

CHAPTER V

DISCUSSION AND CONCLUSION

Discussion

Protection of plants, animals and land, and management of waste due to tourism activities were the main objectives of all the protected areas chosen for study; however, their focus differed from one another. Wet Tropics World Heritage Area (WTWHA): the focus was more on prevention of damage to the landscape and plants. The major activities of tourism were walking, hiking, mountain bike riding, and horse riding, off-road driving, picnicking, camping, swimming, rafting and kayaking. Kuscenneti National Park: The focus was on the protection of bird. The bird watching was the main activities there. Sagarmatha National Park: The focus was more on afforestation of the area and waste management. Mountaineering was a major tourism activity. Nanda Devi & Valley of Flowers National Parks: The focus was more on conservation of plants and animals. Mountaineering, trekking and pilgrimage were some of the main tourism activities.

The management issue in Wet Tropics World Heritage Area was pertaining to preservation of vegetation and protection of landscape from erosion. In Kuscenneti National Park, the emphasis of management is to protect and preserve birds. In Sagarmatha National Park, apart from the protection of vegetation, the major issue was waste disposal. The 4th case study of Nanda Devi & the Valley of Flowers National Park had issues of protection of plants, animals, land, and waste disposal.

The finding of the research revealed that most common issues of all the sites were waste management and management pertaining to protection of natural resources, especially land, plants and animals.

With regard to waste disposal, the finding of this research supports the finding of Sunlu (2003). Both the results proved that the waste disposal is a serious problem in the protected area. However, as compared to the case study sites, the waste disposal is not seen problematic in Phobjikha Valley (Wangmo, 2010), as the tourist arrival is not significant now; however, the trend is a gradual increase every year. This

result is also supported by Dorji (2001) and Neto (2003), who strongly suggested that the activities of tourism generate more waste and damages the environment in the protected area. Furthermore, the findings of the research have the similar result as that of Dorji (2001) with regard to the litter and waste during the trek.

The major management issues of protection of land and vegetation was observed in all the sites except at Kuscenneti National Park (KNP). In KSP most of the touristic activities were done outside the park. In contrast, the Phobjikha valley has hotels located in the conservation area. As stated by Leiper (2004), the research sites were faced with the problem of loss of vegetation, damage to delicate ecosystem and other physical environment through tourism development activities. Pickering, Bear, and Hill, (2007) and Gunn (1979) supported the research finding with regard to damage to natural vegetation due to development of infrastructure. Similarly, the developmental activities, especially hotel construction and operation to benefit from tourism activities, have negative impact to land and vegetation in the Phobjikha valley. As suggested by Dorji (2001) and Pickering, Harrington and Worboys (2003), the research sites are also faced with the difficulty of protection of land and vegetation due to cutting down of trees and use of animals. The finding also supports Dorji (2001) on disposal of waste and litter on trails during the tourism activities damaging land and vegetation.

The issue of protection of birds and animals as revealed by the finding has been supported by many literatures. As pointed out by Pickering, Harrington & Worboys (2003) and Beech and Chadwick (2006) the finding of the research revealed the impact of tourism activities to fauna and flora. With regard to fauna, the research finding doesn't support the idea of Pickering, Harrington and Worboys (2003) on the adverse effect of native fauna due to penetration of feral animals. However, the research finding supports the finding of the author on uses of animal and grazing, which has negative impact to flora and simultaneously to fauna. The research result also supports Beech and Chadwick (2006) on the impact of tourism to the wildlife due to hunting of wild species by the tourist.

In all the case study sites, the collaboration of stakeholders and involvement of local community were seen as the driving force to combat the negative impact of tourism. As stated by Zal and Brenda (2010), the result showed a strong collaboration

among tourism industry, managing agencies and local community. However, the involvement of local community was not strongly encouraged in the Phobjikha Valley.

The major sustainable strategies to combat the problem of negative impact of tourism to land and vegetation as revealed by the case study sites were: management of trail, involvement of local community, afforestation, monitoring, research, education to local community, zoning for tourism activities, responsible tourism and collaboration among stakeholders. This result supports the suggestion made by Catibog-Sinha and Wen, (2008) for a sustainable tourism practice in the protected area.

The key management strategies applied by the case study sites to mitigate the negative impact of tourism to birds and animals were: use of technology, involvement of local community, monitoring, education and regulation. The finding of the research supported to the importance of technology, as stated by Buhalis (2003), in tourism sector. Seddon and Khoja (2003) and Catibog-Sinha and Wen (2008) supported to the results of research on regulation of tourism activities in the protected areas.

The management strategies to combat the problem of waste due to tourism in all the case study sites were: zoning, involvement of local community, waste removal and planned and regulated tourism practice. The results drawn from the research are in line with the suggestion made by various writers respectively. The zoning has been suggested by Beech and Chadwick (2006); Involvement of Local community is suggested by Hiwasaki (2006), Seddon and Khoja (2003), Yip, et al. (2006) and Zal and Brenda (2010). In case of waste removal, Brown, Ham, and Hughes (2010) suggested on visitors education for putting the waste in the garbage or picking up of the litter voluntarily; similarly the finding of this research suggested on responsible tourism. Beech and Chadwick (2006) suggested environmental education for the stakeholders.

As suggested by Gunn (1979), Jamal and Stronza (2009) and Hiwasaki (2006), the research revealed a strong collaboration and coordination among stakeholders for developing an effective approach for sustainable tourism. However, in contrast to the suggestion made by (Jamal and Stronza, 2009) with regard to international partnership, the result of the study didn't reveal so. Sagarmatha National Park had such arrangement in the past, but no more now. Furthermore, the emphasis

made by Beech and Chadwick (2006) on the pollution of water, aesthetic and air, was not revealed by the results of the case study sites. However, pollution of noise as suggested by the author was managed by the Phobjikha Valley. The research found that the visitors were prohibited to go near the cranes to avoid disturbance due to noise (Wangmo, 2010).

Since tourist is one of the important elements of whole tourism system (Leiper, 2004), it is of paramount importance to make tourist happy through the activities in the protected area (Catibog-Sinha and Wen, 2008). However, it is also the responsibility of the tourists through their behavior to support conservation of environment. Furthermore, the entire stakeholders, industry and the local community are responsible to take initiative for protection and conservation of environment (Beech and Chadwick, 2006).

Therefore, it is imperative to unite and work together (Gunn, 1979; Jamal and Stronza, 2009; Hiwasaki, 2006; Zal and Brenda, 2010; Yip, et al., 2006) for developing a plan and policy (Seddon and Khoja, 2003) and (Sharpley, 2008) pertaining to environment management. Furthermore, research (Catibog-Sinha and Wen, 2008), evaluation (Beech and Chadwick, 2006) and monitoring (Catibog-Sinha and Wen, 2008) are revealed as important strategies for achieving the objective of sustainability (Seddon and Khoja, 2003).

Since tourism has a positive impact to environment through financial support, profitability is equally important for sustainable tourism. Hence, it is essential to balance between the protection of environment and tourism business (Novelli and Scarth, 2007) and (Beech and Chadwick, 2006). Finally, the four important management factors such as finance (Sunlu, 2003) human resource (Marion and Reid, 2007) and (Catibog-Sinha and Wen, 2008), technology (Buhalis, 2003) and Marketing (Jarvis, Weeden and Simcock, 2010) as learned from this paper are the crucial pillars to support achieving the objective of sustainability.

From the above discussion, the management model as shown in Table 11 is drawn for the Phobjikha Valley for sustainable tourism management practice

Table 11 Sustainable Tourism Management Model

T	Tourist (Leiper, 2004; Catibog-Sinha and Wen, 2008)	Make tourist happy by providing them an attractive place to experience and at the same time entrusting them with the responsibility to support conservation of environment through their behavior.
O	Obligation (Beech and Chadwick, 2006)	It is the responsibility, commitment and duty of all the stakeholders (Tour operators, Hotelier, Guides, Horse owner and others) to protect and preserve natural environment in the protected area.
U	Unity (Gunn, 1979; Jamal and Stronza, 2009; Hiwasaki, 2006; Zal and Brenda, 2010; Yip, et al., 2006)	Coordination and collaboration between all the stakeholders (Tour operators, Hotelier, Guides, Horse owner and others), industry, local community, government and conservation group are crucial for protection and preservation of nature in the protected area.
R	Regulation (Seddon and Khoja, 2003; Catibog-Sinha and Wen, 2008)	Proper planning, regulation, enforcement and implementation of plans and laws are required with regard to protection of nature in the protected area.
I	Investigation (Beech and Chadwick, 2006; Catibog-Sinha and Wen, 2008)	Research needs to be done to find the weaker areas for improvement. Evaluation is an important process to know if the plan is successful or not. Monitoring is a very important element to check if the regulation, plans and policies are followed or not.
S	Sustainability (Novelli and Scarth, 2007; Beech and Chadwick, 2006)	It is necessary to balance between the preservation of environment and profitability due to tourism business for sustainability
M	Management (Marion and Reid, 2007; Plumber and Fennell, 2009; Leiper, 2004; Buhalis, 2003; Jarvis, Weeden and Simcock, 2010)	For all the above activities to happen, it is imperative to have a good management system in terms of Finance, Human Resource, Technology and Marketing.

Conclusion

The research was carried out to find the strategies to mitigate the negative impact of tourism to environment and to create a model of sustainable management practice for Phobjikha valley in Bhutan. The case study method was used for the research. In the process, the positive and negative impact of tourism to environment was reviewed. Then the sustainable management practices applied by the case study sites to minimize the problem of negative impact of tourism to the protected areas were studied. Finally a model for sustainable tourism management was framed based on the findings of the research.

The positive impacts of tourism to environment were financial contribution, environmental awareness and environmental management. The major negative impacts of tourism to environment revealed by the study were damage to plant, animal and land, and waste disposal. To mitigate the problem, the collaboration between different stakeholders, involvement of the local community, regulation, monitoring, education and training were suggested by the study.

After an extensive discussion on the issues pertaining to management of protected areas for preservation of environment for sustainable tourism, the management model for Phobjikha Valley was drawn for sustainable tourism practice. Since tourist is an important element in tourism, it is crucial to make the visitors/tourists happy by offering them different activities in the attractive natural environment to experience and at the same time giving them the responsibility to support protection of environment. However, it is the responsibility of all the stakeholders, industry and the local community to take initiative for protection of this environment. Therefore, the collaboration and coordination of this entire group is sought for formulation and implementation of plans and policies. Nevertheless, the planning is incomplete without research and evaluation. In addition to this, the monitoring activity is a must for achieving the goal of sustainable tourism management. Furthermore, it has been found that business of tourism generates income for the local community from the activities in the protected area. It is also clear that the activities of tourism have negative impact to the environment. Hence, there is a call for sustainable tourism to balance between the profitability of income and protection of environment. However, the four strategies of financial, human resource,

technological and marketing management are the driving force to achieve the goal of sustainability.

With the above idea, the model of sustainable tourism was drawn as TOURISM; T for Tourist (Tourist's Experience & Behavior), O for Obligation (Responsibility, Duty and Commitment of all the stakeholders), U for Unity (Collaboration, Coordination and Cooperation of all the stakeholders, local community, government, industry and conservation group) R for Regulation (Planning, Enforcement and Implementation), I for Investigation (Research, Evaluation and Monitoring), S for Sustainability (Balance between Profit from Tourism Business and Protection of Environment) and M for Management (Financial, Human, Technology and Marketing)

Recommendations

The result of the research revealed that the major negative impact of tourism was to land, plants and animals. Furthermore, the problem of waste disposal, which has significant negative impact to the environment, was also revealed by the paper. Therefore, the study recommends applying the sustainable management practice using the model of TOURISM, as developed in this research. However, this research in particular would like to encourage the below stakeholders to initiate for protection of environment and would like to suggest the following:

1. Tourist: To handle the environment with care. The visitors are the people who use the natural resources for touristic activities. Hence, it is their responsibility to use the natural resources with due care.

2. Local Community and other stakeholders: To support sustainable tourism practice for long term benefit to the community. Since local community and managing agencies are involved in the tourism business; it is through their commitment and initiative that the objective of sustainable tourism could be achieved.

3. Government: The support of the government in regulating the plans and policies is a powerful force for management of sustainable tourism. Regulation such as, low impact and high value tourism practice, as applied by Bhutan, need to be continued.

4. Protected Area Management: The protected area management, which is the guardian of the protected area, should play a key role for sustainable tourism management.

Future Research

Since this research is done based on the case studies, the future research is suggested by seeking information directly from the focused area. Furthermore, this research is limited to a small area of Phobjikha valley only; hence, the future research is recommended for larger coverage. The model developed by the research could also be tested in other protected areas for sustainable tourism. The research on other aspect of tourism such as, impact to the community could be carried out as impact of tourism to environment has a close relationship with impact to local community. Finally, appropriate action plans for each element of the model could be identified through future research.