CHAPTER V

SUMMARY OF FINDINGS, SUGGESTED STRATEGIC ACTIONS AND CONCLUSION
The summary of findings is an outcome of analysis and interpretation of the primary and secondary data. Every research, whether it is social or pure science research, aims to produce desired outputs for the theories to be refined and strengthened and the society to be largely benefited. There are instances where efforts for inventing new things went in vain, but many noted social scientists and scientists have become successful in findings the results. It certainly requires methodical, scientific and logical approaches with creative thoughts and minds to identify the need for undertaking research; diagnose the roots of problems; and prescribe the remedies to overcome the problems. As such, many social, cultural, economical, ecological and environmental issues have become so chronic in the present time that both qualitative and quantitative research works are largely needed for finding the ways and means for handling these issues for the greater benefits of society. Tourism is a social science subject and the issues of tourism are the issues of society and vice-versa. It has become a growing socio-economic phenomenon in the 21st century and many burning issues are linked to the unplanned, unregulated and unsustainable ways of tourism development. However, many on-going issues deep-rooted in the tourism development are closely associated with the visitor satisfaction and community empowerment. The former is an important means of generating revenue and the latter is the means of providing social and economic freedom through the development of tourism in the local areas.

After having clearly comprehended the fundamental elements of issues affecting the visitor satisfaction and community empowerment, the present study has left no stone unturned in using many possible scientific methods of analyzing the problems preventing the sustainable ecotourism in the PTR. Thus, the study has critically discussed and
debated to find the trends of tourist arrivals, revenue earnings, the quality and quantitative improvement in infrastructure, the quality of services, the role of Periyar Foundation & EDC, the conflicts between man and animals, the issues affecting visitor satisfaction and community empowerment, etc. After analyzing the secondary data, the study has been enriched with the findings of primary data collected from both Tourists and Local Community Members in the vicinity of PTR.

The study has also discussed the need for strategic actions to deal with the current issues so as to make the PTR a sustainable ecotourism destination for ensuring balanced development at the destination area. Even though the opinions of other stakeholders and many other variables are essentially important to further enrich the research, but the scope of the study has been confined to analyze the opinions of Tourists and Community members along with three important theoretical constructs such as visitor satisfaction, community empowerment, and sustainable ecotourism. Both the stakeholders are interdependent and complementary to each other for their mutual benefits. While making the analysis of primary and secondary data, the study has stumbled upon some major findings that have broadly clarified many research questions and issues. Finally, many genuine and feasible strategic actions are recommended for the implementation for the benefits of policymakers, planners, researchers, etc. A model has been evolved from the outcomes of the research findings and suggestions so as to enable the administration of the PTR in particular and any other ecotourism sites in the protected areas in general to implement for sustainable ecotourism.
5.1. FINDINGS FROM SECONDARY DATA ANALYSIS

5.1.1. Insignificant Increase in Wildlife Population

Apart from the tiger population, there has been an increase in the distribution of wildlife population in the PTR. However, the tiger population has been under the grave threat since only 21 tigers were reported in 2002. However, the tiger census conducted during 2002, 2006 and 2008 by the DFW, the WII and the TRM revealed the marginal increase in tiger population. Thus, the trivial rise in tiger population is not so satisfying, encouraging and striking given the cost, time and manpower employed for the preservation of tiger habitats in ecosystem. The Periyar is one of the project tigers created way back 1973 with the objective of conserving the tiger as a key predator, thereby increasing the wildlife diversities. It is found that tiger population is not increasing so impressively as compared to the increase in diversities of other wildlife population. It may be interpreted that jungle scout as a CBEP or the boating activity in the dam or other tourism activities in the day time seem to have disturbed the movement of tigers in the forest and it must be affecting negatively the tiger habitations.

5.1.2. Tourist Arrivals in Kerala

Tourism has been an integral part of the socio-economic development in Thekkady and wildlife tourism in particular is a key attraction for which hundred thousands of domestic and foreign tourists and day visitors arrive at Thekkady. The Park Administration has laid emphasis on the responsible and community-based ecotourism whereby local tribal and semi tribal population can get direct and indirect benefits from the tourist expenditures. It is reported that there has been a variation of percentage growth
of domestic and foreign tourist arrivals between 2001 and 2011. It is heartening to find that it is a 3.45-times increase in FTAs during the period.

The FTAs is reported to be almost 2.5-times more during the same period. Even though domestic tourists have outnumbered foreign tourists, the growth of DTAs is not so remarkable as compared to the growth of the FTAs during the whole period. Nevertheless, the total tourist arrivals have registered a growth of 83.99 per cent between 2001 and 2011. Kerala has been a long-haul destination for foreign tourists for wellness and nature-based tourism activities. Finally, instead of being impressed with the growth of FTAs, the state has lagged behind in terms of attracting foreign tourists while compared to our neighboring tiny island nations like Sri Lanka and Maldives.

As far as the tourist arrivals in the Idukki district is concerned, the growth of FTAs between 2001 and 2006 is found to be about 80.75 per cent as against a decline of -136.55 per cent between 2006 and 2011. However, the growth during the entire 11 years (from 2001 to 2011) is reported to be 99.46 per cent.

The annual total tourist arrivals, including the FTAs and DTAs to the Idukki district from 2001 to 2011 substantially signify the ecotourism and wildlife tourism potentials of the PTR as it is one of the finest attractions of the district. In addition, the growth of DTAs is about 46.01 per cent from 2001 to 2006 as against a marginal decrease of -1.57 per cent from 2006 to 2001. The total tourist arrivals to Idukki district indicate a growth of 53.16 per cent from 2001 to 2006 and a decline of -13.90 per cent from 2006 to 2011. It is, however, reported that there was a decline in the tourist arrivals.
in Idukki district due to the boat mishap in 2009 and the global economic recession. Nevertheless, the cause for the decline seems to be the lack of facilities and amenities.

The PTR is generally known for attracting a large number of day visitors for boat ride in the dam. It is reported that the growth of domestic and foreign day visitors is almost the same trend. However, there has been a fluctuation in the total day visitor arrivals at the PTR. There is an increase of total day visitors from 425.22 thousands in 2005 to 480.40 thousands in 2010, showing a growth of 11.48 per cent. Obviously, a highest number of day visitor arrivals are reported in 2008.

Thus, it is found that the Reserve has been a common interest place for the day visitors who appear to visit for the sake of wildlife sighting and experiencing the boat journey in the protected areas. As per the objectives and principles of ecotourism, the day visitors are not encouraged and their footfalls largely harm and disturb the habitations in the ecosystem. As reported that the numbers of day visitors keep on increasing, though it is marginally, the negative impacts like trampling, noise, loiters, traffic, demonstration effects, etc over the years have created a cause for concern for the preservation of wildlife and human habitations. Thus, it may be interpreted that the very basic purpose of ecotourism is defeated with the rising number of day visitors into the park and it has become more acute during the peak season.

5.1.3. Inconsistent Growth in Revenue Earnings from Tourism

The generation of foreign exchange from inbound tourist traffic in Kerala shows a 4.73-times increase from 2001 to 2008. It itself indicates the amount of multiplied economic activities at the various stages of the economy. Tourism sector is found to be
one of the major contributors to the SGDP and State Income. The year 2010 witnessed a growth of 31.12 per cent from tourism revenue generated directly and indirectly and 33.09 per cent the FEEs generated directly as compared to a complete slump in 2009 in terms of total FEEs and total tourism revenue. The major amounts of revenue generated from tourism generally come from the varied tourism activities at various levels of tourism industry indirectly. Hence, the tourism industry known for its trickle down effects has stimulated the passing of tourism expenditures to different hands in Kerala. Nevertheless, there were frequent variations in the percentage increase in the total tourism revenue of the State.

5.1.4. Insufficient Hotel Rooms and Beds

The present existing capacity of hotels does not seem to have sufficient number of rooms and beds to meet the growing demands of the visitors. The hotels may not look into the improvement of the various service parameters determining the service quality. As an effort to provide additional alternative accommodation, innovations and experimentations have been initiated at the government level to ensure the uniform standards for the home-stays operators across the State. Thus, the type of home-stays accommodation has partly solved the acute shortage of rooms at Kumily and the host-guest interaction has become possible. As a result, the concept of home stay is slowly gaining visibility and acceptability in Kumily and foreign tourists largely sojourn in the home stays as per the field visit reports.
5.1.5. Non-Adherence to the Green Globe and Agenda 21

Hotels at Kumily do not have adopted the codes of conduct of the Green Globe and the Agenda 21 to be eligible to run the eco-hotels and contribute to the sustainable ecotourism in the PTR.

5.1.6. Insufficient Number of Boats

All the five boats have the maximum capacity of carrying 1510 visitors in a day to the buffer areas or tourism zone for wildlife spotting. Given the rising demands for the wildlife sighting from the boats, the existing five boats appear to be inadequate to cater to the heavy rush of the day visitors during the peak seasons.

5.1.7. Scanty Revenue Earnings from the Boat Services

There was a steady decline in number of visitors who availed the KTDC boat services between 2006-07 and 2011-12, excepting the year 2008-09 during which 2.01 lakh visitors took the KTDC boating service. However, the KTDC-operated boats alone generated total revenue of Rs.30.54 lakh during 2008-09. While looking at the revenue earned from the boat services of KTDC, there was a gradual rise in the revenue from 2006-07 to 2008-09 and declined from 2009-10 to 2010-11. Nevertheless, there was a marginal increase in the number of visitors availing the boat services during 2011-12.

Thus, there is a direct positive relationship between the rise in visitor arrivals and the rise in revenue receipts from selling the tickets as boating is a principal attraction of the tiger reserve. On the contrary, the revenue being generated through the sale of tickets is certainly little as compared to the amount of damage and disturbances to the ecosystem of the tiger reserve. The scale of disturbances is becoming more due to the increase in the footfalls of the day visitors.
5.1.8. Need for Improving the Safety Measures

The KTDC has taken the persistent efforts along with the Forest Department for the improvement of safety measures for the visitors, including life jackets, emergency boat and lifeguard. However, it is found from the field visit and observations that there is no standby boat for handling the emergency situations as the boat mishap occurred in 2009 at the dam. It is clearly found that safety measures are certainly inadequate at the PTR.

5.1.9. Commercialization of CBEPs and Continuous Variations in Revenue Earnings

As found from the analysis, the Nature Walk has attracted a maximum number of visitors accounting for 45 per cent of total participants between 2004-05 and 2010-11. It is the hallmark of the PTR’s ecotourism activities. This particular walk is conducted to offer the participants a kind of opportunity to admire, appreciate and enjoy the greenery of the dense forest. Similarly, the Green Walk is found to be the second most important ecotourism activity on the basis of the total number of participants.

It is also reported that the Department of Forest, the PTR East Division has incurred the total revenue of Rs.690.27 lakh from all these 15 ecotourism programmes from 2004-05 to 2010-11. This amount of revenue generation itself explains about the trickle down effects in the local economy of Thekkady that remains to be a backward district in Kerala. While taking the total revenue generated from the individual ecotourism programmes, green walk, nature walk and bamboo rafting have been identified as the first, second and third best CBEPs respectively in terms of earning the revenue.
The continuous variation in the revenue generated from individual ecotourism activity is a cause of concern to be investigated further by the authorities. The amount of revenue generated from the ecotourism activities does not seem to bring about visible changes in the PTR areas and the community members do not seem to be benefited much from the revenue. These are the possible reasons such as lack of focused eco-tourists or nature lovers, increasing number of day-visitors and lack of coordinated efforts for which the volume of revenue has not been increased over the years.

5.1.10. Shortage of Manpower

The DFW has posted 125 forest guards for the PTR and these guards account for 64.76 per cent of the total staff positions. Similarly, there are 25 foresters representing 12.95 per cent of the total sanctioned staff strength of the PTR. Hence, the distribution of staff across the positions indicates that the forest guards have outnumbered all the positions. As many as 11 staff members are working for the foundation to execute the policy and programmes for the conservation of tiger. It is found that there is a huge shortage of manpower for carrying out the conservation measures and regulating the ecotourism activities in the PTR.

5.1.11. Lack of Training Programmes

Training programmes are not sufficient for the staff and community members to enhance their skills and capacities in wildlife techniques, functional language skills (Hindi and English) and biodiversity assessment. It is found that training programmes are also not being regularly conducted.
5.1.12. Generation of Revenue from Entry Fees

It is reported that the entry fees collected from the check post (foreign tourists) accounts for the maximum as compared to other sources of generating revenue. The check post for foreign and domestic tourists account for 55.42 per cent (768.76 lakh) and the revenue from boat service accounts for 12.74 per cent (176.86 lakh).

5.2. FINDINGS FROM DEMOGRAPHIC AND SOCIO-ECONOMIC BACKGROUND (TOURISTS)

The male tourist respondents have outnumbered the female tourist respondents in the distribution and majority tourists belonging to the young age group between 21 and 40 were interested for undertaking adventurous activities in the reserve.

Majority of tourists were found to be single without any family obligations and they are generally free to visit the ecotourism places. The PTR has been attracting the tourists who are largely not married and single with much interest in staying longer duration in the Thekkady region. The PTR has attracted more number of tourists with the nuclear family background and both domestic and foreign tourists are almost equal in number as far as the nuclear family is concerned. It is also found that there are a wide mix of ecotourism activities to provide educative and activity-based opportunities to the Free Independent Travelers (FITs) and (GITs) in the PTR.

A vast majority of domestic as well as foreign tourists have sound monthly income that seems to have created heavy disposable income to keep aside for the eco-tour or wildlife tour. This particular indictor provides sufficient evidence to substantiate the rising revenue from the ecotourism activities in the PTR and the trend may be taken as a reference for appropriate policy decisions to arouse interest for nature travel and widen
the scope for maximizing the revenue for the nature conservation and community welfare.

Tourist respondents largely preferred for the luxury taxis services and self-driven car to reach at Kumily. The findings may be supported with the breakup of the monthly income of the respondents. Majority of respondents belonging to the age group between 21 and 40 are employees working in the corporate. Almost half of total tourist respondents entered to the PTR through Kumily as it lies in the border of Tamil Nadu and Kerala. It may be one of the significant reasons for which majority of visitors find it convenient to enter into the PTR.

Ecotourism activities or adventure tourism activities do not appear to have motivated the visitors to stay longer at Thekkady. The results revealed that a little more than half of the total respondents could stay for 1-2 days. Thekkady attracts the first-time visitors more when compared to second, third or subsequent-time visitors. The findings of the analysis have revealed that all the efforts of the Department of Forest and the Tourism, Government of Kerala have gone in vain to attract repeat visitors to the PTR. It is also found that wildlife tourism activities along with tourism activities usually induce much interest to visit the surrounding places of tourist importance.

Majority of respondents are domestic tourists arranging their own trips to the PTR. It appears to be possible due to the familiarization with the places. It is also interesting to see a little more than one fifth of respondents who were guided by experiences and the word-of-mouth publicity. As much as 84.4 per cent of total respondents fall in the age bracket between 21 and 60 and these two groups are generally
adventure seekers and wildlife lovers and they spend maximum time at the destination to
learn, admire and enjoy the serenity of climate. The PTR’s ecotourism and wildlife
tourism activities do not appear to be attractive to the visitors or do not appear to add
much value to the experience.

More numbers of visitors visiting the PTR largely undertake an excursion tour to
the spice gardens, scenic beauty and countryside in the vicinity of Thekkady and Kumily.
Thus, it is inferred that visitors are more enthralled with other activities along with
wildlife and ecotourism activities. More qualified people are visiting the PTR and the
nature travel usually attracts the conscious visitors who not only learn, enjoy and admire
the nature’s beauty, but also work for the conservation of the forest and wildlife.

It is also found that tourists have clear and deeper understandings on the larger
benefits of direct participation that would be the real tributes to the community well being
and it is the wholehearted respect for the community to lead dignified life.

5.3. FINDINGS FROM THE ANALYSIS OF OPINIONS OF TOURISTS (FACTOR
ANALYSIS)

Tourist respondents largely agreed upon the creation and maintenance of facilities
and amenities along with safety measures for sustainable ecotourism the PTR. The
respondents have attached high importance to the improvement of professional skills,
quality of food and services in the restaurant, facility of ambulance and first-aid center,
carrying capacity, safety measures, community interactions, etc. It is revealed that
respondents moderately agreed with other statements explain the need for the
improvement of facilities and amenities.
5.3.1. Findings on the Basis of Five Important Factors

**Hospitality Services:** The relatively large proportion of variance explained by the factor suggests that the quality of hospitality services is a dominant element of visitor satisfaction. Ecotourism or wildlife tourism can be sustainable only when the service providers at Thekkady are conscious of their duties and responsibilities towards the destinations.

**Basic Facilities:** The relatively moderate proportion of variance explained by the factor explains that tourist respondents emphasized on the creation and improvement of the quantity and quality of facilities at the neighborhood of PTR and in the PTR.

**Basic Amenities:** The proportion of variance is relatively good and tourist respondents found this factor as third important factor determining the level of visitor satisfaction. It is inferred that amenities need to be improved to make tourists happy and delighted.

**Disaster Preparedness:** The results of the third factor with relatively good variance explain that disaster mitigation is an important factor that determines the decisions of tourists to undertake the diverse soft and hard ecotourism activities. This factor is regarded a key determinant of the visitor satisfaction.

**Value-Added Services:** The factor signifies the expectations of tourists for extra services that make them feel value-for-money and belongingness towards the destinations. This factor is found to be important when the PTR is taking all efforts to be an internationally known ecotourism/wildlife tourism destination.

It is also found from the results of correlation that all five factors are correlated to each other. The close relationship of all the factors clearly indicates that one factor alone...
cannot have any positive impact on the visitor satisfaction rather all these factors can contribute together for the optimum visitor satisfaction.

5.4. FINDINGS FROM HYPOTHESES TESTING (LEVENE’S INDEPENDENT T TEST AND ANOVA)

5.4.1. Visitor Satisfactions

The difference of means between foreign and domestic tourist are rejected with P value .000 in case of Hospitality Services and not rejected in the case of the remaining four factors such as Basic Facilities, Disaster Preparedness and Value-Added Services. With regard to the visitor satisfaction, there are no differences of experience between foreign and domestic tourist respondents on facilities, basic amenities, disaster preparedness and value-added services. There exists no difference of understanding in case of hospitality service. The one tailed t-test is still greater than .05 ( P<.5) in case of all these five factors. It is inferred that foreign tourist respondents equally emphasized on the hospitality services, basic facilities, basic amenities, disaster preparedness and value-addition.

5.4.2. Respecting Culture and Heritage

The test of Levene’s sample independent t test shows that the mean differences between foreign and domestic tourists are statistically insignificant that leads to drawing the conclusion that both two categories of respondents on the basis of their nationalities do not have differences as far as the seven aspects comprising broadly the interest of tourists in mingling with the local people to know, understand, learn and experience various cultural practices with the community members and vice-versa. Though there are mean differences between the two categories of respondents, it is marginal and it seems
to have occurred by chance. It is inferred that foreign tourist respondents equally emphasized on the significance of interactions of guests with the host for sustainable ecotourism in the PTR.

5.4.3. Seven Critical Factors for Visitor satisfaction

It is found that the mean difference between the foreign and domestic tourist are statistically insignificant that leads to drawing the conclusion that both two categories of respondents on the basis of their nationalities do not have differences as the seven aspects reasonable entry fee ticket, friendliness of employee, affordable room and food tariff, convenient to reach, community interactions, exhibition of local arts and crafts and friendly behavior of the people. The hypothesis on this particular item “Peacefulness “is rejected as p value is less the significant value drawing inference that there is a difference between the two categories of tourist as far as peaceful atmosphere of the PTR. It is inferred that both domestic and foreign tourists have equally regarded all the eight items expecting one “Peacefulness” as the key elements for visitor satisfaction.

5.4.4. Frequency of Visit and Visitor Satisfaction

The results of the mean values clarified that there are different of means among three groups of respondents on the basis of duration of stay (overnight) at the destinations. The results of the standard deviation explained that there is dispersion in the views of each category of respondents on all the five factors pertaining to sustainable tourism development.
It is inferred from the test of hypothesis that frequency of visit and five factors of visitor satisfaction that foreign tourists did not differ from domestic tourists in giving importance to visitor satisfaction factors. It may be further interpreted that foreign tourists are as much aware and conscious as domestic tourists in finding these five factors that may enrich or spoil the experience or since ecotourism or wildlife tourism can be promoted when these factors are taken into consideration.

5.4.5. Duration of Stay & Visitor Satisfactions

It is inferred that foreign tourists did not differ from domestic tourists in attaching importance to visitor satisfaction factors. Thus, the Forest Department and the administration of PTR and the private tourism service provider may be guided with the findings that apart from giving importance to the foreign tourists, attention should also be given to domestic tourists as far as the five visitor satisfaction factors are concerned.

5.5. FINDINGS ON THE BASIS OF FRIEDMAN RANK TEST

5.5.1. Enjoyment from Ecotourism Activities

The nature walk, elephant ride and bird watching are three important factors as it is revealed from the Friedman Rank Test. However, all these factors as a whole are very significant in alluring the visitors to the reserve.

5.5.2. Add-on Facilities & Amenities

The requirement for service boat, rest and reading room and refreshment center is found to be the first, second and third factors in order of the test results. However, all these factors play a very significant role in providing better facilities and amenities for visitor satisfaction.
5.6. FINDINGS FROM DEMOGRAPHIC AND SOCIO-ECONOMIC BACKGROUND (COMMUNITY MEMBERS)

A vast majority of young community respondents are young in the local community and majority of them do not have formal education and primary education to work in the skill-based jobs. At the same time, ecotourism projects, after the implementation of IEDP in the PTR, do not seem to have increased the educational level of local community members.

It has revealed that agriculture has remained to be one of the significant sectors for engaging local community members and the gross monthly income of community members is meager to meet the physiological needs. Thus, the economic impacts of ecotourism do not appear to have increased the income of community members. However, both tourism and agriculture provide maximum employments given the nature of occupational patterns. Many community members with graduation degree do not have dignified employments. However, employments being created by the tourism sector are disproportionate to the amount of investment and efforts of the government to make ecotourism as a means for income and employment in the PTR. In addition, majority of them are reported to have stayed more than two decades.

Majority of community members are living in the asbestos, concrete and tiled roofed houses and this could be possible due to the financial support of the governments under the Indira Awas Yojana.(IAY). Whatever improvements in the pattern of houses that have occurred at Thekkady may not be fully attributed to the revenue percolated from the ecotourism activities in the PTR.
Majority of community respondents do not own the vehicles regardless of their occupational patterns and the revenue tricked down from the ecotourism activities do not seem to have enabled to buy the bicycle as a basic requirement for conveyance as well as an asset for an ordinary family. Hence, the monthly income indicated by the community respondents does not seem to be adequate to meet the basic needs and majority community members do have the ability to purchase cycles when the monthly income of each of them is taken into consideration. It may further be interpreted that ecotourism activities do not appear to have made any such remarkable impacts on the improvement of socio-economic conditions of local community members.

Majority of community members have got the electricity connection with the provision of paying the monthly bill as per the amount of consumption of electricity. It is also found that there is a gap between the monthly income and expenditures and it must be giving so much of strains to each household to run the family in order to meet the basic needs.

5.7. FINDINGS FROM CHI-SQUARE TEST

5.7.1. Decision Making for Ecotourism

Interest in the management of ecotourism sites is closely associated with the age of the respondents. Thus, there is a wholehearted and spontaneous community participation in the PTR management regardless of the categories of age of community members. The years of residing is independent of extending support for management of natural resources. Community members may or may not take part in the management of ecotourism at the PTR irrespective of length of stay at the neighbourhood places. There is
an association between occupational patterns of and involvements in the decision-making process with regard to the management of ecotourism activities in the PTR. The effects of occupational patterns on involvement in decision-making process are relatively medium.

5.7.2. Sustainable Ecotourism Issues

The proportion of males who are interested to display their cultural activities to the tourists is not significantly different from the females. This indicates that there is no association between gender and displaying cultural activities to the tourists. Both male and female community members are inspired to welcome the tourists in the community as guests and display the cultural heritage of the villages.

Majority of community respondents had regular conflicts with wild animals at the time of crop damage and collection of forest produce along with intrusion to the villages. The proportion of male community members who found the conflicts is not significantly different from the female members. Thus, both the male and female members are independent of each other in judging the conflicts as threats to the sustainable ecotourism at the PTR.

Majority of community members across the gender were well aware about the possible alternative sources of income from the ecotourism activities in the first choice. The proportion of males, who wanted ecotourism as an alternative source of income, is not significantly different from the female counterparts. Thus, both are different in their opinions and understandings on the prospects of ecotourism in generating income for the
local populations. Hence, the effects of gender on ecotourism as an alternative source of income are comparatively small.

Nearly half of community members across the five principal occupational patterns had endorsed the use of revenue generated through ecotourism in the PTR for LAD. Thus, there is an association between occupations and revenue earned from the ecotourism for LAD. Hence, the effect of occupational patterns of community members and revenue earned from ecotourism is found to be medium.

5.8. SUGGESTED STRATEGIC ACTIONS

The major findings of study are the eye-openers for all those involved directly and indirectly in the ecotourism projects at the PTR. All those findings are very indisputable as far as the preservation of rich biodiversity of the tiger reserve and implementation of sustainable ecotourism is concerned. The detailed analysis of both primary and secondary data has uncovered many concealed and incomprehensible facts and figures with regard to visitor satisfaction and community empowerment. It is quite certain that any forms of development can have positive and negative impacts. There can be variations in the impacts, but the possibility of creating more negative impacts is high when the process of development is not monitored at different stages in a well-coordinated manner.

Impossible to prevent the entry of visitors as the PTR has carved a special niche in the wildlife tourism market in the overseas as well as domestic market. At the same time, the expectations of local community from ecotourism would be more when involvement is direct and spontaneous. Thus, all the findings are primarily relevant for
the policymakers, administrators, tourism enterprises and NGOs to discuss and debate as to how the PTR can be a sustainable ecotourism site, how much development should be permitted and who should take the lead roles for regulating the mass tourism menace. Some of the findings are very genuine and actions need to be taken at different levels. The study has identified a good number of findings on which suggested strategic actions can be initiated to meet the expectations of visitors and community members.

It was clearly and closely observed that there are fundamental issues related to hospitality services, facilities, amenities, safety and personalized care with regard to visitor satisfaction. Other issues like carrying capacity, visitor footfalls, manpower, parking, traffic, behaviour of frontline staff, etc have become worrisome for the administration of the PTR.

On the contrary, community members have just symbolic participations as a member of EDC and the benefits for community from ecotourism and contributions of community members with their indigenous knowledge to make ecotourism sustainable do not seem to be noticeable at the PTR. However, closing the PTR forever for the entry of visitors for the preservation of ecosystem cannot be the options or solutions, but some remedial measures can be of immense beneficial to the PTR to bring visitors and community together in order to make effective management of natural and man-made resources for the sustainable ecotourism.

Thus, these are some of the chronic problems that will remain to create hindrances if timely actions are not initiated. The discussions and debates have finally necessitated to search for suitable or alternative ways of managing the PTR from the perspectives of
visitor satisfaction and community empowerment. After having been guided by the results of the analysis of secondary data in general and primary data in particular and the researcher’s own observations, the following strategic actions would certainly be the remedies for the PTR to be as beautiful and pristine as it has been from the time immemorial.

5.8.1. Preservation of Wildlife Habitations

Wildlife is a key component of ecotourism and the uniqueness of the attraction of the Periyar is tiger. As found from the study, there is a disproportionate increase in wildlife population resulting in the disequilibrium in the ecosystem. As a result, it has negatively affected the growth of tiger population. It is suggested that the rich biodiversity of Periyar as a critical part of the Western Ghats should be protected for evenly growth of wildlife population. Moreover, efforts should be taken to find the primary reason of the imbalance in the wildlife habitations. The Department of Forest should evolve the cutting-edge technological tools to conduct the tiger census in lieu of the traditional camera trap and pug mark methods. These methods have many methodical flaws resulting which the accurate tiger census may not be collected.

5.8.2. Regulation of Entry of Visitors

Each protected area should not be opened to the mass tourists and their activities. As the PTR is an indentified ecotourism site in the protected area, tourists should be permitted to participate in the CBEPs rather than the day-visitors. The activities of the former generate tangible and intangible benefits than the latter. As such, the entry of day-visitors is increasing and their contributions to the community benefits appear to be very insignificant as compared to the damage or harm to the biodiversity and ecosystem of the
reserve. The activities of day-visitors have become a liability and a cause for concern for the park administration.

Whatever primary problems are connected to the facilities and amenities, the arrivals of day visitors make mess up the serenity and beauty of the reserve. Their temporary stays and movements in a day largely create havoc at Thekkady. As such, the day visitors do not have attachment or belongingness towards the tiger reserve. They are more consumptive rather than participative. Thus, it is strongly recommended that heavy entry fees and user fees should be charged to the day-visitors for the use of facilities and amenities. At the same time, hotels at the Thekkady and Kumily should work with the transporters, tour operators and travel agents to make the day-visitors as an overnight visitors and this will increase the occupancy rate and revenue for the park. In this connection, both these two Departments (Forest and Tourism) should take steps for making publicity of the PTR as an overnight destination.

5.8.3. Promoting Responsible Tourism

Tourist arrivals should also be regulated by taking carrying capacity and visitor satisfaction into consideration. The qualitative responsible tourism should be encouraged to effectively position the PTR as a value-based tourism destination with strict adherence to the guidelines of Green Globe and Local Agenda.

5.8.4. Addition of More Eco-accommodations

It is quite clear that the more the tourist arrivals the greater would be the impact on the increasing number of hotel rooms and beds. More eco-hotels and resorts should be built nearby Kumily and Thekkady to create additional rooms and beds to cater to the
growing number of tourists and all these hotels should follow the guidelines of sustainable tourism framed by the UNWTO and the PATA. All the hotels must switch over to the renewable energy, water treatment, rain water harvesting, solid waste management and rapid plantation. The construction of eco-lodges should be permitted at the manipulation zone or tourism zone and the eco-lodges should jointly be managed by the Department of Forest and Tourism, Government of Kerala. However, the lodges should adhere to the local house patterns as per the Jungle Lodges and Resorts in Karnataka. The Department of Forest should enforce the stringent rules for the accommodation operators and compel them to make use of renewable energy in the form of biogas, wind and solar energy.

5.8.5. Development of Transport & Communication Network

The frequency of luxury intra-state and inter-state transport services should be operated from the major cities from Kerala, Karnataka and Tamil Nadu. The initiatives of the State Government to improve road conditions are well appreciated and other extents of roads from various gateways to Kumily should regularly be maintained with the help of the Public Private Partnership (PPP). All tourist vehicles plying to Thekkady or Kumily should be governed by the strict traffic rules and there must be tolls for these vehicles. It is recommended for the Build Operate and Transfer Basis (BOT).

5.8.6. Qualitative Improvement of Facilities and Amenities

Facilities and amenities should be developed without making any alterations to the environmental settings and natural landscape. The eco-friendly facilities and amenities determine the quality of visitor satisfaction. Efforts should be made to promote
ecotourism circuits and the PTR should also be included in the circuit. Drainage system should be improved at Thekkady and Kumily and the sewerage treatment plant should be set up to decompose the waste and recycling of sewerage should be used for manure purposes. Illumination of streets should be done with the help of solar lights.

5.8.7. Penetration of Professional Services

The infusion of professionalism in the private tourism organizations should be encouraged so as to bring about changes in attitude, dynamism, delivery, quality, discipline, accountability, etc. For instance, the staff of KTDC should be given continuous training. It is highly recommended that staff or executives should be appointed with the basic qualifications of tourism and hospitality.

5.8.8. Capacity Building Training Programmes

Efforts should be made to enhance the capacities of the frontline workers in the tourism industry through the sensitization programme for auto, bus, taxi and lunch drivers. The Government of Kerala should formulate a government-led, private sector-driven and community-oriented ecotourism policy and programmes for sustainable ecotourism development that can be the means for poverty alleviation and unemployment eradication. This goal of the government can certainly be achieved when more awareness campaigns, training and capacity building programmes can be initiated. It is suggested that the Department should go for collaborating with the professional institutes for conducting training programmes on soft skills like grooming in personal etiquette, communication, sincerity and honesty as part of professionalism.
5.8.9. Preservation of Originality and Authenticity of CBEPs

The present form of conducting the CBEPs seem to be highly commercial and the aim is to generate revenue rather than providing an educative and learning experience. The study has suggested that apart from nature, green walk and bamboo rafting as the three best preferred activity-based ecotourism, other programmes need to be fine tuned in accordance with the environmental and ecological capacity of the PTR. Thus, it is suggested that the originality of all the programmes should be preserved as eco-lovers or eco-tourism tend to visit the reserve for the sake of enjoying the originality. There should not be commoditization of the products and alteration of any forms should be allowed to happen at the reserve.

5.8.10. Approach for Preserving Ecology and Environment

Environmental conservation is a major factor for sustainable ecotourism. Hence, tourism development should promote eco-friendly ambience and steps should be taken to ensure massive plantation and protection to the wild animals, herbal plants, etc. Ecotourism can be sustainable when there is a compatible with the environment. It is highly recommended that eco-club should be established at educational institutions nearby the Thekkady and Kumily to undertake several activities and the school children and volunteers should be motivated to work as Green Brigade for conservation of forest, wildlife and biodiversity. Tourism club should also be created to work in close cooperation with the Department of Forest, the Periyar Foundation and the EDC for solving the local issues of tourism.
Vehicles with Compressed Natural Gas (CNG) should be allowed to operate between the main parking areas and entrances of the tourist centers. For example; the CNG driven auto rickshaw should be introduced from parking area to the boat jetty and vice-versa. There should be well-defined regulations to check the rampant exploration of ground water by the accommodation operators. A monthly programme should be organized to encourage the visitors to plan the indigenous trees and visitors should be motivated to take care of the cost of raising the trees. The implementation of model of conducts for ensuring sustainable ecotourism as per the Agenda 21 and local Agenda 21 must be taken up prescribed by the UNWTO.

5.8.11. Spontaneous Community Participation

Sustainable ecotourism needs larger community involvement. They should be empowered to be the custodian of tourism resources at the PTR. As a result, the community members may develop a sense of belongingness towards the maintenance of tourism facilities and amenities. Community participation and consultation should be incorporated for making effective management of sustainable ecotourism.

Community empowerment is a major determinant of sustainable ecotourism development as benefit should do tickle down directly to the local residents, including economic benefits. Thus, community should be allowed to play a decisive role at the PTR. The DTPC should be more proactive and should make regular interactions with the community. Adequate representatives from community, government, tourism service providers and NGOs should be given in the DTPC. Local community members should be allowed to get free entry into the protected areas as it is the ego and pride of the local
people attached with the places from generation to generation. Community should be empowered administratively and financially to take constructive decisions as an integral part of development in their local areas.

5.8.12. Strengthening the Disaster Preparedness

The Department of Forest should look for strengthening the mechanism for any untoward incidences. A minimum of one standby service boat along with lifeguard and life jackets should be procured as the Tiger Reserve has already experienced the tragic boat mishaps. It is suggested that a white brigade should be created consisting of community members and students from local colleges and universities to assist the Department to regulate the traffic and parking and at the PTR during the peak season. A system of community policing should also be introduced around tourist destinations.

5.8.13. Enriching and Preserving Social and Cultural Values

Social and cultural values are the integral parts of sustainable ecotourism. Though there are differences of understanding of community respondents for sustainable ecotourism and tourism industry should provide suitable employment opportunities to the women workforce to resolve the differences. Awareness should be created among the women about the merits of tourism development. Efforts should be made to exhibit the unique socio-cultural practices of nearby villages. It is suggested that tour operators should conduct village tour with the support of villagers. Similarly, other tour operators and hoteliers should indentify the potential villages and adopt the villages for preservation of traditional dance, music and other forms of Art. Moreover, ethnic food should be promoted to give delightful experience to the tourists during the village tour.
5.8.14. Trickling Down the Economic Benefits

Economic benefits should trickle down to the community not for the present but for the future for which community members understood that tourism development should tend to be community oriented. It is suggested that the revenue from tourism in the form of tax should be spent for local area development. As a result, it will diminish annoyance and antagonism of local people towards tourism. Private tourism establishments should also spend for the LAD in the form of providing medicine to the local primary health centers and books, uniforms, note books, etc to the school going students. They may float a common fund to meet the expenditures for maintenance, preservation, safety, rain water harvesting, sewerage treatment, etc. The proposed funds may also meet the basic need of local people for instance, health, education, drinking water, etc. Tourism service providers should use local raw materials to a maximum extent to boost the local economy of the place.

5.8.15. Management of Carrying Capacity

Tourism offices should give descriptive information to visitors by means of literature, guidance, lectures, exhibits and demonstrations, so that, they can be more enlightened and responsible without damaging the environmental setting. Physical, psychological, social and economic carrying capacity should be maintained in a very scientific way to maintain the sustainability of tourism destinations. Carrying capacity can effectively be managed and maintained by the creation of various zones at tourist destinations. Zones should be established on the basis of natural resources and needs for protection and capacity to absorb recreational involvement. They are specially meant for
preservation of Art, culture, wilderness, natural environment and outdoor recreation and park services.

These zones should be named as entry and exit zone, rest and recreation zone, interpretation zone, shopping zone, entertainment and amusement zone, adventure zone, sculpture zone, parking zone, no horn zone, herbal plantation zone, accommodation zone, water harvesting and treatment zone, sewerage zone, etc. Signage with captions in multilingual language indicating the name and activities of zone should be fixed at the visible places. Sale of entry tickets should be fixed to an optimum number beyond which entry tickets should not be sold. It will have tremendous effect on the effective on the management of carrying capacity and visitor satisfaction more effectively. Facilities for advance entry ticket booking with a provision of online boat ticket should also be introduced to determine the number of visitor arrivals in each day.

Interpretation center or visitor center should be built to exhibit the photographs and video show for half an hour or an hour in order to make the visitors familiarize about the cultural or natural richness of the place in the form of photographs of the ecosystems, people and tourism attractions. A user friendly computer should also be fixed at the entrance of the tourist centers to provide information on various aspects of destination.

On the top of all, traffic movement must be regulated to maintain the carrying capacity of the place. It is suggested that road should be expanded; the entry of vehicles should be regulated and parking areas should be created from a reasonable distance from the tourist site.
5.8.16. Local Area Development Fund (LADF)

It is suggested that a common fund should be raised to meet the contingencies of tourist destinations. It is a part of the Corporate Social Responsibility (CSR) of the hotels, resorts, airlines, tour operators, souvenirs and shopping mall owners, etc to share their profits towards the community and its neighborhood development. It is otherwise known in tourism industry as responsible tourism. The fund should be spent for adopting schools, villages and nearby potential tourism destinations.

Sustainable Tourism Certification Programme (STCP) should be organized in collaboration with the UNWTO, WTTC and PATA for tourism stakeholders to increase their capacities for working in the tourism sector more efficiently and effectively. This proposed fund should also be spent for creating sensitization programme among the tourists and local community members about the implications of sustainable tourism development. A tag line in the title “Saving the Periyar Saves the Own Motherland” is proposed in the study and this proposed tag line should be reflected in all tourism information materials, websites, hoardings, posters, tourist vehicles, boats, etc to sensitize all tourism stakeholders, including visitors.

5.9. MODEL FOR SUSTAINABLE ECOTOURISM

An integrated model has been evolved from the analysis and discussions to provide a methodical approach and guidance to the implementing agencies at the PTR. It is reported that the inflows of increasing number of day visitors have created a serious pressure to the fragile ecosystem of the reserve, leading to the depletion of the rich flora and fauna. In the present study, Visitor Satisfaction is one of the important aspects of
ecotourism that depends upon many factors. Similarly, community is also an important partner for the successful implementation of ecotourism guidelines.

For taking care of the visitor satisfaction, Basic Amenities, Basic Facilities, Value-Added Services, Environmental Education, Environmental Laws, Carrying Capacity and Word of Mouth should be given much emphasis while managing and operating the tiger reserve as an ecotourism destination. In the similar manner, Community Empowerment can be more effective only when Training and Capacity Building, Development of Local Livelihood, Role of NGO’s and Equity, Expansion, Equal opportunity in decision-making process and involvement of women are included in the policy. Figure 5.1 illustrates the model for Sustainable Ecotourism in the PTR with special emphasis on the community-based ecotourism project. This must conduct various trainings/capability-building programmes on leadership training, organizational development, livelihood development, environmental laws, ordinances and environmental resolutions, tour guides and environmental education. Other soft skills are needed to manage the project effectively and profitably without destroying the ecotourism attractions to ensure equity and excellence of ecotourism projects. The figure also presents the importance for the need of collaborative work between the local private tour operators, the local elected bodies, NGOs and various other government agencies.
Figure 5.1
Suggested Model for Strategic Actions for Sustainable Ecotourism

Sustainable Ecotourism in FTR with the help of Visitor Satisfaction and Community Empowerment

VISITOR SATISFACTION
- Basic Amenities
- Basic Facilities
- Value Added Service
- Environmental Education
- Environmental Laws
- Carrying Capacity
- Word of Mouth

COMMUNITY EMPOWERMENT
- Training and Capacity Building
- Development of Local Livelihood
- Role of NGO's AND NGO's
- Equal opportunity in Decision making process
- Empowerment of Women

SUSTAINABLE ECOTOURISM DEVELOPMENT
5.10. SCOPE FOR FUTURE RESEARCH

The findings of the study have paved the way for further research in the similar field. This particular research work has laid emphasis on Visitor Satisfaction and Community Empowerment to study the problems related management of ecotourism sites.

Hence, the future researchers should take up the study on the PTR from the perspectives of other stakeholders or the day visitors. There can also be similar study with special reference to Visitor Satisfaction and Community Participation at other ecotourism sites in the protected areas in Kerala. Thus, the study is on “Visitor Satisfaction and Community Empowerment for Sustainable Ecotourism: An Evaluative Study on Periyar Tiger Reserve in Kerala.”

5.11. CONCLUDING NOTE

Balancing the activities for promoting ecotourism and conservation of forest, wildlife and indigenous people has been a strenuous and challenging task. Establishing a harmonious and symbiotic relationship between the stakeholders involved in the ecotourism projects directly and indirectly has become a mission of the government to minimize the conflicts between man and nature for their own survivals. In certain cases, the relationship is sustainable and in some cases, it has become seriously unsustainable. Many protected areas in Europe, Africa and Australia have evolved many pragmatic mechanisms to offset the negative impacts of tourism. Tourism and percolation of benefits to the community is direct and participation of those community members is spontaneous. As a result, ecotourism has been appreciated and accepted across the
protected areas in Africa to be institutionalized. Several studies have revealed the outstanding contributions of ecotourism projects for ameliorating socio-economic conditions.

Ecotourism is an important form of alternative tourism with primary objective of making low negative impacts at the destinations and maximizing benefits for the community. This form of tourism has been given an international recognition as an impetus for nature conservation and economic development. The study has focused on the Tiger Reserve in the protected areas at Thekkady in Kerala. The reserve has recently received coveted a UN-India Biodiversity Governance Award instituted by the Government of India and the United Nations Development Programme (UNDP) for the best managed protected area of country. This award itself speaks so much about the conservation measures for the tiger and the rich biodiversity. However, the tiger census has recently published the report of 35 tigers in the reserve. It is certainly an indication that there is a dynamic ecosystem that maintains a propionate growth of wildlife population. This intends to explain that ecotourism does not seem to have made adverse effects on the functioning of ecosystem for preservation of biodiversity.

The study after having discussed in length and breadth of sustainable ecotourism in reserve has found that the increasing and uncontrolled form of mass tourism with the heavy inflows of day visitors has become a major threat to the reserve to continue in maintaining the balance between tourism and conservation. It is not to be overenthusiastic with the rising number of predator population or worried for the onslaught of mass tourism, but it is the time to reconcile the approaches to minimize the
day visitors with several suggested strategic actions, thereby saving the coveted ecotourism destination for future tourists and host community members.

It is reported that community members are not largely being benefited from the ecotourism projects and the EDC appears to be ineffective and partial in its approach to empower the local people. At the same time, the overnight visitors are largely getting disturbed by the irresponsible behaviour of day visitors. It is also found that day visitors are shortsighted and narrow-minded. Their interests lie with the overconsumption of nature for their own sake. The question will certain be raised while discussing the fate of ecotourism projects at the PTR. These questions are as follows;

When can the administration of the PTR control the menace of day visitors?
How can the harmful effects be measured? and when will the corrective measures be taken?
How the EDC can become effective in empowering the local people?
Have the local hotels become aware of their negligence towards the ecotourism projects?
Which agencies will monitor the implementation of the Agenda 21 for the tourism service providers?

The study has made all possible attempts in a span of three and a half years to investigate all these questions. However, the study has found some fundamental problems and suggested some strategic actions to deal with these chronic maladies. Nevertheless, the study has built an argument for sending the visitors happy and satisfied, but not compromising the basic principles of sustainable ecotourism or not at the cost of loss of habitats. At the same time, the has also put forth the logical inference for the community
to be empowered politically, socially and economically, but not the role of the Department to sensitize for their basic rights and comfort, but the community members themselves must how their keen interests and they should volunteer for ecotourism projects.

A study of the reserve with special reference to ecotourism is a unique one and studies so far conducted have only reflected on ecological, ethnographic, tribal related studies. These studies are equally important as they are closely knitted with the ecotourism development. Visitor Satisfaction and Community Empowerment are two important variables that plays a pivotal role in the ecotourism development of any destination has not been touched much in the literature.

Ecotourism must respect the socio-cultural authenticity of host community; conserve their built and living cultural heritage and traditional values, thereby fostering inter-cultural understanding and tolerance. Finally, the viable and long-term approach is needed to make fair and equitable distribution of income and employment and to ensure the social services to host community members. This will be real tribute the UNWTO’s Agenda 21 that largely focuses on the alleviation of poverty, unemployment and malnourishment. Further, the sustainable code of conducts should be implanted in letter and spirit. There requires a forward-looking policy that must be led by the community and controlled by the governments.