

## **NEGATIVE IMPACTS OF TOURISM AND PLANNING ENVIRONMENTAL SUSTAINABILITY IN HILL RURAL AREAS OF UTTARAKHAND**

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### **ABSTRACT**

Uttarakhand is the state which is rich with natural attraction and has the capacity to enthrall tourists with its green natural environment. Tourism occupies a significant position in the economy of the state and thrives on the captivating natural attractions it possesses. The hill rural areas of the state have been the major tourist's pullers not only from all over the country but also from the different parts of the world. In past few decades the tourism has significantly started to lay a negative impact on not only the green environment but also on the social and cultural environment it carries leading to their degradation. Hill rural areas due to their poor distant geographical locations, poor planning, excess pressure on carrying capacity and lack of awareness among the inhabitants has lead to major negative impact on them. The need of the hour is to plan the environment sustainability in these areas to protect the endangered natural environment along with the social and cultural heritage simultaneously creating economic independence for its inhabitants.

**Keywords :-** *Environment, Sustainability, Tourism, Alternate Energy Sources.*

### **Introduction**

Tourism occupies an important place in the economy of Uttarakhand. Together with agriculture, horticulture, forestry and hydel power, tourism is a major economic activity in the state for creating income and employment opportunities. Economy of the Uttarakhand state is mainly based on agriculture. Agriculture of the rural inhabitants is the primary source (more than 90%) of their livelihood. Animal grazing and rearing of cattle and sheep accompanied by trans-humane are other occupations. Money order economy has laid a hold in this region. Other occupations in these distant regions constitutes: farm labour and daily wage labour in government projects, government services, artisans, weavers, etc. Age old well established norms and traditions of the inhabitants of these rural and backward regions are now changing which has a vast effect on the economic pattern of these regions. The tribal system is facing challenge in the light of modernization, development and evolution of new values and life style

gradually. In the wake of these developments tourism industry is continuously prospering as a major income and employment generator in these rural regions of the state.

Millions of tourists every year visit the different regions of the Himalayas. Tourism is a major source of income for the local people. It has created a vast demand of infrastructure and prospects have opened out in the fields of transport, accommodation, food and entertainment. Tourism and allied activities, directly or indirectly provides the income source to large population of the state. They may be drivers, hoteliers, guides, escorts, shopkeepers or porters at mountain resorts. Religious, nature, wildlife and adventure tourism are the major tourism activities in the region which are mainly delivered in the rural and distinct areas on the state. These tourism activities attract and enthrall thousands of tourists every year, not only from different parts of the country but also from all over the world. Tourism has stimulated the development of a variety of allied infrastructure and facilities, such as hotels, lodges and camps, resorts in the rural regions of the state. Through its backward linkages, wholesale and retail businesses have also been established, to offer various goods to the tourist industry. Metalled roads and other communication facilities have also been developed partly to facilitate tourism development. Tourism in these regions also provides employment opportunities to local communities and it is a significant source of earning for local community of the region.

### **The Problem**

Tourism in these hill rural regions depends for its very existence on quality natural environments as it is equally dependent on human environments, resources and cultures. For a long time tourism was seen as a 'soft' activity, different from other forms of development, inherently conservatory given that its sustainability relied on the preservation of the natural resource base and the local cultures. However it is now recognized that tourism is an industry just like any other, an industry which assets upon which they depend. "Tourism kills tourism" is acknowledged as widespread phenomenon. The most important direct effect that the tourism industry has brought on the environment of these hill rural regions is increased pressure on the carrying capacity of the ecosystem in each tourist locality. Every year the huge yearly influx of tourists far exceeds the carrying capacity of these rural regions hence forth negatively affecting the rich environment of these regions. The adverse impact of tourism on the environment relates to pressure on natural resources, harm to wildlife and habitats, creation of pollution and waste and related social and cultural pressures. Apart from obvious and visible effects on the economy and the physical environment, tourism has contributed to negative social and

cultural changes in host societies, including changes in value systems, traditional lifestyles, family relationships, individual behaviour or community structure. This has led to the dilution and deterioration of the rich traditional and cultural heritage of these rural regions.

### **Impacts of Tourism**

Despite its positive socio-economic impacts, the industry is beginning to have negative environmental impacts in these hill rural areas such as the destruction of the area's ecology through different forms of pollution and poor waste management, along with diluting the rich cultural heritage of these regions thereafter negatively affecting the culture, economic and other aspects of the region. Here is the analysis of the various impacts of the tourism on these regions of the state:

### **Economic Impact**

Although tourism has brought benefits such as community revenue generation, employment opportunities, higher government revenues and the transformation of agriculture into a modern service industry, it has been a two-edged sword which has damaged many indigenous societies. The economic benefits have brought prosperity mainly to urban communities and entrepreneurs. The rate of economic return to rural communities has been low. Here are some of the negative economic impacts of tourism which were carved out in the study:

- (i) Tourism infrastructure facilities like resorts, hotels and tour and travel companies belong mainly to investors from urban areas; who take most of the profits.
- (ii) Daily necessities commodities like food, clothing etc used by tourists are normally imported from outside which can be produced locally.
- (iii) Although employment is given to local labour but it is only at a low level which signifies low job retention ratio, meager salary and undue exploitation by the senior staff. Thus employment opportunities for local people are very limited and not adequate if considered for long period of time.
- (iv) It has been noticed in the study that over the past several years, rural areas have not benefited much from the multiplier effect on the development of local handicrafts, or agriculture. This undesirable situation is caused by the weak linkage between tourism and local production.

### **Socio-cultural Impact**

Income from tourism is much higher than what rural people can earn from

agriculture and allied activities therefore tourism has been accepted willingly in many rural areas of the region in spite of its negative effects. The poor tourism planning in these regions has resulted in invasion of indifferent visitors with different values, disrupting rural culture which is followed by a decline in participation in rural traditional and cultural practices in these rural regions. Practice of developing traditional houses is rapidly declining and these houses are now being replaced by modern buildings, as the local culture is eroded. The agriculture which was the basis of traditional life is replaced by, and becomes secondary to, tourism. The higher standards of living in urban tourist destinations have caused emigration from nearby rural neighbors, resulting in changes in the demographic structure and possible culture shock.

### **Ecological Concern and tourism impact**

One of the most essential things for tourism to be successful in a particular place is the quality of the environment, both natural and man-made. However tourism involves many activities that have a negative effect on the environment. These occur when the level of usage is bigger than the amount of caring for the environment. Uncontrolled tourism is threatening many natural areas not only in these regions but also all around the world. It can put great pressure on an area, and lead to negative environmental impacts on air and water quality, vegetation, soil, wildlife, and many other things. Negative impacts from tourism occur when the level of visitor use is greater than the environment's ability to cope with this use within the acceptable limits of change. Uncontrolled conventional tourism poses potential threats to many natural areas around the world. It can put enormous pressure on an area and lead to impacts such as soil erosion, increased pollution, discharges into the sea, natural habitat loss, increased pressure on endangered species and heightened vulnerability to forest fires. It often puts a strain on water resources, and it can force local populations to compete for the use of critical resources.

In areas with high concentrations of tourist activities and appealing natural attractions in these regions, waste disposal is a serious problem and improper disposal has acted as a major despoiler of the natural environment - rivers, scenic areas, forests and roadsides. Adventure activities are prominent in hill rural regions of Uttarakhand, in these mountain areas trekking tourists generate a great deal of waste. Tourists on expedition leave behind their garbage, oxygen cylinders and even camping equipment. Further the twigs of trees are broken down to facilitate campfire and litters of bottles, cans and packs trail the entire trekking route. Such practices by tourists degrade the

environment with all the detritus typical of the developed world, in remote areas that have few garbage collection or disposal facilities. Tourists using the same trail over and over again trample the vegetation and soil, eventually causing damage that can lead to loss of biodiversity and other impacts. Such damage can be even become more extensive when visitors frequently stray off established trails. Some tourism activities such as trekking and camping have caused environmental pollution from unhygienic disposal of human waste, discharge of sewerage effluent into water sources, and littering in the region. Without strict regulations on appropriate land use, high-rise buildings such as tourist hotels, and the overwhelming number of tourists, have resulted in congestion and spoiled much of the local scenery. Habitat can be degraded by tourism leisure activities. For example, wildlife viewing brings about stress for the animals and alters their natural behavior when tourists come too close. Wildlife watching activities have a degrading effect on habitat as they often are accompanied by the noise and commotion created by tourists as they chase wild animals in their trucks.

### **Sustainability**

Tourism plays an important role in economic development at community, national, regional and global levels by using natural resources and environments as key physical inputs. In making use of the environment and natural resources, the negative impacts have to be minimized to assure sustainable use, as well as generate enough tourism revenue to reinvest a certain portion of funds. The reinvestment should aim at enhancing the quality of the resources and build the management capacity at various levels. The adverse impact of tourism on the environment relates to pressure on natural resources, harm to wildlife and habitats, creation of pollution and waste and related social and cultural pressures. There is a complex relationship between tourism and the environment, such that tourism has inevitable and important environmental impacts, including: resource use, consumption, waste, pollution and effects from tourism-related transport. Sustainability, in a broad sense, is the capacity to endure. In ecology the word describes how biological systems remain diverse and productive over time. For humans it is the potential for long-term improvements in wellbeing, which in turn depend on the wellbeing of the natural world and the responsible use of natural resources. "Sustainable tourism" is often equated with nature or eco-tourism; but sustainable tourism development means more than has been characterized by rapid, short-term ventures which have often damaged those very protecting the natural environment - it means proper consideration of host peoples, communities, cultures, customs, lifestyles, and social and economic

systems. It is tourism that truly benefits those who are on the receiving end, and that does not exploit and degrade the environment in which they live and from which they must earn a living after the last tourist has flown back home. It is tourism that enhances the material life of local communities, without causing a loss of traditional employment systems, acculturation or social disruption.

The study suggests that following target groups should actively be encouraged and to work in the certain aspects to achieve the aim of eco tourism in the region:

**Locals:**

Eco-tourism should be community based, allowing local people to take responsibility for local developments, gaining the benefits of tourism while protecting their culture and environment. Because the community takes the lead in planning and management, it can use its own resources and set its own regulations. It is often argued that in the long-term eco-tourism can help the community's sustainable development. In India especially in rural areas, waste is a serious threat to the public health concern and cleanliness being further polluting the rich natural environment for which the rural areas are known.. Though the form of waste (both solid and liquid) generated in rural areas is predominately organic and biodegradable yet it is becoming a major problem to the overall sustainability of the ecological balance. The waste is generally generated at household or at community level for example at market and common streets. In order to properly manage this waste with minimum effort and cost, focus must be on management at household level. The waste which cannot be managed at household level should be handled at community level. To achieve the same it is very important to bring the local community participation in action for which adequate training regarding following aspects should be given to them:

- (i) Community participation for bringing environmental sustainability and skill enhancement
- (ii) Training should be provided for capacity building of the rural poor, training programmes should include construction, biogas operation and slurry management which are very fruitful for energy conservation, smoke reduction, household cleaning and sanitation.
- (iii) Awareness generation activities for clean drinking water, household and public sanitation, cleaning of streets, use of waste pits in public places and household areas through orientation and informal classes

- (iv) Training and orientation programmes towards effective waste management techniques
- (v) Support in eco-tourism marketing
- (vi) Encouragement to the development of local handicrafts and art materials
- (vii) Awareness programmes for bringing environmental awareness
- (viii) Development of eco lodges and home based accommodation facilities
- (ix) Improving one or two room out of their houses for tourist stay as guest rooms,
- (x) Enhancing dairy products and availability of milk, curd and cheese in abundance.
- (xi) Strengthen participation and decision-making in tourism of locals, especially of marginal groups such as women
- (xii) Development of bio-villages and eco-villages

Workshops, training sessions and local community meeting should be held in these areas to train and motivate the locals towards environmental sustainability.

**Tourists:**

Tourists should be trained through training sessions, workshops and meetings towards following aspects:

- (i) To get the tourist aware of the security speculations of the area.
- (ii) Strictly follow the rules of forest conservation.
- (iii) Prohibit use of alcohol inside the forest.
- (iv) Make tourist guide service compulsory
- (v) Strictly ban plastic but make sure to provide alternatives
- (vi) Don't litter anything in to forest and river
- (vii) To follow document code of conduct
- (viii) Avoid materials causing environmental pollution
- (ix) Use of waste bins
- (x) No use of bottled water within the forest
- (xi) Strictly avoid degradation of bio- reserve
- (xii) Ban smoking in natural habitat
- (xiii) Increasing tourists awareness towards environmental sustainability
- (xiv) Enhance education and awareness of environment and culture among host and

visitors to provide quality experiences for both

- (xv) To follow environmental document code of conduct
- (xvi) Cultivate respect for local culture and traditions
- (xvii) Have basic knowledge about waste management

### **Respect for local customs**

Sustainability does not end only at preserving and sustaining the ecology but also behold in it the preservation and protection of the culture and traditions for which many destinations in these Himalayan rural regions are famous. Tourists should be encouraged for respecting the local culture and traditions for which following aspects should be communicated to them:

- (i) Tourists must have proper dressing
- (ii) If having bath in the river, tourists should be dressed properly
- (iii) Most importantly as an introduction, the tourists should be made aware of the local culture and values
- (iv) They should never intercept tribal settlements
- (v) Preparation of write ups that should be distributed about regions bio treasure, culture and things of such sort
- (vi) Restrict tourists in areas used by the localities for their routines
- (vii) Photography should be allowed only by permission
- (viii) Commercialization of traditions and rituals should not be allowed.

### **Service providers:**

Service providers includes the individuals or groups which are engaged in the businesses like of accommodation, catering, tour packaging, adventure sports packaging etc. These service providers should be adequately trained for carrying out their business activities in environmental sustainable ways. A training course could be initially delivered to some tourism professionals of every region, who in turn would be expected to act as "trainers" of ecotourism service providers. Training should be provided to the service providers regarding the following aspects:

- (i) Meaning and Importance of environment sustainability
- (ii) Ways in which the environment gets polluted by their activities
- (iii) Meaning of solid and Liquid waste

- (iv) Composting as Technology option for Treatment of Biodegradable Waste
- (v) Various steps for effective waste management
- (vi) Methods of recycling and reuse of waste materials
- (vii) Construction, operation and management techniques for eco lodges
- (viii) Raise employee awareness of environment, health, safety and sustainability
- (ix) Rainwater harvesting
- (x) Eco guides
- (xi) Eco friendly tourist's packages
- (xii) Development of campsites
- (xiii) Toilets and bath rooms at camping sites constructed and developed in conformity to local environment to be income generating sources.
- (xiv) Involve and train local youth in activities like cooking, culinary and mountain guides etc.
- (xv) Use of alternate sources of energy
- (xvi) Maintain hygienic and clean environment in their respective establishments
- (xvii) Support in sustainable marketing approaches
- (xviii) Move towards Green hospitality

Green hospitality is business that serves people while paying attention to its environmental impact, focusing on being more environmentally friendly. Hospitality is defined as the cordial and generous reception of guests. Generous often means providing more than the guest would use or need -- as in the way of food, amenities, climate control, newspapers, etc. Generous should mean the availability of all that your guests can use or need without wasting resources.

Examples of excessive consummation, and alternatives, include having the lights on all the time (which is unavoidable for safety and security reasons), but efficient lighting can be used. Changing sheets daily (wasting water, electricity soap and manpower); when less frequent changes would suffice. Serving heaping amounts of food (much of which gets thrown away rather than composted or given to farmers), when reduced portions will satisfy guests. Providing individual toiletries (wasting the product and packaging), while offering them from refillable dispensers conserves. Using foam to-go containers (adding unnecessarily to landfills), when recyclable or compostable containers

are available. Other hospitality businesses can cue from these ideas to see how their consumption is contributing to the waste stream.

Green hospitality is important as Land, water, and energy are all of limited supply. Land is part of the delicate balance of our planet; we can't continue dumping on it or destroying it without suffering unknown ramifications. Hospitality industry can do the following things for conserving and lighten their step on the environment. Develop and implement programs that will reduce consumption, thereby saving money. Educate employees and guests. Develop and implement a program to sell or donate unwanted furnishings, fixtures, and equipment, keeping them out of the landfills and putting them in the hands of businesses and people who will appreciate them.

### **Eco-lodge construction**

Hill rural regions of Uttarakhand are rich with natural attractions and cultural and religious wealth which is enough to engulf any tourists in its enchanting environment. Tourist's arrival percentage in these regions is increasing constantly which is a good sign for the tourism industry for the state. But the major concern that has enhanced with the increased number of tourist's arrival is the huge pressure being created by it on the fragile environment and the local community. Many accommodation and catering units are being added in these regions which do create a negative effect on the environment. These units rarely care about the environment even though being totally dependent on it. Tourists visiting this region are least aware about the un-environmental activities they conduct in the region to harm the environment. The impact of which has been noticed on the unhygienic and surrounding being created near the accommodation and catering units, further huge garbage collection can be seen in around these units. The tourists coming to these units follow the same pattern and harm the natural surroundings with improper disposal of their waste materials of which higher percentage is of non-degradable waste. The tourists visiting the natural habitats litter all around heaps of bottles and food leftovers. The solid waste material left by the tourists is also proving detrimental for the vegetation in the area and also polluting the water resources. The pollutants are also contaminating the air, which is having an adverse effect on the health of residents. This process will lay a detrimental impact on the environment of these rural regions.

To start the process of sustainable tourism development in the region it is important to initiate the environment sustaining activities right from these regions itself. As discussed accommodation and catering units in these regions have played a huge

part in harming the environment so it is important to start the process from them as these units nevertheless are very important for sustaining and pulling more tourists in the region. The way out initially would be to develop eco lodges which will not only help in increasing the accommodation units in the region but will also have a positive impact on the surrounding environment. Further these eco lodges through their environment sustaining effort will aware and motivate tourists and other units in the region to follow the environment sustainable pattern.

### **Eco-lodge Operations and Management**

There are two basic ways in which eco lodges can contribute to conservation and community development: one passive and one active. The mere presence of accommodations in or near natural settings can provide a crucial component for the growth of nature based tourism and increase incentives and resources for conserving biodiversity and promoting responsible development in an area. At the same time, eco-lodges can also make proactive direct financial or other types of contributions, such as providing nature guides, using low-impact construction and renewable energy, creating private reserves or developing community infrastructure.

Eco lodge Operating and management methodology that should be adopted for these hill rural regions should engulf in it the following important criteria's:

- (i) Eco-lodge has to be at least a thousand metres from a village so as not to interfere with village life.
- (ii) No air conditioning system, Design for cross ventilation should be there.
- (iii) As the customers want to be completely surrounded by nature there should be design to merge with the landscape; solar energy for light and hot water.
- (iv) Utilization of local manpower and local businesses
- (v) Preservation of native vegetation in their gardens
- (vi) Government subsidized financial assistance
- (vii) Active local community involvement and assistance
- (viii) Adequate training for persons carrying eco-lodges
- (ix) Minimum impact on natural environment and cultural surroundings
- (x) Help generate environment friendly attitude among the locals and tourists
- (xi) Adequate marketing strategies for its promotion
- (xii) Utilization of "green" technologies that provide sustainable means of water

acquisition, safe disposal of solid waste and sewage and use of renewable energy sources.

- (xiii) Continuously aim at consumer satisfaction

### **Managing Training, workshops and meetings**

As discussed these training, workshops and meetings are very important to encourage locals, service providers and tourists towards environmental sustainability. Following groups, individuals and organizations can help in conductance and management of these training, workshops and meetings:

- (i) Uttarakhand Tourism Development Board
- (ii) Uttarakhand Environmental Protection and Pollution control Board
- (iii) Local government
- (iv) NGO's
- (v) Self help groups (to be formed by locals)

### **Alternate Energy Generation and Conservation**

While energy surrounds us in all aspects of life, the ability to harness it and use it for constructive ends as economically as possible is the challenge before mankind. Alternative energy refers to energy sources which are not based on the burning of fossil fuels or the splitting of atoms. Energy provides services for human life- heat for cooking, warmth, manufacturing and power for transport and mechanical work. The primary sources of energy are

- (a) Fossil fuels like coal and petroleum
- (b) Wood and charcoal
- (c) Natural sources like water, solar, wind and natural gas
- (d) Nuclear

Coal and petroleum are non-renewable energy sources. Fossil Fuels such as coal and gasoline provide most of the energy needs of the world today, but because of their diminishing reserves, high prices and most importantly, their damaging effect on the environment, alternative sources of energy and environmentally friendly fuels are now being developed. Burning of fossil fuels has caused an increase in the harmful gases called green house gases. These are carbon dioxide, nitrogen oxides and carbon monoxides. These gases trap the solar radiations in the earth's atmosphere and as a result, the radiations cannot escape. The earth warms up as a result. This phenomenon

is called as global warming. Global warming has many detrimental effects on the earth like melting of ice caps, glaciers and raising the sea levels. This has an adverse effect on the species breeding and surviving.

**Limitations of conventional energy sources:**

1. Resources for power generation i.e. coal, gas etc. are limited
2. The hydro power is seasonal and varies depending upon the rain fall in the catchments areas
3. Submersion of land area due to raise in water level
4. The energy conversion process from thermal power projects results in emission of green house gases.

**Advantages of utilizing renewable energy sources**

1. These resources are locally available and everlasting
2. The conversion process does not involve in emission of green house gases
3. The systems are modular in nature

Prospective Renewable energy sources for hill rural regions of Uttarakhand

It has been seen that the consumption of non-renewable sources of energy has caused more environmental damage than any other human activity. Electricity generated from fossil fuels such as coal and crude oil has led to high concentrations of harmful gases in the atmosphere. This has in turn led to many problems being faced today such as ozone depletion and global warming. Vehicular pollution has also been a major problem. Therefore, alternative sources of energy have become very important and relevant to today's world. These sources, such as the sun and wind, can never be exhausted and therefore are called renewable. They cause less emission and are available locally. Their use can, to a large extent, reduce chemical, radioactive, and thermal pollution. They stand out as a viable source of clean and limitless energy. These are also known as non-conventional sources of energy.

It is important to generate alternate renewable energy sources which can be utilized by locals, service providers and tourists visiting these regions. Following are the various energy applications which will help in providing alternative energy sources along with conserving energy in these regions of the state:

**Solar water heating systems**

Solar water heating systems help in conservation of conventional energy and also, fossil fuels used in heating water in domestic sector, commercial sector and

industrial sector. This technology is becoming very popular in southern states of India.

Solar Cookers.

**There are different models of solar cookers:**

- a) Box type solar cooker - suitable for use by individual families
- b) Parabolic dish type solar cooker - suitable for cooking food for 10 - 15 people and also, to prepare several other items. In small hotels for preparation of breakfast items and tea / coffee during sunny hours without using any fossil fuel.
- c) Community cooker model facilitates cooking food for 50 people. The cooking can be inside the kitchen. This system can be installed in catering units etc.

**Solar dryers**

This is one of the best technologies suitable for creating rural employment. Dehydration process helps in preservation of fruits, vegetables by reducing the moisture content and improving the shelf life up to 6 to 10 month period. Preparation of fruit bars i.e. mango bar, mixed fruit bars, drying of edible forest produce are best suitable applications in rural areas for reducing wastage and income generation to the rural people by gaining value addition.

**Solar Photovoltaic**

This technology facilitates in converting the solar energy into electrical energy and is being used for applications like Lighting, Water pumping, communication systems, Remote area village electrification, and Telecom applications.

**Bio-energy**

Bio-gas & improved smokeless wood burning stoves are two important schemes being promoted by Ministry of Non-conventional Energy Sources, New Delhi in rural areas for conservation of the fossil fuels i.e. Firewood, kerosene, L.P.G etc.

**Improved smokeless wood burning stoves**

These models help in improving the thermal efficiency of wood burning stoves and also help in creating smoke free kitchen. They will also help in reducing the consumption of fire-wood and also, helping the children and women from eye and lung diseases caused due to smoke.

Utilising solar energy, implementing biogas and improved smokeless wood burning stoves schemes will help in conservation of fossil fuels / conventional electrical energy along with bringing following benefits:

A- Employment /Self-employment opportunities

B- Environment protection

**Role of Government in promoting environment sustainability**

Following are some prescribed measures which should be undertaken by the government to promote and develop tourism in these regions along with sustaining the fragile environment on which it survives:

- (i) Introduce policies/schemes that benefit the rural tourism industry, e.g. incentives, subsidies, regulations, site focus
- (ii) Promoting participatory approaches that recognise the role of communities, NGOs and the private sector in improving the efficiency of conservation management, especially when governments are facing declining budget allocations;
- (iii) Encouraging local community participation, during planning, implementing and monitoring, the involvement of each rural community is greatly needed so that projects can be realized according to local preferences.
- (iv) Community capacity building through training and orientation is important in the region. The following training components are recommended:

Guiding capabilities, Conservation, Language training, Management, Waste management-zero waste, Bird watching, Bio diversity, Sustainable agriculture and Organic farming, Handicrafts, Food processing, History, Photography, Information technology etc

- (i) Generating economic benefits from local services and enterprises that promote a conservation and social ethic as part of product development and marketing
- (ii) Increase awareness of ecotourism and its contribution to conservation and economic development in rural areas of the region
- (iii) Search for more effective strategies for environmental conservation and development.
- (iv) Rejuvenation of regions traditional culture and rituals
- (v) The expansion of tourism sites to local areas, to create new income sources which is distributed among people in all regions
- (vi) Preservation of local culture and customs
- (vii) Creating opportunities for locals to learn about hybrid vegetable and crop seeds, the drawbacks of non-biodegradable wastes (especially discarded batteries and

polythene bags), and the effects of pesticides and herbicides.

- (viii) Promote and encourage local activities like fairs, festivals etc
- (ix) Improvement of basic facilities should be focused on and around these regions (like cleaning up of tourists and scenic areas, construction of proper public convenience and garbage disposal areas.
- (x) Inadequate infrastructure is one of the major limitations in rural tourism; sustainability must be a major concern in the development of physical structures. The appropriate type and volume of infrastructure and utilities should be carefully designed, planned, and monitored.

In some rural tourist destinations, a great deal of infrastructure is provided to improve access and convenience. While local people may benefit from this, they may lose their unique way of life. Therefore, physical structures should be developed under the three following conditions:

Firstly, infrastructure, and necessary facilities should be constructed according to a design and in a quantity that meets the needs of tourists as well as of local people, and at the same time causes no negative ecological or socio-economic impact on rural communities. In this respect, such physical development projects as the water supply, sewerage treatment system, solid waste disposal management, and tourism activities such as camping, trekking and diving, all of which may contribute to rural degradation, must be all monitored according to clear environmental and socio-cultural standards. Secondly, physical development from both the public and private sector should be based on the needs, goals, values and attitudes of the rural host communities. Rural assets such as the architectural heritage and historic values must be protected. New buildings should be constructed in a design consistent with the local architectural style. In addition, local businesses providing accommodation, food etc. should be given priority in terms of marketing and management, to ensure that the benefits come to local people rather than outside investors. Physical development should be carried out in accordance with zoning plans, so as to achieve a balance between conservation, tourism and public use.

- (i) Management and conductance of adequate rescue operations and emergency planning
- (ii) Provide facilities for Technical assistance for entrepreneurialism and loans, Garbage disposal management, Alternative energy and water management, Need Skilled ecotourism service providers, Natural biodiversity, flora and fauna

and culture guides

(iii) Provide Training for Home-stay Owner:

HS management (cleanliness, cooking & service delivery)

Host and guest relations

Support agents joint training of ponyman, guide etc

(iv) The inclusion of the Panchayats is critical for rural ecotourism, hence there involvement should be drawn towards it

The final interest that of the environment is the essential corner stone, unless the environment is safe-guarded Tourism is in danger of being a self destructive process. Destroying the very resource upon which it is based. It can be seen, therefore, that the major role players in tourism all have a stake in sustainable tourism and that their present and future interests are in many ways tied to one another and to sound environmental practice. The protection of environment is an essential part of tourism development without adequate environmental and cultural protection, tourism development in particular and development prospects in general are undermined, compromising the present and future prospects of tourism organization, tourists and host Country alike. There are many pitfalls along the avenue of tourism development. Both short-term and long-term planning, implementing and monitoring are vital in avoiding damage to rural areas. Environmental management, local involvement, sound legislation, sustainable marketing, and realistic planning are all crucial if rural tourism is to be sustainable, and make a positive contribution to the lives of rural people of these hill rural regions of the state.

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