28)	3 (10.72)	28 (100)
Total	160 (50)	160 (50)	320 (100)
Pearson Chi-square(df = 1)	39.587***		
Likelihood ratio(df = 1)	48.980***		

Note: The figures in the parentheses indicate percentages to the total in each category, and \*\*\* indicates  $p < 0.01$

**Institutional Support and Tourism Participation**

The authorities and institutions, such as statutory, autonomous, non-government, government, etc., whose decision(s) and active support(s) in the fields of policy regulation, law, training, marketing, etc., can bring lots of advantages or disadvantages and thereby can change the work participation environment. The occupational participation decision of the households also depends on institutional support. Institutional arrangement(s) in the form(s) of financial help, training and other skill development programs, etc., may give an added advantage to those searching for new opportunities in the tourism industry. In case of awareness, training and skill development, government and other non-governmental organizations (NGOs) are actively involved at KNP and MNP. The department of tourism, Government of Assam has taken various initiatives to train young people to make them self-employed in tourism industry. Government training such as tourist guide, driving, etc., focus on improving the necessary skills of the individuals like communication, marketing, driving, etc. Apart from the government, there are NGOs in KNP and MNP who have been arranging awareness and training programs for the local people. These NGOs conduct training programs like dairy farming, bee-keeping, weaving, etc., which will empower the people to earn from their local resources. Table 6 shows the number of tourism participant and non-participant households who have availed benefits from different awareness and training programs conducted by the government and NGOs.

Table 6 shows that out of the 195 households that have received institutional help in the form of training and awareness, 55.38 per cent (108) are tourism participants and 44.62 per cent (87) are non-participants. On the other hand, among the households who have not availed institutional training, 58.40 per cent (73) are tourism non-participants and 41.60 per cent (52) are participants. The higher participation rate for tourism occupation by the households whose members get institutional support indicates the role of institution(s) in choosing tourism-related activities in the two national parks of Assam.

**Table 6: Number of Tourism Participant and Non-Participant Households Availing the Benefits of Awareness and Training Programs**

Awareness and training	Occupation of tourism		Total
	Yes	No	
Yes	108(55.38)	87(44.62)	195(100)
No	52(41.60)	73(58.40)	125(100)
Total	160(50)	160(50)	320(100)
Pearson Chi-square(df = 1)	5.790**		
Likelihood ratio(df = 1)	5.251**		

Note: The figures in the parentheses indicate percentages to the total in each category; and, \*\* indicates  $p < 0.05$

Apart from training, financial support by institutions in the form of credit plays a significant role for entrepreneurial activities of the local households. Banking institutions, insurance, etc., help people save money and take loan to face uncertainty during enabling business to start up, expand and compete with others in the market (Sutton & Jenkins, 2007). Thus, these services may help to reduce vulnerability of the poor households. It ensures utilization and management of assets of the poor households, which generate income for them. Bank, insurance companies, micro finance and credit associations are the common financial institution operated in the villages nearby KNP and MNP. In the field survey it is found that respondents have access to bank loans and micro finance institutions (MFIs). These are the predominant sources of finance used by the sample households. Considering the diversity of loans taken by the households, information have been gathered whether the households borrowed money from these institutional sources. Table 7 shows the number of tourism participant and non-participant households who have taken credit from the bank and MFIs.

**Table 7: Source of Credit for the Tourism-Participating and Non-Participating Households in the Sample Villages**

Source of credit	Occupation of tourism		Total
	Yes	No	
Yes	65(42.76)	87(57.24)	152(100)
No	95(56.55)	73(43.45)	168(100)
Total	160(50)	160(50)	320(100)
Pearson Chi-square(df = 1)	6.065**		
Likelihood ratio(df = 1)	6.085**		

*Note: The figures in the parentheses indicate percentages to the total in each category; and \*\* indicates  $p < 0.05$*

There are more numbers of tourism participant households who do not borrow money from the institutional sources. The observed result is not in line with the expected one. However, this is not necessarily unusual for the households whose income is low from their principal occupations.

### Discussions of the Results

The occupation of the households living in the sample villages shows that majority of them are engaged in the agricultural sector and other elementary works. The income of the households from primary sector activities are low. Apart from that, the problem of low levels of income in these villages is aggravated by the declaration of KNP and MNP as protected areas. The agricultural community in those rural areas suffers direct and indirect losses due to restrictions on the utilization of natural resources such as land, along with the infestation of wild animals to crop fields. Therefore, the loss of income in the agricultural sector can be compensated by giving them opportunities in the tourism sector, which allows them to diversify their occupation(s) as well as source(s) of income.

In case of age and tourism participation, it is observed that such occupational choice decision relates inversely to the age of the head of the household. Previous studies have also reported a negative relationship between age and occupational boundary crossing – as age increased, employees were less likely to change their occupations (Carless & Arnup, 2011; Kattenbach et al, 2014; Kornblum et al., 2018). Thus the result is consistent with the outcome of previous studies that shows a negative effect of age on all forms of career mobility. Younger people are more flexible in their living and working arrangements than the older individuals (Carless & Arnup, 2011), and thus, the household(s) with older head(s) may find prefer to continue with the current profession (principal occupation) of the family. This type of decision by older individuals occur because they have already acquired some degree of specialization and have substantial investment of resources in their current profession. Moreover, the available occupations in tourism sector at KNP and MNP are more suitable for younger individuals compared with older ones. This is because some activities in KNP and MNP like Jeep Safari, Elephant Safari, etc., are more preferable for younger age persons as they require significant amount of physical work. Moreover, tourism provides the scope of self-employment opportunities to the young age people at early stage of their working life, where they have enough time to manage the risk associated with their ventures. Thus, policies related to creating employment opportunities in tourism should try to encourage younger persons and assist them in entering the tourism market.

The tourism and hospitality industry requires dealing with customers as their guests, which depends on communication and other skills of the person selling products to the tourists. The seller of the products requires innovative idea(s) to represent the product(s) and service(s) in promoting area so that they look different and attractive to the customers compared with other destinations. Thus, a person with higher qualifications may have some added advantages while dealing with tourists. Apart from that, occupations such as tour guide, receptionist in hotels, driver of tourist vehicles, etc., also require good communication skills, and the only person with higher education can perform better in these occupations. These may be the possible reasons for the lower participation of the households not having higher education in the sample villages. However, it is equally important to indicate that lower participation in tourism-related activities is not only due to low levels of education. Persons with low levels of education can choose tourism-related activities as their occupation. Tourism is a service-based sector where people from high-skill to low can find income-earning opportunities. However, higher education of individuals suggests a tendency towards more rate of participation of the households due to their flexible (or soft) skills in offering better treatment to tourists coming to their destination. Majority of the individuals of tourism participant households (135 out of 160) having their education upto H. S. level. However, the rate of participation is very high (89.28 per cent) for households with individuals having higher education.

In case of institutional support, the results of the study reflects that tourism occupation participation are more for the households who have received institutional training. Thus,

it is essential to frame policies by the government and non-government organizations to support local individuals in order to increase their participation in tourism occupations by creation of necessary skills.

In the case of credit, there are more numbers of tourism participant households who do not borrow money from institutional sources (Table 7). However, this particular result of borrowing and tourism occupation participation is not necessarily unusual so far as households' income and principal occupations are concerned. In the absence of fully developed financial markets credit constraints as well as risk aversion can affect the decision for occupational choice of the households (Hill & Perez-Reyna, 2017). The income of the households are low, and agriculture and other elementary works are their principal occupations. The low-income households behave like risk averters trying to minimize their financial burden while starting a subsidiary occupation in tourism sector. Moreover, most of the occupations in the tourism do not require a huge financial investment.

### **Conclusion**

The wildlife-based tourism strategies in the state of Assam should accentuate tourism promotion by creating avenues for local participation to give the households an alternative source of income. There is a need to raise income of the households living in proximity to the KNP and the MNP through tourism related activities. . Economic benefit of tourism may change the negative attitude of the households towards the protected areas and, thus, indirectly help in the conservation of wildlife areas.

Policies from the government and private partner(s) can play an important role in making tourism more inclusive to local people. There is little scope for any institutional arrangement to directly address demographic variables like the age to increase local participation in tourism occupations. However, programs like skill development training could be designed to ensure the inclusion of more young people rather than older persons. This can increase the participation rate of the households by motivating the young unemployed members. The tourist guide training program, organized by the Department of Tourism, Government of Assam, could be a well-directed initiative in this respect if it could ensure the inclusion of young individuals. Although the tourism industry has the potential to provide employment opportunities for all levels of workers (from skilled to unskilled ones), the role of education in choosing tourism-related occupations cannot be ignored. The various stakeholders, either government or private, working with employment creation in the tourism industry should consider the importance of education and training and accordingly frame policies to empower the people of these areas in choosing livelihood opportunities. Moreover, the MPCII for the households is found to be low in the villages of KNP and MNP. Thus, if policies are adopted properly to encourage people living in proximity to the KNP and MNP to engage in tourism sector, then perhaps people will consider tourism as a main source of livelihood which may improve their socio-economic status. Tourism in Assam has

the potentiality but it needs a proper policy and execution of the same to bring the prosperity to the state through tourism.

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### References

- Ashley, C., Boyd, C., & Goodwin, H. (2000). Pro-poor tourism: Putting poverty at the heart of the tourism agenda. *Natural Resource Perspectives*, Overseas Development Institute, London, (51).
- Ashley, C., & Roe, D. (2002). Making tourism work for the poor: Strategies and challenges in Southern Africa. *Development Southern Africa*, 19, pp 61–82. <https://doi.org/10.1080/03768350220123855>
- Balmford, A., Beresford, J., Green, J., Naidoo, R., Walpole, M., & Manica, A. (2009). A global perspective on trends in nature-based tourism. *PLoS Biol*, 7, pp 1-6. <https://doi.org/10.1371/journal.pbio.1000144>
- Bennett, O. (1999). *Sustainable tourism and poverty elimination study: A report to the Department for International Development*. Deloitte & Touche, UK.
- Binns, T., & Nel, E. (2002). Tourism as a local development strategy in South Africa. *The Geographical Journal*, 168(3), 235-247. <https://doi.org/10.1111/1475-4959.00051>
- Borgoni, R., Ewert, U. C., & Prskawetz, A. (2002). *How important are household demographic characteristics to explain private car use patterns? A multilevel approach to Austrian data*. MPIDR Working Paper, Max Planck Institute for Demographic Research, Rostock, Germany.
- Carless, S. A., & Arnup, J. L. (2011). A longitudinal study of the determinants and outcomes of career change. *Journal of Vocational Behavior*, 78, 80-91
- Dieke, P. U. C. (2005). *Critical success factors for tourism development in less developed countries* [Paper presentation]. Tourism in the Toolbox of Development Projects, University of Leuven, Belgium.
- Goodwin, H. (2002). Local community involvement in tourism around national parks: Opportunities and constraints. *Current Issues in Tourism*, 5(3), 338-360. <https://doi.org/10.1080/13683500208667928>
- Guha, I., & Ghose, S. (2007). *Does tourism contribute to local livelihoods? A case study of tourism, poverty and conservation in the Indian Sundarbans* [Working paper (26)]. SANDEE, Nepal.
- Hecker, R. (2018). *Asia Pacific: Regional tourism trends* [Market Report]. Horwath HTL, May.
- Hill, E. & Perez-Reyna D. (2017). Financial Development and Occupational Choice. *Journal of Macroeconomics*, 1-17.
- Karant, K. K., & DeFries, R. (2010). Nature-based tourism in Indian protected areas: New challenges for park management. *Conservation Letters*, 4(2), 137-149. <https://doi.org/10.1111/j.1755-263X.2010.00154.x>

Kattenbach, R., Schneidhofer, T. M., Lucke J., Latzke, M., Loacker, B., Schramm, F., & Mayrhofer, W. (2014). A quarter of a century of job transitions in Germany. *Journal of Vocational Behavior*, 84, 49-58.

Kornblum, A., Unger, D., & Grote, G., (2018). When do employees cross boundaries? Individual and contextual determinants of career mobility. *European Journal of Work and Organizational Psychology*, 27(5), 657-668.

Lundmark, L. J. T., Fredman, P., & Sandell, K. (2010). National parks and protected areas and the role for employment in tourism and forest sectors: A Swedish case. *Ecology and Society*, 15(1), 19-41. <http://www.ecologyandsociety.org/vol15/iss1/art19/>

Ministry of Environment and Forests (2011). *India launches major new study for valuation of its natural capital and ecosystem services* [Press brief]. Government of India, New Delhi. <http://moef.nic.in/downloads/public-information/2011-02-23%20Press%20Brief%20-%20TEEB%20India.pdf>

Nasir, Z. M. (2005). An analysis of occupational choice in Pakistan: A multinomial approach. *The Pakistan Development Review*, 44(1), 57-79.

Pergams, O. R. W., & Zaradic, P. A. (2008). Evidence for a fundamental and pervasive shift away from nature-based recreation. *Proc Natl Acad Sci*, 105, 2295-2300. <https://dx.doi.org/10.1073/pnas.0709893105>

Ramanathan, S., & Ramanathan, R. (2019, April 16). Many layers within India's middle class. *Hindustan Times*, New Delhi. <https://www.hindustantimes.com/india-news/many-layers-within-india-s-middle-class/story-18h8YO4jgMpeivUgdKyAkO.html>

Sekhar, N. U. (2003). Local people's attitudes towards conservation and wildlife tourism around Sariska Tiger Reserve, India. *Journal of Environmental Management*, 69(4), 339-347. <https://doi.org/10.1016/j.jenvman.2003.09.002>

Siddiqui, R., & Hamid, S. (2003). *Gender, poverty, and occupational choice in poor and non-poor households: An analysis based on the household survey data of Pakistan* [MIMAP Technical Paper Series (17)]. Pakistan Institute of Development Economics, Islamabad.

Spenceley, A. (2001). *Development of national responsible tourism guidelines and indicators for South Africa*. Report to the Department of Environmental Affairs and Tourism, and the Department for International Development, UK.

Sutton, C. N. & Jenkins, B. (2007). *The role the financial services sector in expanding economic opportunity*. [Corporate Social Responsibility Initiative Report (19)]. Kennedy School of Government, Harvard University.

Taylor, J. E. (2010). *Technical guidelines for evaluating the impacts of tourism using simulation models*. Impact-evaluation guidelines (229), Inter-American Development Bank, USA.

Todaro, M. P. & Smith, S. C. (2012). *Economic Development* (11th ed.). Pearson Education Limited, New Delhi.

Wells, M. P., & McShane, T. O. (2004). Integrating protected area management with local needs and aspirations. *Ambio*, 33(8), 513-519. <https://www.jstor.org/stable/4315540>