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Tourism Development and Local Community

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Abstract:

This research attempts to assess the attitudes of residents towards the perceived tourism impacts on their lives and communities in selected tourism coastal villages in Mauritius. A survey was used to examine residents' attitudes toward tourism development. The survey results show that tourism is a major pillar of the economy. Tourism has been a key contributor to economic growth and has led to increased job and investment opportunities, to the expansion of local amenities and infrastructural improvement. However, tourism is also generating inflationary pressures. The local community views on the social impact of tourism development in the region suggest positive social impact, except in the area of sports/leisure facilities. As such the respondents consider that the development of tourism has some negative impact on society. As far as local communities' views on the tourism development impact on the environment are concerned, residents' perceptions are negative. However, it is noted that the respondents are of the opinion that it is residents, not tourists, who are responsible for the degradation of the environment. Interestingly, the respondents admitted that tourism development has led to greater cleanliness of their localities. In contrast, tourism development is associated with crowded beaches and even, at times, restricted access to the beaches.

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1 INTRODUCTION

Tourism remains the world's largest industry. It is one of the fastest growing sectors, accounting for over one-third of the value of total worldwide services trade (WTO, 2006). Tourism worldwide has grown phenomenally, from 25 million arrivals in 1950 to more that 825 million in 2007(before the global economic crisis), with an average annual growth rate of 6.5 percent (WTO, 2007). World international tourist receipts amounted to more than 800 billion dollars in 2007, compared to 106.5 billion dollars in 1980 and 273.2 in 1990; this is equivalent to a 7% yearly rate of growth in current terms between 1980 and 2007. These figures represented more than 6% of overall international exports (goods and services) in 2007 (WTO, 2007).

Tourism is one of the main pillars of the Mauritian economy and the economy is highly dependent on tourist arrivals. The tourism industry has hardly shown any downfall in the number of visitors between 1970 and 2008. In 2009, due to the financial crisis, Mauritius experienced a downfall in the number of tourist coming to Mauritius; statistics show that tourist arrivals for 2009 decreased by 6.4% compared for 2008 (CSO, 2009). In spite of the dip, the tourism industry directly accounts for around 11% of the GDP and for around 6% of total employment in the island. Like many other developing countries, Mauritius is trying to expand its tourist industry by investing millions of rupees in the sector. Given the fact that tourism can only flourish where there is support by an area's residents, an understanding of attitudes and perceptions of residents toward tourism impacts and support for tourism development is crucial.

This understanding has led to a growing attention to the perceived impacts of tourism on local residents over the last two decades. Many studies have been carried out to understand the impacts of tourism development from a resident perspective (see Ap, 1992; Belisle & Hoy, 1980; Getz, 1993; Lankford, 1994; Lankford & Howard, 1994; Lindberg & Johnson, 1997; Liu & Var, 1986 among others). Among the positive impacts are, increases in income and the standard of living; the development of the local economy; increases in employment opportunities; and, the promotion of cultural exchange. Tourism is also argued to provide additional taxes and to enhance resources and public infrastructure. Some of the negative impacts of tourism, however, include the rising of the prices of goods and services as well as prices of houses and rents; noise pollution, crimes, the degradation of landscape and historic sites (Aki, Peristianis, & Warner, 1996; Caneday & Zeiger, 1991; Johnson, Snepenger, & Akis, 1994; Liu et al., 1986; Liu, Sheldon, & Var, 1987). There are real and perceived fears that are sometimes attributed to tourism but these largely related to poorly managed or mass tourism ventures. As with any economic activity, tourism can have negative impacts however which must be minimized and measured against the benefits that tourism brings.

This study attempts to understand the residents' attitude to the tourism sector and attitudes towards the perceived impacts (economic, social and environmental) of the sector. It seeks out residents' knowledge about tourism and their feelings about the sector. It also attempts to determine the existence of significant differences in perceptions and feelings across particular type of residents defined in terms of their demographics characteristics (e.g. age, gender, etc.) and the residents' attitude towards tourism. The main objective of the research is to assess the attitudes of residents towards the perceived tourism impacts on their lives and communities. It is hoped that this study will provide a better understanding of residents' attitude towards perceived tourism impacts on the coastal villages of the island, so as to address residents' concerns and help in the implementation of appropriate strategies for tourism development in the region.

To examine residents' attitudes toward tourism development, we follow previous studies and bring in the realities of the local context through a questionnaire-based survey which was administered to local residents. The questionnaire was divided into six sections. The first part consisted of questions gathering general information about tourism; the second part comprised of statements referring to the economic impacts of tourism; the third section is made up of socio-cultural impacts of tourism and the fourth part focuses on the environmental impacts. The fifth part comprised of two components to capture the benefits and costs of tourism as perceived by local residents. A last section was about the respondents' demographic details such as age, gender, level of education, etc. The survey was carried out personally by the authors with the help of research assistants and questionnaires were hand delivered to the respondents. Previous research has shown that this technique is more effective as respondents are more willing to answer when the interviewer ask them face to face as compared to mailed questionnaire or phone interview.

The sample for the study included residents of the major tourist coastal region of Mauritius. A stratified random sampling was used that divides the population into strata. This latter was to ensure that the sample would be representative of the population. The number of usable questionnaire was 300 out of a targeted sample size of 400 questionnaires administered to residents of 16 years of age or older living on the coastal region of Mauritius.

The rest of the paper is structured as follows. A review of the literature is presented in section 2. This section also examines the theoretical framework, looking at the different theories developed to assess residents' attitude towards tourism. An empirical review of past research work in this field is also contained in this section. This review looks at tourism impacts, mainly economic, social, cultural and environmental impacts to define a structure applicable to this study. Section 3 presents the methodology and the practical approach to the research is explained. The findings and results of the data analysis are then presented in this Section. Section 4 presents the implications of the findings of the study and concludes.

2 LITERATURE REVIEW

2.1 Theoretical Review

2.1.1 Benefits of tourism

Tourism is often seen as "the solution to economic hardship rather than a diversification of the local economy" (Ap, 1992: 5). It is easy for small communities to become reliant on tourism drawing labor away from staple industries such as agriculture and manufacturing. Besides, tourism also provides opportunities for regional development particularly for regional areas undergoing structural change. Being a labor intensive industry, tourism development can deliver employment and training opportunities particularly for young people. In addition, tourism also acts as an economic "shock absorber" helping to support communities, particularly in rural areas, through economic drought, as services are more recession-proof than goods.

The tourism industry is also "decentralized", meaning that there is little dependence on urban centers and imports to sustain tourism activity. Sustainable/ community based tourism relies on small, locally operated business, local feature and products and thrives on entrepreneurial activity from individuals. Especially in community owned/operated businesses the tourist dollar circulates adding to the multiplier effect to the local economy. Visitors inject money to the community by paying for products, services and experiences; largely food, accommodation, travel and entertainment. Furthermore, tourism is also seen as a service and experience based industry.

There has also been other contributive arguments (see Ap and Crompton, 1998 and Pizam, 1978) related to the socio-economic development of least developed countries, landlocked countries and island developing countries through foreign exchange earnings and the creation of job opportunities. These pertain to the fact that tourism is likely to stimulate the development of the transport infrastructure, which facilitates access to and from the least developed countries. Besides, it enhances internal and external trade and strengthens supply chain and promotes the integration of isolated economies with regional and global flows of trade and investment. Moreover, it reduces the burden on government budgets through implementation of public-private initiatives thereby creating decent and productive work for youth. Tourism also provides opportunities for bilateral, multilateral and sub regional cooperation among countries whereby information technologies play an important role in integrating tourism enterprises into global tourism markets. Furthermore, tourism can also generate financial resources for the conservation of the natural environment. It also raises awareness about environmental conservation and promotes waste management, recycling and biodiversity conservation.

Tourism stimulates economic growth both at the national and local levels and promotes the growth of the agricultural, industrial and service sectors. It also provides a wide range of employment opportunities accessible to the poor provided the right redistributive mechanisms are operated by government. Tourism businesses and tourists purchase goods and services directly from the poor or enterprises employing the poor (Blake et al., 2001). This creates opportunities for micro, small and medium-sized enterprises in which the poor can participate. International and domestic tourism spreads development to poor regions and remote rural areas of a country that may not have benefited from other types of economic development. The development of tourism infrastructure can benefit the livelihood of the poor through improvement in tourism-linked service sectors, including transport and communications, water supply, energy and health services.

2.1.2 Social impacts

Studying social impacts is a critical component of understanding how tourism affects destination communities. One of the first researchers to advance beyond a focus on economic impacts to examine the social impacts of tourism on destination communities was Butler (1974). Butler was one of the first researchers to view tourism as equilibrium between economic, social, and environmental impacts. The tourism impact model based on Butler is significant because it forms the essence of contemporary models used to demonstrate principles of sustainable tourism (Hunter, 2002).

Butler identifies a variety of social impacts on destination communities, both positive and negative. Some of the positive social impacts include improvements in social services, transportation, and recreation facilities, cross-cultural communication, improvement of the quality of life. However, there are also a number of negative social impacts which include competition for resources (both natural and built), price inflation (for goods and services, rent, and home ownership), and, demonstration effects (Tsartas, 1992), changes in community lifestyles and traditions, the loss of authenticity or staged authenticity, the transformation of material and non-material forms of local culture, which are called revitalization or commoditization (Mathieson and Wall, 1982).

2.1.3 Economic Impacts

Var et al. (1985) revealed that local residents perception towards economic impact were positive as the authors feel that tourism increases the standard of living of local residents, and helps a country earn foreign exchange. In fact, tourism can be considered as an export industry as it generates revenue from external sources. A country will acquire foreign currency from tourism and this will contribute to improve its balance of payment (Liu and Var, 1986). Tourism also brings about job opportunities, which decreases unemployment (Sheldon and Var, 1984). Tourism also leads to the development of community infrastructure and service (Var and Kim, 1990).

Tourism development results in higher levels of economic activities, it increases the amount of taxes generated and collected by governments. Growth of tourism has also been argued to lead to better communication and transportation facilities (Milman and Pizam, 1988) and new infrastructure investment (Inskeep, 1991).

However, if tourism is not well planned and managed, it might give rise to negative impacts or even decrease the efficacy of positive ones. Higher tourism activities and increased demand from foreigners might cause an increase in the prices of goods and services (Liu and Var, 1986). The rise in demand for accommodation, mainly in tourism season, might lead to higher rent being charged as well as an increase in land prices (Pizam, 1978; Var et al, 1985). Tourism also creates a sense of bitterness from local residents concerning the employment of foreigners in managerial positions. Nevertheless, some researchers, based on few case studies, still concluded that residents agreed that tourism's economic gains were greater than social costs (Liu & Var, 1986; Sheldon & Var, 1984; Weaver & Lawton, 2001).

2.1.4 Cultural Impacts

Tourism can cause a change in society's values, cultural practices and beliefs. Tourism has frequently been criticized for the disruption of traditional social and culture structures and behavioral patterns. The one to feel these impacts more heavily are local residents. They might change their lifestyle through contact with tourists. By observing the foreigners, they might adopt their way of life (such as eating, dressing, entertainment and so on). This influence might be considered as a positive impact if it increases the standard of living of local residents. However, it can be considered as a negative impact as it leads to acculturation (Brunt and Courtney 1999, Dogan 1989). Moreover, locations that have adopted tourism for its economic benefits have observed a rise in the level of crime, prostitution and displacement due to the rising land costs and loss of the cultural heritage of local residents, mainly youth.

Tourism can encourage to the realization of cultural identity and heritage as well as the revival of arts, local culture and crafts. In the process of tourism development, architectural and historical sites are refurbished and safeguarded (Inskeep 1991). Tourism also facilitates the exchange of cultures as many people from different cultures come together (Brayley et al., 1990).

2.1.5 Social Impacts

Apart from its cultural impacts, tourism also creates social impacts. It plays a role in changing individual behavior, family relations, lifestyle, moral conduct, social structure and so on (Ap and Crompton, 1998). These impacts may be either positive or negative.

Tourism alters the internal structure of the community by separating it into those who have a relationship with tourism or tourists and those who do not (Brunt and Courtney, 1999). Tourism development in a location might also modify the social

structure of the community. It could lead to the emergence of two different classes, that is, a rich class that consist of landlords and businessmen, and a lower class, which would include mostly immigrants (Dogan 1989).

Tourism is seen to positively impact on women as they have more opportunities to work, more freedom, increased respect, higher standard of living, better education. Yet, some researchers claim that tourism diverts family structure and values and it is a cause of the rise in divorce rates and prostitution (Haley et al. 2005). Other negative impacts that might result from tourism development are a decline in moral values, a rise in the use of drugs and alcohol, increase crime rates and conflicts in the society (Liu and Var, 1986; Milman and Pizam, 1988).

2.1.6 Environmental Impacts

Research on resident's perception of tourism impact on the environment suggested that residents might consider tourism as being positive or negative on the environment. Tourism helps to encourage preservation of the environment by creating awareness (Var and Kim, 1990). Residents also perceive that tourism improves the appearance of their town and surroundings (Perdue et al., 1987). In addition, fast growth of tourism might lead to the enhancement of government and local services such as fire, police and security (Milman and Pizam, 1988). Moreover, there might be an increase in the range of leisure and recreational activities in the community.

The negative impacts of tourism on the environments have been receiving significant attention recently. Improper planning, uncontrolled constructions and inadequate infrastructure cause environmental pollution, the destruction of natural resources and of vegetation and wildlife (Inskeep, 1991). However, if efforts and works to build recreation areas, to improve infrastructure system, to prevent water and air pollution and waste disposal and works to restore historic sites and buildings are well planned and managed, it will lead to positive contributions to the community. Residents must be aware of environmental and ecological issues, as tourists prefer an unpolluted environment (Liu and Var, 1986; Inskeep, 1991).

2.1.7 Residents' perceptions

A comprehension of resident's perceptions on tourism impacts is important. One of the main reasons for increasing interest in this topic has been the confirmation that tourism can both have positive and negative impacts on local residents (Lankford & Howard, 1994). Tourism benefits are both tangible (e.g. tax revenue, job creation, etc.) and intangible (e.g. social structure, quality of life, etc.). Tourism affects the economic structure as well as the social and environmental structure of a community. Attitudes of residents towards tourism impacts are most likely to be important in planning for successful community development (Ko & Stewart, 2002; Aref et al., 2009).

Researchers identified that residents' attitudes toward tourism are not just the reflections of residents' perception of tourism impacts, but effect of exchange between residents' perceptions and the factors influencing their attitudes (Lankford and Howard, 1994). Local residents' attitudes toward tourism have been widely examined in the literature. Three types of factors that influence attitudes toward tourism development - socioeconomic factors, spatial factors, and economic dependency have been put forward in the literature (Harill, 2004).

Tourism development has been usually identified as a double-edged sword for host communities. It does not generate only revenues, but it also inflicts costs (Inskeep, 2001). Local residents build up their attitudes toward tourism by taking into consideration and evaluating these benefits and costs. Nonetheless, previous research showed that these factors do not solely determine residents' attitudes towards tourism. They are altered by various moderating variables, such as level of education and religion among others (Lankford and Howard, 1994).

A number of theoretical approaches have been developed to explain the impact of tourism on residents. The initial models were the Doxey's Irridex model and the tourism area life cycle model (Butler, 1980). The first model suggests that communities pass through a sequence of reactions as the impacts of an evolving tourism industry in their area become more pronounced and their perceptions change with experience. It is argued that an initial euphoria is succeeded by apathy, irritation and, eventually, antagonism. Butler's (1980) tourist area life-cycle model on the other hand identifies a number of phases in the evolution of tourism at a destination (exploration, involvement, development, consolidation, stagnation and decline or rejuvenation). Subsequently the equity theory and social exchange theory were introduced in the literature to assess the impact of tourism. The social exchange theory views the exchange relationship between specific actors as "actions contingent on rewarding reactions from others." (Blau, 1964: 91) whereas the equity theory is a cognitive theory of motivation which claims that residents will be motivated if they believe they are fairly treated by the tourist.

Within the extensive number of academic studies related to tourism impacts and residents' attitude towards tourism, some models, have been developed to help explain tourism impacts and their relationship with residents' perceptions. While some of these models focus on the change in resident attitudes towards tourism over time (Butler, 1980; Dogan, 1989; Doxey, 1975), other have concentrated on the possible residents' strategies that compromise a continuum for responding to tourism impacts (Ap and Crompton, 1998).

2.2 Related Empirical Literature

Several studies have been previously carried out to find those variables that influence residents' attitudes toward tourism (Perdue et al. 1987, Ap 1992, Lankford 1994). These studies identified those variables, which included residents' demographic and socio-economic attributes. Changes in lifestyle of local residents directly influenced their perceptions of tourism development and its impacts (Esu, 2008).

Previous researchers have looked at the relationship between residents' attitudes and socio-economic variables such as gender, income and length of residence, though results from these studies are not always constant. McCool and Martin's (1994) and Harill (2004) found that long-term residents were more supportive of tourism development than short-term residents in the United States. On the other hand, Allen et al. (1993) found that length of residence did not considerably influence attitudes towards tourism development in 10 rural communities in Colorado. Other studies suggested that gender is a more regular predictor of residents' attitudes toward tourism development. Mason and Cheyne (2000) observed that men are more supportive of tourism development than women. This is mainly due to women perceiving negative impacts like increases in crime, traffic and noise strongly. Harill and Potts (2003) reported similar results in their study of Charleston

Many studies have explored the relationship between residents' attitudes and locations, and activities of tourism development. They focused on the hypothesis that "the nearer a resident reside to concentrations of tourism activity, the more negative his or her perception will be of tourism development" (Harill and Potts, 2003: 253)

A survey of attitudes toward tourism growth in Rhode Island by Tyrell and Spaulding (1984) found that local residents' attitudes toward the tourism facilities close to their home were not particularly positive because of litter and trash. Ap and Crompton (1998) found that residents who used a neighboring recreation area regularly were more firmly opposed to tourism development than those who visited areas which are less frequently visited. Harill and Potts (2003) further reported that nearby residents in a tourism center of Charleston were less supportive of tourism development than residents of other communities who live further away from the core as they received the influence of the negative impacts from tourism.

Resident perception towards the impacts of tourism on a community can vary considerably. Positive attitudes about tourism impacts among residents will bring about more successful tourism development. Tourism developers need to consider residents' attitudes and perceptions before investing in scarce financial resources (Cevirgen and Kesgin, 2007). It is argued that these perceptions give *a priori* tangible feelings of how residents will react to and support tourism development in their area.

Throughout the past 25 years, North American researchers have examined many different features related to residents' attitudes toward tourism impacts and perceptions of tourism development (Haley et al., 2005). Pizam (1978) suggested that negative host attitudes were emerging because of the heavy concentration of tourists in particular locations. Rothman (1978) emphasized negative resident perceptions towards the growth in crime, over-crowding, litter, noise and increase in prices, although studies also showed the perceptions to include some positive elements; these included higher employment opportunities (Milman and Pizam, 1988), enhancement of local infrastructures and a rise in leisure opportunities (Davis, Allen and Cosenza, 1988).

It is noteworthy that in a study on Social Impacts of Tourism on Central Florida, Milman and Pizam (1988) found out that local residents have positive attitudes towards tourists. Nonetheless, many of them talked about the negative impacts of tourism such as alcohol, crime, drugs, traffic congestion, and conflicts arising between local residents and tourists and so on. At the same time, they identified positive impacts like employment opportunities, increased quality of life and income generated from taxes. While researchers put more emphasis on the positive impacts of tourism at the beginning of mass tourism, the last three decades emphasized more on social, economic and environmental impacts with the emergence of sustainable tourism (Harill and Potts 2003).

Other important factors have been found to influence attitudes and perceptions. These are mainly personal and demographic factors. Tourism researchers also assessed the differences in perceived impacts among various types of local residents. These included socio-demographic characteristics (Belisle & Hoy, 1980; Liu & Var, 1986; Milman & Pizam, 1988; Pizam, 1978); economic dependence on tourism (Milman & Pizam, 1988; Pizam, 1978); and place of residence (Belisle & Holy, 1980; Sheldon & Var, 1984).

2.3 Determinants of Residents' Perceived Tourism Impacts

Most researchers have assumed that the perceptions of residents on tourism impact might differ with different types or experiences of local residents. However, some studies have looked at residents' attitudes through a demographic lens, although discrepancies emerged in the results, which have been identified in particular tourism research work (Allen et al., 1988; Ap, 1992; Milman & Pizam, 1988; Perdue et al., 1987). These inconsistencies may be the result of research sites and period specificities. They might even relate to differences in levels of tourism development. Despite these, tourism researchers have examined and noticed a number of determinants as reliably linking to tourism impacts.

There are studies which reported that several factors affect attitudes towards tourism and its impacts. They comprise of:

- o socio-demographic like age, gender, income, length of residency, education and ethnicity (Mason and Cheyne, 2000; Var et al., 1985; Weaver and Lawton, 2001);
- o closeness or remoteness of tourism attraction to residential areas (Harrill and Potts, 2003; Sheldon and Var, 1984; Weaver and Lawton, 2001)
- o economic dependence on the tourism industry (Lankford, 1994; Perdue et al., 1990; Liu and Var, 1986);
- o attitudes concerning environmental problems (Gursoy et al., 2002); and,
- o the form, scale and extent of tourism development (Mason and Cheyne, 2000).

2.4 Perceived Tourism Impacts

Throughout studies on tourism impacts, which appeared in the 1960s, much emphasis has been put on positive effects of tourism and economic growth as a form of national development (Pizam, 1978). In the 1970s, research on tourism impacts laid more emphasis on the negative socio-cultural impacts. The 1980s stressed more notably the environmental impacts of tourism (Butler 1980). The 1990s have been characterized by a more objective, yet debatable perspective, labeled sustainable tourism, where positive and negative effects are taken into consideration (Ap and Crompton, 1998).

Tourism development can be fostered when local residents have a positive attitude toward it and they feel involved in it. Tourism activity changes local residents' life, both positive and negative. On the one hand, there is job creation, regeneration of old facilities and places and improvement in social life. New business opportunities emerge with tourism development and local residents are encouraged to explore them. However, those residents also know that there will be the emergence of negative impacts such as cultural, social, economic and physical impacts as discussed previously. The relationship between local residents and tourists can is also problematical. Besides that, tourism development is directly restricted by carrying capacity and the limits to the quality of life of local residents. Going beyond these limits will cause local residents to develop negative attitudes toward tourism. If these negative attitudes, tourism development obstacles appear.

Mass tourism generally leads to modification in the physical and cultural environment which impact on local residents' values and lifestyle. Local community structure and family relations are also affected by these changes, as great effort is required by local residents to handle these alterations. Jamal and Getz (1995) stated that these changes compel local residents to be actively engaged in the tourism planning process and development of tourism destination. Indeed many in the field of tourism are persuaded that for tourism development to be successful, a good relationship between local residents and tourists is vital (Ap and Crompton 1998).

3 METHODOLOGY AND ANALYSIS

This section elaborates on the methodology adopted for the study, which uses a dual approach to address the research objectives. The primary data was collected from the residents of the coastal regions of Mauritius while the secondary data was obtained from the Central Statistical Office and the Ministry of Tourism and Leisure.

3.1 Data Collection and Sample

To examine residents' attitude towards tourism, a questionnaire has been designed, based on past literature to administer to local residents of major tourism locations. The questionnaire was developed based on the main variables (statements) developed by Gursoy et al. (2002) and Dyer et al. (2006). This includes 25 items to obtain the local residents' perceptions and attitude towards tourism impacts. These items include both the positive and negative side of economic, social and cultural dimensions.

Most of the questions were on a five-point Likert scale, using the anchor, '1' for strongly disagree to 5 for strongly agree. Participants' demographic characteristics include their age, gender, education level and place of living. The questionnaire was divided into six parts. The first part consisted of general questions for residents. The second part consisted of questions to assess residents' attitude towards economic impacts. The third part consisted of questions about the social/cultural impacts of tourism and the fourth part referred to statements about environmental impacts of tourism. The last part consisted of two questions about the benefits and costs of tourism perceived on a local basis by residents.

The survey was self administered by undergraduate students (who are on their final year of studies) to residents of the four coastal regions. Previous research have shown that this technique is more effective compared to mail survey as respondents are more willing to answer when the interviewer ask them face to face. The questionnaire was pilot tested among 15 persons, by drawing at least 2 persons from each strata. The questionnaire was designed in simple English and where the respondents had difficulty, the interviewer translated the statements into either French or Creole.

The sample for the study includes local residents of the major coastal tourism villages of Mauritius. It comprises of 400 residents spread along the main tourist coastal region¹ of the island. Furthermore, the group of people chosen in this survey consists of common people, students, hotel employees, restaurants and bungalows proprietors, taxi drivers as well as tour operators amongst others. The sample is a stratified random sample and to divide the population and select the appropriate sample, we used demographic statistics obtained from the Central Statistical Office of Mauritius. As the latest digest of demographic statistics is from December 2009, we used those figures. Only 300 questionnaires were collected.

¹ These include the public beaches in the Northern, Southern, Eastern and Western part of the country.

3.2 Data Analysis

The literature review on tourism development has repeatedly showed positive as well as negative effects. This information was captured by asking a number of questions on the economic, social and environmental impacts of tourism to the local community residing in the North, East and South region of the country. Prior to the analysis, summary statistics are given first on the respondents' profile.

The survey instrument contains a number of variables to test for significant differences based on the respondents' profile. The tables below provide summary statistics on the main variables of interest and information about the local resident in the coastal region of Mauritius.

3.2.1 Profile of Respondents

Age and Gender

The sample is spread among male and female respondents and they represent 60% and 40% respectively. The variable age is of nominal type and is mainly concentrated in the age bracket (19 – 30 to 41 – 50). Respondents above the age of 60 make 10% of the sample.

Education, Profession and Income level

The respondents include student, housewife, employed and unemployed and retired residents as displays in Table 1 below. The majority of the respondents are employed people and the students represent 16.7% of the sample. The housewife and retired represent 10% and 11% respectively. The unemployed were the least represented and is in itself an indicator of content validity. Most of the respondents earn a monthly income in the range of Rs 11,000 to Rs 20,000 and those earning below Rs 5,000 represent only 7% of the sample. It is to be noted that 36% of the respondents did not disclose their income level and they are the ones who earn above Rs 20,000.

Table 1: Respondents' Education, Profession and Income Level

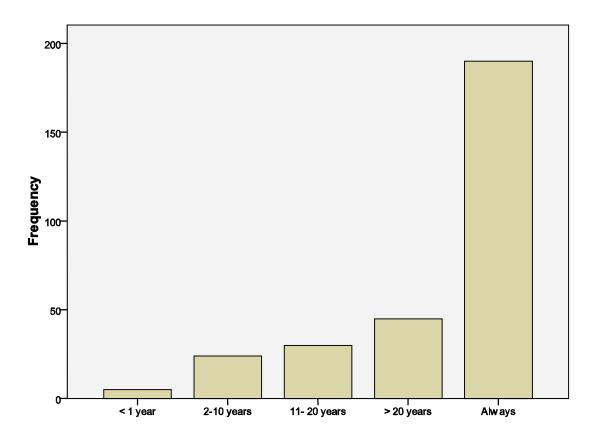
Education	Percent	Profession	Percent	Income Level	Percent
Primary	21.7	Student	16.7	< 5000	7.0
Secondary	36.0	Housewife	9.7	5000-10000	17.0
Vocational	16.0	Employed	53.0	11000-20000	29.3
Tertiary	25.3	Unemployed	8.3	> 20000	10.7
		Retired	11.3		
Total (n=300)	99.0		99.0		64.0

Indeed the income distribution conforms with that of the Central Statistical Office of the country. The income level which may be considered to have a link with the respondents' profession is expected to influence their responses. This is confirmed by a significant relationship (for a number of variables used to capture the different dimension) between the respondent income level and the rating of the economic, social and environmental impacts of tourism on the local community. The results are reported in Appendix I: Table A

3.2.2 Region and Length of Stay

The sample is overrepresented by respondents from the North and South, the two touristic regions where hotels are mushroomed. Both the Centre and East region represent only 2.4% of the sample and the West region makes up 15% of the sample. Figure 1 shows how the sample is spread in terms of the length of stay. Thus a cross tabulation (Appendix 1: Table B) between the variable length of stay and the economic, social and environment was performed and it confirms a significant relationship (Chi-square value =xx; Sig. level = %) between the length of stay and the respondent views on the economic impact of tourism in their localities. Respondents who have lived in the locality since birth and for more than 20 years tend to display a negative attitude to the development of tourism in the region, which is in line with previous studies. However, there is no statistical significance between the variable region and the impact of tourism.

Figure 1: Length of stay (Year)



3.2.3 Perception of Tourism Development

The study first attempts to capture the respondents' perception on the level of tourism development in their localities. The chart below (Figure 2) shows that that 43% of the sample rated it as developmental stage while 29% believe that it is still at its infancy stage of development. However, it would be important to know if such opinion is the same for the three main regions (North, West and South). The contingency Table 2 below reveals a significant difference in the respondents' perception based on their place of residence. Resident of North and East rated the tourism development as developed and highly developed while the local community residing in the South rated it as in its infancy stage (48% of this region). The level of education is also expected to influence the respondents' perception and this is confirmed by the statistical significance between the variable education and the level of tourism development. The respondents having studied up to the tertiary level are of the opinion that tourism has reached developed stage while the respondents of the three sub-samples (primary, secondary and vocational) viewed the development as being at its infancy stage (Appendix I: Table C).

Figure 2: Perceptions on level of tourism development in the community

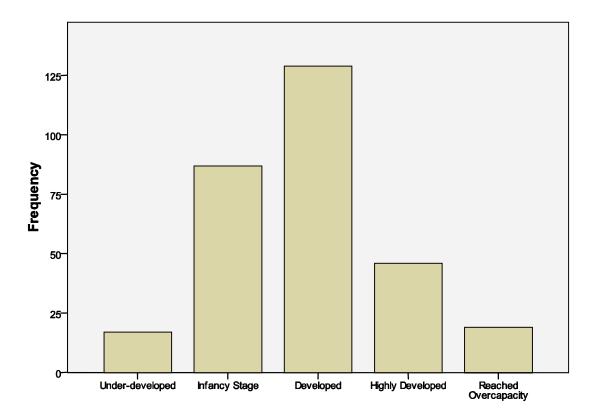


Table 2: Cross-tabulation (residency and perception): Tourism Development in your community? Where do you live?

	Where do you live?							
How do you perceive the level of tourism development in your community?		North	South	East	West	Centre	Total	
	Underdeveloped	% within Where do you live?	8.7%	5.0%	.0%	.0%	.0%	5.8%
	Infancy	% within Where do you live?	15.9%	48.0%	28.6%	32.6%	16.7%	29.6%
	Developed	% within Where do you live?	42.8%	40.0%	57.1%	41.9%	83.3%	42.9%
	Highly Developed	% within Where do you live?	23.2%	4.0%	14.3%	18.6%	.0%	15.3%
	Reached Overcapacity	% within Where do you live?	9.4%	3.0%	.0%	7.0%	.0%	6.5%
	N = 294	% within Where do you live?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	Phi value = .406	(0.000);	Cramer's value = .203 (0.000)					

3.2.4 Role of Government and Private Sector

The questionnaire also attempts to seek the views of the local resident on the role of the government and the private sector for the community to benefit from tourism development. Most of the respondents opine that the government does not play its role fully to ensure that the local community reaps the benefits of the tourism industry. This is displayed in Table 3 where 53% of the respondents disagree with the two statements (refer to Q). A similar observation is made regarding the level of investment to better protect the environment. 62% of the respondents are of the opinion that the government fails to invest in the protection of the local community environment.

Table 3: Positions on the Role of Government and of the Private Sector

tuble 3.1 ostilons on the Role of dovernment and of the 111vate sector						
	To Reap tourism*	benefit of	Investment to environment*	protect	the	
Position	Government	Private	Government	Private		
Strongly Disagree	14.3	22	23.0	18		
Disagree	38.7	35	38.0	42		
Neutral	23.3	24	21.7	23		
Agree	18.3	15	11.7	13		
Strongly Agree	5.3	4	4.7	4		
Total (N = 300)						

Note: *- Figures in percentage.

Equally the private sector has a responsibility towards the society to ensure that they benefit from the development of tourism. Hotels attempt to fulfill this role via the corporate social responsibility, which is now mandatory since the year 2009. However, the survey results demonstrate that the residents are of the opinion that the private sector is not doing enough for the development of the local communities.

3.2.5 Appreciation of Tourists and Respondents' Characteristics

The survey instrument also attempts to measure the respondents' appreciation of tourists in their region. It changes from them being indifferent, admire tourist, tourists are socially and economically beneficial and it is a source of disturbance to society. The frequency table reveals that the majority of the respondents view tourism development as socially and economically welcome for their regions. However, as expected the appreciation for tourists tend to differ on accounts of respondents level of education, profession and their place of residence. There is highly statistical difference (Appendix I: Table D) between the respondents' education and profession and the appreciation of tourists in their region. A weak significant difference is noted for the variable age and region (Appendix I: Table E).

Table 4: Appreciation of Tourists in the Region

Position	Frequency	Percent	Cumulative Percent
Indifferent	34	11.3	11.3
Admire Tourist	37	12.3	23.7
Tourist are socially and economically welcome	208	69.3	93.0
Tourist are a source of disturbance to society	21	7.0	100.0
Total	300	100.0	

Note: the question asked was "What is your appreciation of tourists in your region?"

3.2.6 Economic, Social and Environmental Impact of Tourism

The survey instrument contains a number of statements to capture the respondents' views on the economic, social and environmental impact of tourism on the local community. These statements are measured in 5 point likert scale with the anchored of 5 as strongly agree to 1 as strongly disagree. The mean score for each of the three dimensions reveals that the resident of the local community rated tourism development as being both positive and negative. Respondents tend to push the blame to the authorities and the private sector for problem areas.

Economic Impact

Tourism is a major pillar of the economy and has been a key contributor to economic growth. The contribution of tourism to economic development is best captured by looking at job opportunities, investment opportunities, local amenities and infrastructural improvement and inflationary pressures. These were captured using a number of statements measured on a 5 pt likert scale. The mean score for a number of the variables range from 2.65 to 4.50.

An R-mode Principal Component Analysis (PCA) was used to reduce the 21 variables into four components, namely job and investment, infrastructure improvement, additional facilities and inflationary pressures. The PCA removed the distorting effect that strong inter-correlations among the variables would have on the

calculation of the various 'distance' and 'variance' measures used in the grouping procedure. This technique was used in order to produce new combinations of the original data which could then be used as independent and orthogonal reference axes (or variables) in later analysis. All the assumptions of the PCA model were satisfied. The results were rotated, using the varimax rotation to isolate more meaningful dimensions. After varimax rotation four components were identified as showed in Table 5.

They accounted for 72.5 percent of total variance and with eigen values greater than 1. Two variables, namely tourism creates seasonal jobs and investment in boat operators/skippers had to be eliminated in the final model since they were not loaded adequately into the components they conceptually belong. Each variable had its highest loading on the component it conceptually belongs to and variables with side-loadings of .40 or less were suppressed. The final model was found to be an appropriate factor-analytic model as indicated by Barlett's Test of Sphericity, the Kaiser-Meyer-Olkin measure of sampling adequacy (.866), and the test for communality.

Table 5: Rotated Component Matrix of Respondents' Views on Economic Impact

	Component	Component				
View on Economic Impact	Job & Investment	Infrastructure Improvement	Additional Facilities	Inflationary Pressures		
Tourism creates seasonable jobs	.579					
Helped in empowering women economically	.745					
Tourism stimulates investment opportunities in: Handicraft/Artisanal businesses	.779		.425			
Restaurants/Catering	.805					
Hawkers	.811					
B n B (table d'hôte)/ Guest House	.780					
Small Planters/Fishermen	.722					
Entertainment (Cinemas, Shopping Malls)			.796			
Tourism provides additional facilities and services: Medical services (Clinics, Dispensaries)			.864			
Banking facilities			.878			
Shopping facilities (Malls etc)			.900			
Telecommunication facilities		.774				
Improvement in infrastructure:						
Road Network		.853				
Water Supply		.904				
Electricity Supply		.848				
Street Lighting Facilities		.866				
Real Estate prices increased significantly				.858		
Increase in food prices				.707		
% Variances	23.92	20.61	15.81	11.60		
EigenValues	2.631	2.267	1.739	1.276		
Cronbach Alpha	.883	.912	.931	.476		

 $\label{thm:principal component Analysis.} Extraction \ Method: Principal \ Component \ Analysis.$

Rotation Method: Varimax with Kaiser Normalization.

Percentage of Variance Explained: 72.5%

Taking into account selection of variables for the economic impact and the sign of their component loadings, the components appear to capture conveniently, and with some integrity, the overall economic impact of tourism on the local community. The internal consistency of the individual variable falling under one component was performed using the Cronbach's Alpha reliability test. All the components have a value of 0.8 and above except or the component inflationary pressures, thus confirming the validity of the factors. Object scores for the principal component extracted were saved to the data file to form new continuous study variables, namely Job and Investment (ECOINV), Infrastructure Improvement (ECOINFR), Additional Facilities (ECOADD and Inflationary Pressures (ECOINFL).

Social Impact

The survey instrument contains a number of statements to capture the local community views on the social impact of tourism development in the region. The mean scores for the positive social impact are above 3, except for the variable better sports/leisure facilities. Equally the respondents are of the opinion that the development of tourism has its negative impact on society.

Table 6: Rotated Component Matrix of Respondents' Views on Social Impact

	Componen	Component			
View on Social Impact	Societal Problem	Beneficial	Friendly Attitude		
Tourism enable local residents to:					
Display a friendly attitude (Towards foreigners)			.904		
Display a friendly attitude (Towards local residents)			.858		
Positive social impact: Tourism has lead to better cultural and social understanding		.798			
The community benefits from tourism		.721			
Local residents learn more and newer languages	İ	.766			
Without tourists, their localities would be socially backward		.525			
Negative Social Impacts: Tourism has damaged moral values	.839				
Increase in crime rates/delinquency	.854				
Increase in prostitution and sexually transmitted disease	.857				
Exists some sort of differences between you and tourist	.626				
% Variances	27.15	22.33	17.13		
EigenValues	3.148	2.136	1.377		
Cronbach Alpha	.823	.565	.779		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Percentage of variance explained: 67

Barlett's Test of Sphericity: 1109.23 (0.000)

Kaiser-Meyer-Oklin Measure of Sampling adequacy = .712

Similarly as for the economic impact, the number of statements used to capture the social impact of tourism was reduced using the PCA. The final solution identifies three components namely societal problem, friendly attitude and beneficial. The different statistics displayed below the table confirms the validity of the model.

Environmental Impact

Environment is becoming a major issue for any economic development and over the past years government has showed its concern that any major project must be in line with the government policy for a sustainable economic development – "Maurice Ile durable".

Along this line, the questionnaire contains a number of statements (measured on a 5pt likert scale with anchored 5 for strongly agree and 1 for strongly disagree) to obtain the local communities' views on the tourism development. The mean score ranges from 2.60 to 3.99, which indicates that the residents generally view tourism development with a negative mind. However, it is noted that the respondents are of the opinion that it is the residents and not tourists that are responsible for the degradation of the environment. Interestingly the respondents admit that tourism development has led to greater cleanliness of their localities, with a mean score of 3.69. On a different note, the local community is of the opinion that tourism development leads to crowded beaches and even at times there is restricted access.

The PCA, a data reduction technique is used to group the number of variables that connote the same environmental impact, whether positive or negative. The final solution includes only 8 out of the initial 9 statements. It is confirmed that there is a distinct pattern to the negative impact of tourism on the environment and suggests that the authorities need to educate the local community about the positive effect of tourism on our small island.

The consistency of the items falling under each component was verified using the Cronbach's Alpha reliability test and the values obtained confirmed same. Initial statistics (showed below the table) suggested that the variables would factor well. The varimax rotated factor loadings show variables clustering as predicted. They were labeled as Negative impact and Positive impact. The Negative Impact accounts for 55.45% of the cumulative variance and measures the extent of tourism development on the environment. Variables which loaded heavily onto this factor include overcapacity, crowded beaches and noise and other forms of beaches. However, it would be of interest to see whether there is a significant difference as regards the environmental issues and the respondents' place of residence.

Table 7: Rotated Component Matrix of Respondents' Views on Environment Impact

	Component	
Environmental Impact of Tourism	Negative	Positive
Increased in number of tourists arrival has led to congestion.	.879	
Tourism leads to noise and other forms of pollution	.884	
The number of tourists in our localities is above its capacity	.902	
The beach is crowded with tourists	.919	
Restricted access to beaches for residents	.851	
Solid waste are not disposed properly by hotels	.693	
Tourism has lead to greater cleanliness of our region		.818
Government planning regarding the environment is adequate		.801
% Variance Explained	55.57	16.82
Eigenvalues	4.446	1.345
Cronbach Alpha	.927	.495

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.

Percentage of variance explained: 73 Barlett's Test of Sphericity: 1560.11 (.000)

Kaiser-Meyer-Oklin Measure of Sampling adequacy = .845

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

This research presents an assessment of the attitudes of residents towards the perceived tourism impacts on their lives and communities in selected tourism coastal villages in Mauritius. To examine residents' attitudes toward tourism development, we follow previous studies and bring in the realities of the local context through a questionnaire survey which was administered to local residents. The sample for the study included residents of the major tourist coastal region of Mauritius and consist of 400 residents of 16 years of age or older, living on the coastal region of Mauritius.

Results from the survey analysis show that tourism is perceived as a major pillar of the regions under study, as a key contributor to local economic growth. It is also further perceived that local tourism may lead to increased job and investment opportunities, better local amenities and infrastructural improvement, but also to inflationary pressures. These were captured using a number of statements measured on a 5 pt likert scale. The mean score for a number of the variables range from 2.65 to 4.50. The survey instrument also investigated the local community views on the social impact of tourism development in the various regions studied The mean scores for the positive social impact are above 3, except for the variable better sports/leisure facilities. As such the respondents are of the opinion that the development of tourism has had negative impact on society. As far as local communities' views on the tourism development impact on the environment are

concerned, the mean score ranges from 2.60 to 3.99, which indicates that the residents generally view tourism development as having had negative environmental effects. However, the respondents are of the opinion that it is the residents and not tourists that are responsible for the degradation of the environment. Interestingly the respondents admit that tourism development has led to greater cleanliness of their localities. It is noteworthy that the local community is of the opinion that tourism development leads to crowded beaches and even at times there is restricted access.

4.2 POLICY RECOMMENDATIONS

Broad policy implications encompass the fact that government should adopt an integrated approach. This would imply involving all stakeholders as well the local community and other the interest groups. The government through the relevant Ministry - needs to ensure that rural communities, local people, voluntary tourism associations and the informal sector are represented on Government or parastatal organisations, committees and working groups which are involved in tourism development planning and also drafting of regulations and legislation (e.g. the Mauritian Tourism Authority or other permanent or *ad hoc* committees and workshops organised by the Ministry to address tourism issues etc.)

Moreover government need to ensure that rural communities, local people and the informal sector have greater access to the benefits from tourism on their land, by creating appropriate legal mechanisms and establishing appropriate incentives. As such, the authorities should facilitate contacts between the informal sector, formal sector, banking sector, government, and voluntary and donor organizations; the latter is to ensure the provision of investment incentives, soft loans, and technical advice to informal sector tourism. This is specifically in designing investment incentives and in facilitating soft loans for tourism development (e.g. from banks or donors).

As for tourism suppliers (resorts, hotels, local tour operators among other), these can help by maximising local labour employment and, through management and training interventions, by investing in people and also ensuring, to the greatest extent possible that increasingly senior posts go to local employees. Moreover, these institutions can further work with local communities and micro-enterprises to ensure that food and beverages, soft furnishings, maintenance, arts and crafts and entertainment are locally sourced. Government could also assist by promoting the proactive marketing and promotion of enterprises run by communities or local individuals (e.g. in material for those seeking socially and environmentally responsible tourism) as a lack of marketing skills is one of their major constraints.

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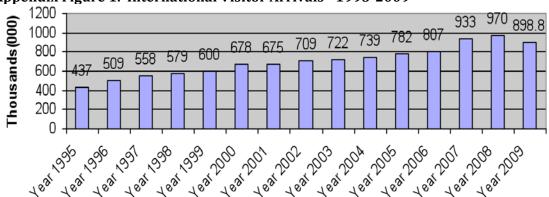
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5 Appendices

5.1 Overview of the Tourism industry in Mauritius

Tourism, the third pillar of the Mauritian economy after the Export Processing Zone manufacturing sector and agriculture, contributes significantly to economic growth and has been a key factor in the overall development of Mauritius. In the past two decades tourist arrivals increased at an average annual rate of 9% with a corresponding increase of about 21% in tourism receipts. In 2000, gross tourism receipts were 14.2 billion rupees (508.3 million US \$) and contributed to about 11% of our GDP in 2009. Tourism may be called to play an even more important role in the wake of the latest WTO trade Agreements.

In 2010, for the first quarter, tourist arrivals were 249 971. Tourist arrivals for the first quarter of 2010 increased by 7.3% to reach 249,971 compared to 232,908 in the corresponding quarter of 2009. Appendix Figure 1 illustrates the tourist arrivals trend between 1995 and 2009.



Appendix Figure 1. International Visitor Arrivals - 1995-2009

Source: World Travel and Tourism Council (WTO,2010)

Tourist arrivals have been expanding consistently, rising from 437 000 in 1995 to 898 800 in 2009. It can be seen that the number of tourists has increased over the years although between 2000 and 2001, tourist arrivals were fairly stable following the terrorism attack of 11th September, which made tourists unwilling to travel abroad. It can also be observed that between 2002 and 2008, the number of arrivals increased. In 2009, due to the financial crisis, a decline in the number of visitors compared to 2008 occurred. Nevertheless, this crisis did not impact on the Mauritian economy to a level that is comparable to other countries around the world.

5.2 Tourist Receipts

Appendix Figure 1 shows that in 2007, tourism receipts amounted to Rs 40 687 million, showing an increase of (+ 21.5 %) over the year 2006. This increased again in 2008 (+1.2 %) until a decline in 2009 - tourism receipts then stood at Rs 35 693 million compared to Rs 41 213 million in 2008 (a 15.5 % decline). Data from the Bank of Mauritius indicate that gross tourism receipts for the first quarter of 2010 were Rs 11 021 million, i.e. an increase of 7.4% compared to Rs 10 265 million for the same period in 2009.

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Appendix Figure 2. Tourist receipts (Rs million, 1995 - 2009)

Source: CSO (2010).

5.3 Travel and Tourism Employment

Appendix Table 1. Travel and Tourism Employment as from the year 1995 to 2009

Travel & Tourism

Year	Employment(000)
1995	48.7
1996	50.6
1997	50
1998	55.8
1999	55.1
2000	57.5
2001	64.5
2002	63
2003	63.1
2004	70.4
2005	74
2006	73.1
2007	86.4
2008	80.6
2009	72.7

Source: WTO (2010).

From Appendix Table 1, it can be seen that over the years, Mauritius has experienced a constant rise in employment in tourism sector. According to WTTC, from 48 700 in 1995, it rose to 72 700 in 2009 and it is expected to continue to

increase with the increase of tourist arrivals. In fact, according to a survey of Employment and earnings, direct employment in hotels, restaurants and travel and tourism establishments employing 10 persons or more stood at 26,922 at the end of March 2009, 76.3% of which were engaged in hotels. Appendix Table 2 below shows the employment in the tourist industry between the end of March 2005 and the end of March 2009.

Appendix Table 2. Employment in the tourist industry as at end of March 2005-2009

Year	2005	2006	2007	2008	2009
Establishments					
Restaurants	1809	1805	2012	2251	2309
Hotels	19326	19536	20233	22314	30531
Travel and Tourism	4342	4457	4296	4188	4082
Total	25377	25798	26541	28753	262922

Source: Survey of Employment and Earnings in large establishments (i.e. employing 10 or more persons), CSO (2010).

From the table above, it can be seen that employment resulted from the tourism sector in 2006 was 25 798, an increase of 1.6 % compared to the 2005 figure. In 2008, 28 753 employment were created, a 7.7 % increase over 2009. Similarly, in 2009, employment level rose to 262 922, due to a massive increase of jobs in the hotel sector. With the increasing number of hotels in the different region of Mauritius, there is no doubt that tourism has increases job opportunities for the local residents.