CHAPTER- 8

Conclusions and Recommendations

The purpose of study is to identify the various impacts of tourism on the environment and on the local communities, and the board objective are to assess the contribution of tourism in observed expected environmental modification and estimate the demands for resources for the regional environment. From the viewpoints of these objectives, the framework adopted in the study, has been distinguished into four- major classes of environmental impacts of tourism. These are:

1. Consumption-related impacts on resources.
2. Production-related impacts on resources.
3. Production-related residual impacts.
4. Consumption-related residual impacts.

The resources’ impacts concern depletion and competition for resources between tourism and other economic activities while the residual impacts refer to pollution and environmental degradation of resources. Various consumption and production related characteristics have been identified and listed through the study. The list shows that the tourism in the area is not as fully explored to its full potential. Adequate tourism infrastructure is lacking like safe drinking water etc. The tourism assets are present in the area. The tourism that is going on in the area at present does not show any negative impacts except littering, collection of fuel-wood from the local area, pollution due to bathing and washing of utensils at the water channels. Although it should be borne in mind that there is variation in the interest of the tourists and their behaviour pattern, particularly, with reference to environment, purpose of visit and condition of the area. Therefore, the objectives of visits to the sites and the present assets of the destination area have been identified in the research.

The analysis of the data prepared from in-depth personal interviews of the tourists as well as the local residents illustrates that for the areas of the Salkanpur and Bhojpur do not have any infrastructure other than the cultural
value system attached to the area due to the religious belief or the inherited cultural traits. Only tourism offers some positive opportunities for absorbing the locals, unskilled workers within the area. In this respect, tourism acts a catalyzing agent of capital formation, ensuring better use of human resources. Also the proximity of the Sanctuary to Bhopal city and its wildlife potential hold the key to great tourist potential. To attract tourists, creation of basic infrastructure is necessary in Ratapani WLS. The damaging factors are the frequent fires, overgrazing and illicit felling. So while promoting the tourism in the area (WLS) it is necessary to take concern of these factors and prior remedial measures and the proper formulation of policies. There is a great potential for the nature lovers and bird watching tourists in these areas (Ratapani and Kerwa destinations). The tourism potential of these sites has yet to be explored and utilized to full extent. It has been commented by the experts during the survey that at present the Tourism Development Corporation is mainly concerned with the cities and tourists coming from outside. There are certain spots like Bhojpur and Salkanpur, which are of great interests to the local population. The conditions here are deteriorating and no action to ameliorate has been taken up.

In order to identify various impacts of tourism on the environment, different elements and parameters were selected, keeping in mind the time, extent and limitations of the study. The environment was divided under the following broad categories for the convenience of the study:

a) Physical Environment - Land use pattern, Road and Infrastructure, Agriculture pattern.

b) Natural Environment - Flora

c) Socio-cultural environment - Villages, Socio-Cultural and Economic aspects.

Also through the visitors’ survey, visitors experience and willingness to pay, the condition of the present environment status has been determined.
Literature on tourism impacts suggests that tourism–related social changes could evoke a variety of both positive and negative perceptions in the host community members (Besclides *et al.*, 2002). Researches indicate that economic and socio-cultural factors such as community attachment, length of dwelling, economic dependency on tourism and stage of development can influence residents’ perceptions of and / or attitudes towards tourism (Lankford and Howard, 1994; Ap and Crompton, 1998). From the survey and observations, it has emerged that the locals are not conscious of impacts that tourism can cause on them and on environment. It has also been observed that residents who are engaged in some tourism related activities or getting some kind of benefits from tourism, respond positively towards the development. Low rank has been given to the questions like pressure on resources, noise pollution, disturbance to the local people, promoted crime and moral laxities etc, while some respondents have given more score to the positive aspects like promoted jobs for locals, promotion of scenic beauty of the area, more plantation programmes, conservation of woodlands etc (Xio and Li, 2004). Residents who are much involved in tourism and have consequently derived greater benefits from the industry, are more likely to hold supportive attitudes towards its further development. They also hold similar viewpoints. Tourism development at present seems to be serene. Prima facie, it is not entirely clear what will be the economic and environmental consequences of the development driven by tourism in the designated areas, viz. Bhojpur, Kerwa and Bhembaitka. The size of the economies is rather small at Kerwa, Bhembaitka and Ratapani Wild Life Sanctuary, and not much benefit is generated through the adjacent population due to tourism. Economic sectors that can be distinguished include local services, agriculture, public sector and infrastructure. The majority of these assets are lacking at the Kerwa, Bhembaitka and Ratapani. Other major tourism-based sectors, viz. accommodation and services, are totally absent at Kerwa, Bhembaitka, Ratapani and Bhojpur. The non-local bodies arrange the transportation and no special benefits to the local population are generated except employment to few local persons. The major key findings from the study of the important
destinations, namely Salkanpur, Bhembaitka and Sanchi, are being mentioned here. Salkanpur receiving the boom of visitors’ influx is important to be discussed here as it has uncontrolled tourism going on at present.

**At Salkanpur**, the major problems that have resulted in the present scenario at the place are due to lack of proper management. The temple is maintained and looked after by the *Beejasen Devi Temple Trust*. The unmanaged and uncontrolled tourism in the area is causing some impacts ecologically, culturally and aesthetically. The impacts that are perceived and come out from the study are listed below:

1. The major problem at the Salkanpur, that has resulted from the visitors activities is littering and waste spreading (especially Polythenes, food materials etc). The waste disposal treatment that is adopted at present, is collection of waste material and burning (which in itself is a threat to the environment and to the forests nearby as they are dumped at the hillsides of the site, *photograph illustration justifies this*). The waste collection bins and the dust-bins are also lacking at the site. The staff engaged in the cleaning and maintaining of the site is not sufficient to deal with the potential problems arising from the tourism in future. The lack of awareness among the visitors is also a major problem here.

2. The Polythenes and other non-biodegradable substances that are brought into the local environment by the tourists can cause direct effects on the forests nearby, if entered into the food-chain of the surrounding forest dwelling animals.

3. No record of visitors’ influx is maintained and available to the authorities, as there is no such provision of the visitors’ management at the site. Same is true for the Bhojpur where no authentic records are available with the authorities.
4. Due to the overcrowding (especially during fair and festival times) results into difficulties of access to the site. Also the pressure on the land for parking of vehicles is increased. The heavy rush on the approach road of the temple is causing damage to the local flora and fauna, as the road has been built in between the forest through the hilltops.

5. The constructed road is a ‘kaccha (earthen) road’ that causes soil erosion and dust problem at the hilltops which renders ill impacts at the place. This is not good for the natural value of the place.

6. The uncontrolled, unmanaged and ugly construction of the shops at the site has resulted in the loss of aesthetic value of the place. During the peak seasons, the situation is even much worse that results into the visual pollution.

7. Noise level at the place is also above the prescribed standard limits due to heavy use of speakers, crowds, and the concentration of locals and the visitors at the sites. These may have prolonged effects on the locals in the coming decades of tourism development.

8. The water bodies at or near the Salkanpur are also not well managed and they are polluted due to use of both the locals and the visitors.

Other prominent impacts found here in the study, are economic and the socio-cultural impacts. This may also be attributed to the type of tourism here, which has been described in the section below I

The findings are different for the Bhembaitka and Delawari (Ratapani) Destinations, as they are the part of visitors’ influx that is in the protected area. The forest department controls the hold of visitors’ activities in these areas. From the surveys and the results, following conclusions can be drawn:

1. Presently because of the very short-stay and concentration of visitors in the core areas of tourism destination, the potential for negative impacts is so
far negligible, but the issues discussed in the study are important to be addressed for the management of growing tourism in the area with respect to sustainable tourism.

2. The area at present is at its low tourism ebb. Thereby, the major benefits cannot be reaped that may result from the tourism in the area and to the locals.

3. At present there is no significant impact that can be said to be as a major externality in the area. The proper management and the strict enforcement of the laws may be one another major reason for this, as the area is a wildlife protected area.

4. Strict measures and the low education level of the locals are the major tourism related issues that have emerged from the survey results. This indicates that for mitigating any impact due to tourism development in near future, the education level and awareness should be enhanced. Also, because of lack of awareness and low educational level, the locals are not able to reap much of the benefits coming in the area due to the tourism development.

5. Salkanpur site is situated in the Ratapani WLS, which is a protected area, and no vigorous tourism activity is carried out beyond the destination site of Bhembaitka. But the potential impacts in near future are significant that have been captured in the local survey results of the study, and need to be addressed in future management startegies.

6. The environmental issues that have emerged in the study and analysed in the report are of significant concern for the planners and the managers, so as to mitigate the impacts due to the upcoming tourism development in the area.
7. Community participation along with the interventions of government and forest department for effective planning is the major requirement for the successful tourism development in the area.
8. Strict regulatory measures for regulating the activities at the tourism destinations are required to be institutionalized.

The study area endowed with beautiful landscapes and natural ecosystems can provide several services and goods to the socio-economic system but its potential is not yet fully explored. Due to this the present tourism scenario does not shows any conspicuous impacts on the environment or on the local communities. This is also attributed due to the fact that the visitors spend most of their time at the site only and their concentration is confined to the site itself. But it has been found that due to the concentration, waste materials like polythens, food materials, papers etc are scattered causing excessive accumulation of waste materials at the site. The waste materials may get access into the water bodies nearby in the areas like Kerwa, Bhojpur, Salkanpur etc., which possess water bodies around the sites of major attraction for the visitors, and thus can have adverse impacts on water ecosystem and can lead to the pollution of water in future.

There are no apparent impacts on the flora, as the visitors are not allowed to enter into the nearby forest area. This has also been revealed statistically in the study that there is no-significant difference between the tourism affected area and the protected area (as here all the controlling management measures are present). It may be observed that the impact of tourism activities going on in the area is low at the controlled site as depicted by the mean value. In addition to this, the diversity of the two areas selected also does not show much difference; the diversity of the area has not been affected by the tourism activities till now.

The determinants of development and growth include number of visits (for the tourism sector), profit levels and benefit sharing, developmental policies,
environmental management system and practices with the major ecological attractions. The module below presents the regional development module of the area. The dependent variables are the landscapes by type of vegetation or land use patterns, the driving forces generated by the “economic activities” and infrastructure development.

A. Demand characteristics
The demand characteristics by the visitors for the sites, when social influence is not taken into consideration, shows that with the increase in the number of trips, the demand for the site is getting declined (Figures 4 to 7 showing graphs of demand characteristics). This can be validated by their willingness to pay by the visitors. The frequency of visits also decreases to the place. The decline in demand characteristics may be attributed to the infrastructure or to inappropriate consumption patterns. The unmanaged tourism in the area may also be a reason, specially at Salkanpur, Bhojpur and on the other sites; the infrastructural bottlenecks play important key role for this decline at sites in demand like Kerwa, Ratapani WLS, and Bhembaaitka. The production patterns are also not sufficient to cater to the future demands of visitors. The basic facilities needed for supporting the tourism in a sustainable way are also lacking or underdeveloped. The results of the observations for Sanchi show that the site in itself is attracting tourism and is using the tremendous potential for attracting the foreign tourists to the site. Tourism at Sanchi is a major source of revenue generation for the state as the total foreign tourists’ arrival at the site during the year 2003-2004 was 11,959 out of the total foreign tourists’ influx of 81,578, thereby, contributing 14.6% of the total foreign tourists’ arrival in the site. In spite of having tremendous potential and place on the international map of heritage and tourism sites, Sanchi still receives low foreigners than the other heritage tourism destinations in Madhya Pradesh like Khajuraho, Orcha etc., which received about 44,000 and 26,000 tourists respectively in 2004. The main reason for this low arrival, which is also evident from the survey and perception of the tourists at the sites, is the infrastructural bottleneck. The road and the accommodation facilities are not
adequate and appropriate to cater to the demands of the foreign tourists. The Archeological Survey of India is taking all the measures through necessary management practices to preserve the cultural and historical values of the site. The carrying capacity problem and the negative impacts, if any, due to tourism activities can be controlled at the site through proper management interventions, reflected adequately at the sites.

On the positive side, tourism in the area is responsible for the development of the area through infrastructures of roads, electricity, transport facility, telephone, and other infrastructural support in the area. Tourism in the area has provided jobs to the locals as the majority of locals are dependent on the tourism in the area in their own perceptions. While for some of them, it is the additional source of income that is increasing the living standards of the residents, for others the tourism consequences are causing impacts on the domains of the environment. Increased pressures on the land, noise generation, vehicular pressure on the roads etc, are the consequences of tourism.
REGIONAL DEVELOPMENTAL MODULE

ECONOMIC
TERRESTRIAL
(Infrastructure development
And visitors amenities)
ENVIRONMENTAL ATTRACTIONS

AMENITIES

LOCAL ATTRACTIONS
VISITORS

NOISE GENERATION
POLLUTION
CONGESTION
DAMAGE TO FLORA & FAUNA

DISAMENITIES

MOTIVATING FACTORS

Slide 11: Regional Developmental Module
PRODUCTION AND CONSUMPTION AS A SOCIAL & ECOLOGICAL PHENOMENON

Slide 12: Production and Consumption Module of the area as a Social and Ecological Phenomenon
ECONOMIC MODULE

TOURISM AT KERWA

PEAK SEASON

LEAN SEASON

PERMANENT ESTABLISHMENTS

TEMPORARY ESTABLISHMENTS

OTHER TOURISM RELATED JOBS

BENEFITS

BENEFITS

(-) Impact

Promoted Seasonality

SEMI-SKILLED AND LOW PAID JOBS

DEVELOPMENT OF LOCAL ECONOMY

EMPLOYMENT OPPORTUNITIES

Direct

Indirect

CONSERVATION AND PROTECTION MEASURES

Slide13: Economic Module of Kerwa.
The production and consumption model depicted above is important from the ecological and social perspectives. It is important for the planners and conservationists to have a deep analysis of this sub-module before implementation of tourism development in the area. However, residents pleaded for strong public support and wider people participation for a healthy growth of tourism which are the major points that have to take into the consideration before implementing any new project or policies for the area in step to the development of tourism or ecotourism in the area.

The result of the survey indicates that the locals are aware about the purpose of the visit to the area by the visitors and thus, they are also aware of the tourism activities going on in the area. On the perceived impacts caused by the tourism or that might occur in near future on the physical environment, there are mixed opinions of the respondents on issues of ecology, ecological imbalance, damage to flora and fauna. Majority of opinions pertain to solid waste accumulation and littering, loss of access during peak seasons and noise generations (during peak seasons). Thus, many of them have expressed strongly that people’s participation along with the government’s interventions for short and long term planning can help to control the situation in near future. It is very significant that they consider people’s participation important for controlling any kind of externalities in near future. Beside this, regarding positive impacts of tourism on the environment, they perceive and mention that the scenic beauty and cleanliness of the area have improved due to the tourism. The study clearly recommends taking measures for the conservation and environmental programs along with the people’s participation which should be implemented in the area so as to avoid the negative impacts that might occur in near future as perceived by the residents.

Regarding the socio-cultural impacts, it is well identified that tourism effects have shown marked changes in the socio-cultural environment of the destination communities, particularly when the guests and the hosts have contrasting socio-economic backgrounds (Singh, 1989). Residents perceive
that there is strong disliking for the visitors’ behaviour to spread dirt and waste, rash driving and careless drinking etc; this behaviour has also promoted the crime and alcoholism in the area. On the other hand, positive attributes like preservation of cultural monuments and cultural assets, rank low as such places of interest are still not popular for the tourists. Overall results on the socio-cultural impacts reflect that the major impacts like transformation of traditional occupational patterns (like farming etc), elements of westernization in the life style and losing of confidence and cultural identity etc, rank very low in order. The perception of residents that tourism is not disruptive to their traditional way of life or culture, can probably be explained on the basis of the fact that the tourists’ stay at the destination is usually for the day only, and their time is almost completely absorbed in the activities confined to the site. The residents have strongly perceived that tourism in the area has promoted the seasonal dependency of most of the residents, who otherwise are labourers and agriculturists, and they are dependent on tourism for additional income, especially in the peak seasons. The jobs created so far, are semi-skilled and low paid jobs and thus very few residents (15.7 %) are benefiting from the tourism activities in the area. The tourist-spending calculations show that the benefits can be translated into the economic terms by estimating the actual amount of spending by the visitors in the local area. This is the general approach used in the impact assessment of tourism to estimate the economic impacts of tourism. It has been found from the direct survey that a typical Indian visitor spends Rs. 191.42 per visit. The Total amount being spent by the Indian visitors (direct or indirect), as estimated from the survey, is more than Rupees 10.6 crores annually. This is a major contribution of tourism in the area in economic terms.

**Effects of Tourism on the Locals**

Tourism has major impact on the local communities, mostly at the places like Salkanpur and Bhojpur, where visitors’ influx is very high, mainly in peak seasons. The key findings from the study are described below under different
categories, based on the results of their perceptions: (+ indicates positive impact; * indicates negative impact)

As per the locals’ perceptions, they perceive that tourism has positively contributed as Tourism has

- enhanced the scenic beauty of the area (Score = 1048) +
- brought in ecological awareness (Score = 577) +
- Encouraged conservation measures. (Score = 744) +

2. Negative impact on the physical environment.
- Solid waste accumulation and littering (Score= 449) *
- Overcrowding and site congestion. (specially during peak tourists’ seasons) (Score = 319) *
- Noise generation and pollution (Score = 318)*
- Damage due to construction activities (Score = 260)*
- Road degradation and vehicular traffic (Score = 250) *
- Excessive pressure on energy resources (Score = 205) *

3. Socio-Cultural Impacts
- Frustration among locals due to low-paid and semi-skilled jobs (Score = 904) *
- Disturbing peace of local people and sufferance to locals due to overcrowding (Score = 865) *
- Preserving local art and culture (Score = 801) +
- Promoting crime and moral laxity in the area like eve-teasing, begging, thefts, drinking habits, etc., (Score = 724) *
- Transforming traditional occupation pattern (Score = 654)*/+ 

4. Economic Impact
- Promoting seasonal dependency (Score = 823) *
- Creating low jobs for the locals (Score = 823) *
• Generating additional source of income along with the main occupation (Score = 700) +
• Creating more jobs in the area (Score = 680) +
• Inflation in prices (Score = 617) *

B. Contribution of Tourism in Environmental Modifications.

Tourism in the area at present is not showing any undesirable externalities of the serious concern that cannot be controlled. If proper management practices and staff are employed at these places, the negative impacts enunciated above can be mitigated. Another important issue to be considered is that the construction of facilities and the infrastructure supporting the tourism should be as per the regulations and should enhance the aesthetic values of the place. The establishment infrastructures at the destinations should be architecturally designed based on the principles of ecological infrastructure development, so that the visitors’ experience and satisfaction level can be enhanced without causing any externalities on the environment (culturally, ecologically or aesthetically). As per the 1991 census, the land use pattern at Salkanpur, shows 49.99% land as un-irrigated, 35.28% forest-land, 4.34 % unused land and 7.33 % irrigated land. Although nothing concrete could be concluded from the data, as the data for the land use pattern for the next decade (2001) could not be available from the census office, nevertheless, from the data, it can be suggested that as most of the land is unirrigated and unused land, therefore these lands can be used for tourism activities like creation of specialized attractions for the visitors like camping, interpretation centre and promotion of different tourism related activities in the area. This not only provides more opportunities for the visitors but also enhances the visitors’ experiences and employment opportunities for the locals. This might also be able to mitigate the seasonal dependency syndrome in the area due to tourism. The similar patterns are also found for the land use planning data of different areas suggesting that the most of the lands are un-irrigated and unused.
Table 8.1: Land Use patterns in and around Salkanpur tourism destination areas

<table>
<thead>
<tr>
<th>Village area (ha)</th>
<th>Forest area (ha)</th>
<th>Irrigated by source (ha)</th>
<th>Un-irrigated (ha)</th>
<th>Culturable Waste (including gauchar &amp; grooves (ha))</th>
<th>Area not available for cultivation (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>632.17</td>
<td>223.04</td>
<td>WE (38.85), TK (7.44)</td>
<td>316.07</td>
<td>19.35</td>
<td>27.42</td>
</tr>
<tr>
<td></td>
<td>(35.28)</td>
<td>(7.33)</td>
<td>(49.99)</td>
<td>(3.06)</td>
<td>(4.34)</td>
</tr>
</tbody>
</table>

For villages surveyed near around the Salkanpur:

<table>
<thead>
<tr>
<th>Area</th>
<th>Village area (ha)</th>
<th>Forest area (ha)</th>
<th>Irrigated by source (ha)</th>
<th>Un-irrigated (ha)</th>
<th>Culturable Waste (including gauchar &amp; grooves (ha))</th>
<th>Area not available for cultivation (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>3100.34</td>
<td>0.00</td>
<td>297.36</td>
<td>2403.06</td>
<td>224.92</td>
<td>175</td>
</tr>
<tr>
<td>Area</td>
<td>(0)</td>
<td>(9.59)</td>
<td>(77.51)</td>
<td>(7.25)</td>
<td>(5.65)</td>
<td></td>
</tr>
</tbody>
</table>

(Figures in bracket indicate the percentage).

**RECOMMENDATIONS**

The study is of great significance, as it encompasses the significant contemporary issues pertaining to the environmental impacts of tourism in the study area. The areas, Kerwa, Salkanpur, Bhembaitka have adequate potential for small-scale, local level tourism development and with appropriate and organized planning and implementation, conservation and economic development of the area is possible, and thus tourism can be used as a developmental tool for the area. The study also draws attention to the need for the implementation of conservation and environmental awareness programs, because the ecological imbalance and other impacts perceived by the residents, may be a serious issue in near future as the tourism in the area is likely to increase in the near future. The environmental conservation and awareness programmes should be implemented in the area for the locals because they are the key players in the conservation and sustainable use of the resources available in the area, and since the majority of the residents have the minimal level of education (with 49.6% residents having school level and 12.5% graduation standard), it becomes more important to undertake regular awareness programs among the resident communities. On the other side, it is also significant that residents realize that people’s participation along with the government’s action is important for controlling any kind of externalities in
near future. As outlined by D’ Amore (1983), few important recommendations emerging from the study are mentioned below:

- Residents of the destination areas must be demonstrated the socio-economic significance of the sector through promotional campaigns.
- Tourism planning should be based on overall development goals and priorities identified by the residents.
- Involvement of local residents in the development of tourism is necessary so that their traditions and lifestyles are restored and respected.
- Opportunities should be provided for broad-based community participation in tourism events and activities.
- Mitigation measures should be employed to resolve the problems in advance before any further increase takes place in tourism activities.

In addition to these guidelines, there is need for capacity building that will provide them opportunities for starting business at small-scale level. The youth of villages in particular are keen to be a part of tourism venture as active participants. They can play an important role as change agents.

In addition to above mentioned recommendations, following points are also important to mitigate any externality in the near future:

- Ban or control of the entry of Polythenes and other wastes in the protected area.
- Using efficient mechanism for treating the solid wastes emanating from the protected area.
- Maintenance of the visitors influx record and efficient implications of the visitor management practices at the site specially at the Bhojpur, Salkanpur where the management practices are not adequate as per to the flow of visitors.
- Proper signboards and the interpretation materials and sinages at the visiting places in the sanctuary.
- Improvement of the infrastructure as per the local requirements and the sustainable environmental needs.
Dev

The wildlife sanctuary has two highways passing through the forest area. The use of pressure horns and the unnecessary blowing of horns and vehicular traffic at the highway should be checked. The signboards indicating the sanctuary area, and signals for regulating use of horns and noises should be indicated at the specific distances along the roadsides.

Visitor’s recreation points (at Delawari and Ratapani Dam) should be properly equipped with proper signboards. There should also be proper displays of educational and awareness generation materials.

Visitors should be strictly prohibited from using loud music and speakers during their stay in the sanctuary and visits to the sites like Ginnorgarh fort, POW Camp, waterfall etc, which are situated in the deep forest of the sanctuary.

The visitors groups should be accompanied by forest department officials and the trained guides, especially during their visits to the places inside the forests.

**Policy Implications**

The study has identified various impacts and corresponding mitigation measures that should be taken in advance by the managers and planners for the effective tourism management in the area. From the economics point of view, the positive economic aspects of tourism in the destination site, are the income generation and addition source of income along with the traditional occupations for the local residents within the destination sites. Also the expenditures at the sites during the local tourism trips add to the economy of the local people. In fact the annual tourists’ flow to the sites can be increased two folds or more by opening and developing new tourism spots / activities at the destinations complemented and supplemented by basic infrastructure that are at present a bottleneck for the tourism development at these sites. The results indicate that the in coming years the tourists traffic would increase phenomenally, along with corresponding increase in demand of the services, as the demand for the services of tourism is inelastic. This is supported by the fact that the majority (82.2%) of the tourists want to revisit the place again. At
the same time, the revenue and the local benefits can be increased manifolds by (i) developing more tourist spots, (ii) expanding the tourist seasons thus by increasing the annual tourist inflow keeping the same capacity norms for the State in future, (iii) capacity building of the stakeholders and, (iv) providing more opportunities to the locals in collaboration and coordination with different agencies for the sustainable tourism in the area.

In order to derive the enormous potential economic gains of tourism, the main thrust areas of tourism would be as follows:

- Development of viable tourism circuits for middle class tourists with tourist lodges and other transport facilities. Each circuit would cover several destination sites and areas of tourism attractions.
- Development of infrastructure and other facilities for increasing the visitors experience and blending of tourism characteristics to provide unique experience to the tourists.
- Promotion of adventure tourism with adequate exploratory and training infrastructure.
- High-end tourism for the designated foreign tourists. Accommodation facilities and activities as per the requirements and needs of the foreign tourists, so as to attract larger number of diversified foreign tourists.
- Focus on Conservation Education, that can help reduce “avoidable negative impacts” such as littering, ad hoc campfires, inappropriate disposal of waste and damage to the vegetation.
- Special emphasis should be given to the management of solid waste and litter caused by the visitors’ activities at the tourism destination sites.

The study shows that appropriate policies and guidelines for sustainable tourism in and around Bhopal, Madhya Pradesh can provide significant revenue and employment, and thus contribute positively to the overall development of the State. The study also suggests the need for the judicious planning and implementation of tourism, adopting the principles of long term
sustainability, both culturally and ecologically, or in other words implementing the vision of Ecotourism. The lessons learnt from these destinations can be implemented at different destination sites during the implementation of tourism projects and development.

**Threats and Policies**

The development of tourism can no doubt change the whole economy of the State, and at the same time it can provide strong incentives for the preservation of natural resources like forests, wildlife, promoting the concept Ecotourism. However, the development of nature-based tourism is not without problems (Mitra and Chattopadhyay, 2003). For instance, it might lead to the destruction or pressure on the natural resources, if not properly managed. Since tourism in Madhya Pradesh, especially in and around the low developed destination sites, is in its infancy stage of development with lot of potential, it is necessary to identify the site-specific potential negative impacts of tourism on environmental parameters through experts, extensive standard survey methods and extensive field visits and observation involving the local communities. In all the findings, the solid waste accumulation, littering, air and noise pollution have been identified as significant potential negative impacts followed by the deforestation and damage to the biodiversity (flora and fauna). The problem of solid waste disposal and littering is an important issue that has emerged in the present research work as well from other similar studies on environmental impacts of tourism. For example, the problem of waste disposal at the tourism destinations is a recognized environmental problem in Sikkim (Rai and Sundriyal, 1997). Similarly, a study in Nepal has shown showed that Nepal is also suffering from adverse environmental impacts of tourism mostly associated with solid waste disposal compounded by depletion of natural resources (Brown et al., 1997). Therefore, the site-specific problems identified and highlighted in the present study are important from the future management perspectives and the recommendations emanating from the study for the mitigation of impacts may be emphasized in the guidelines for the planning and implementation of new tourism development program.
All these suggestions made can help the policy makers to achieve sustainable tourism in the State to achieve sustainable tourism by ensuring a balance between the tourism activities and the capacity of the resource system to support these activities without degradation or depletion of resources on which the tourism depends (Mitra and Chattopadhyay, 2003), especially in the case of protected areas.

STAKEHOLDERS AND THEIR ROLES AND RESPONSIBILITIES

State government, Forest Department (FD), public-private sector organizations, local communities and NGOs are the main stakeholders in tourism, and the destination development programme. Their roles, responsibilities and obligations should be clearly identified and delineated for the success of the programme. The FD should identify the forestland for the Public private partnership activities timely and fix reasonable time limits for different activities for the approval of REGULATED TOURISM.

In order to make tourism really beneficial from the regional development, it is essential to regulate tourism (Singh, 1984). However, tourists cannot be prevented from visiting any area unless it is restricted for strategic purposes; nevertheless, the inflow of tourists can be regulated by offering incentives or creating diversifications. The following basic principles should guide the regulation of tourism:
1. The nature and the number of tourists visiting regions should be compatible and commensurate with the absorbing (carrying) capacity of the region.
2. The temporal or spatial flow or spread of tourists should be such as to avoid over concentration at a particular time and place.
3. Threshold level, not the maximum level, amenities should be provided on the tourists-flow routes.

Environmental policies fall in three basic categories:
- Those that result in cost savings.
• Those that appeal to the consumers and make products more attractive
• Those that promote sustainability but which have no commercial advantage.

The government and tourism companies should concentrate their efforts in these policy areas. Also the tourism corporations should concentrate over the areas of local interest having great rush of visitors, which are underestimated by such agencies. Close cooperation is required and should be stimulated between the public and private sectors. Voluntary action is preferable to regulation, but some degree of regulations is necessary in areas such as land-use, waste management etc. Code of conduct at industry level is valuable.

There should be mechanism for quantitative measurement of progress towards environmental goals. Destination auditing and certification criteria need to be more widely applied. The controlled expansion of the infrastructure is critical to the achievement of sustainable tourism. Environmental taxes, where applied, should be fair and non-discriminatory. These should be carefully envisaged to minimize their impacts on economic development and revenues must be allocated to Travel and Tourism associated environment improvement programmes. Environmental education and training programs should be proliferated, particularly in schools, for future hotel and tourism staff.

One of the positive economic aspects of tourism is the generation of revenue and employment in the area, as tourism is highly labour intensive and hence, there is ample scope for gainful employment. It can provide a vast spectrum of employment starting from highly trained managers to unskilled construction workers. The important types of employment that can be generated by tourism are as follows: (Mitra & Chattopadhyay, 2003)

a) Direct employment resulting from visitors’ expenditure in tourists’ places like hotels, restaurants, transport agencies, travel agencies etc.
b) Indirect employment created through building of hotels, tourists’ lodges etc., and construction and up-gradation of transportation, sanitation, water supply etc, particularly in construction and services sector.
c) Additional employment opportunities can be created in the agricultural sector through the increasing demand for local food, vegetables, local products, etc.

On the basis of enormous potential economic gains as estimated from the research work in the context of Madhya Pradesh along with enormous potential impacts for environment and biodiversity conservation, the following policies, as well as, action plan are suggested for maintaining sustainable tourism:

i) Formation of a Sustainable Tourism / Ecotourism Development Cell, which consists of integrated coordination of different departments like Forest department, Tourism Department, other line Departments, NGOs, Scientists, Environmentalists etc., for formulating policies and strategies for overall development of tourism.

ii) Preparation of tourism master plan and identification of circuits and more tourism spots and above all linking of all the destination sites for greater and easy access and more interpretation for the visitors. Compatibility and viability of tourism activities should be determined in advance and the appropriate mitigation measures should be laid down. This is specially important as it is mentioned in earlier paragraphs that the tourism in the state is in the infancy stage but the tourism in the coming days is bound to grow and expand to maximum extent and thus more environment will be exposed for the visitors. Hence, viable measures should be adopted at this stage in order to mitigate any ambiguity in future to the environment.

iii) Construction of well-planned and eco-friendly infrastructure development and construction with maximum use of local products and the labour.

iv) The government should encourage adventure tourism by building up necessary infrastructure for angling, water sports, nature trails, etc., at the various destination sites under the study, specially at potential places like Kerwa, Ratapani, Salkanpur, Sanchi which carry enormous potential for these activities. Also this will attract more visitors to these places and
visitors to the places, specially at the peak seasons, will get opportunity for more recreation, which will also support the management of the area.

v) The tourism department should liaise with rural development and industries departments and set up a number of selling shops / outlets for sale of handicrafts, local products to tourists at tourism spots.

vi) The participation of local people should be encouraged.

Thus, the study shows that suitable policies and guidelines for sustainable tourism can make Madhya Pradesh as one of the most ideal tourist friendly State. Tourism is a social form of industrialization with certain advantages and disadvantages and it is only through the research the advantages can be grasped and steps taken to minimize the impacts of the disadvantages. Here planning becomes very important to benefit the developing societies where tourism is a new phenomenon. Rapid and unregulated development of tourism can bring about environmental deterioration that may eventually change the intrinsic characteristics of the place. Therefore, ‘planning for tourism has to be environment-oriented’. Any measure affecting the ecology should be well considered, to achieve the ultimate goal of sustainable development.