

# The Current Development of Ecotourism in Ziro Valley and its significance in Arunachal Pradesh, India

Tami Mize<sup>1</sup>, K.S. Kanwal<sup>2</sup>, N.Rangini<sup>3</sup>, Lod Yama<sup>4</sup>, Olak Patuk<sup>5</sup>, M.S. Lodhi<sup>6</sup>

<sup>1</sup>Junior Project Fellow, G.B.Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Arunachal Pradesh, India,

<sup>2</sup>Scientist-C, G.B.Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Arunachal Pradesh, India,

<sup>3</sup>Senior Research Fellow, G.B.Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Arunachal Pradesh, India,

<sup>4</sup>Junior Project Fellow, G.B.Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Arunachal Pradesh, India,

<sup>5</sup>Junior Project Fellow G.B.Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Arunachal Pradesh, India,

<sup>6</sup>Scientist-D & Scientist Incharge, NE Unit, G.B.Pant National Institute of Himalayan Environment and Sustainable Development North East Unit, Arunachal Pradesh, India,

## ABSTRACT

Ecotourism has been identified as an important niche for its capability to empower rural communities ensuring development with sustainable utilization of natural resources and it has become increasingly important for the economy of developing countries like India. In the recent years India Himalayan Region (IHR) is the most visited destination because of its unique characteristics, rich natural resources and home for various indigenous communities. The State of Arunachal Pradesh nestle in the lap mighty Himalaya is bestowed with diverse range of natural attractions, beautiful mountains with dense forest, an abode for myriad of flora and fauna, unique culture and traditions contributed by 26 indigenous major tribes and more than 110 sub-tribes and historical sites known for religious value has huge tourism potential. State is in the early stage of ecotourism development and it needs to be promoted by well coordinated marketing strategy so that it can occupy a brand images in the ecotourism market. The present study involved desk and field research to investigate differences in the level of tourists satisfaction, level of importance, ecotourism products perspectives, potential for further ecotourism and others form of tourism development in the Arunachal Pradesh in general and Ziro Valley in particular. The paper is an attempt to examine the current ecotourism status, perspective and potential of ecotourism development, tourist's perception and for the further improvement of ecotourism in Ziro valley of Lower Subansiri district of Arunachal Pradesh.

**Keyword:** Himalaya, Ecotourism, Homestay, Community participation, Tourists perception

## 1. INTRODUCTION

Tourism is one of the largest and fastest growing sectors among the various service sector industries which have made rapid strides globally in terms of gross revenue and foreign exchange earnings. Tourism generates employment opportunities, contributes to the conservation of natural resources and preservation of cultural and architectural heritage and provides financial incentives to the community. Tourism is considered as a saviour to drive the state economy towards development and within the tourism sector, one of the most rapidly growing areas is the ecotourism. As per The International Ecotourism Society (TIES), ecotourism as a form of sustainable tourism is defined as “responsible travel to natural areas that conserves the environment, sustains the well being of the local people” and involves interpretation and education and is about uniting conservation, communities and sustainable travel i.e. a viable tool for conservation, protection of bio-cultural diversity, and sustainable community development. Ecotourism involves travel to natural destinations, minimizes impacts, builds environmental awareness, provides direct financial benefits for conservation, provides financial benefits and empowerment to local people, respects local culture and supports human rights and democratic movement [1] Ecotourism have many forms and magnitudes such as losing oneself in a beautiful natural forest or landscape watching animals, birds and trees in the forest, engaging in trekking, boating or rafting, wandering and experiencing local culture. While enjoying with the nature, it ensures protection of natural areas, production of revenue and education. Besides services of feeding and accommodation, travellers have an importance of such ecotourism services as watching flora and fauna, hiking, walking to the hills are offers satisfaction to the tourist [2]. Ecotourism is a growing niche market within the larger travel industry, with the potential of being an important sustainable development tool [3]. Tourism industry cannot stand without development of ecotourism because it can be regarded as one of the best approaches to promote ecotourism and sustainable development. The principles of ecotourism basically focus on increasing the involvement of local community in the planning supporting of economic development, environmental conservation, social and cultural awareness, capacity building.

Arunachal Pradesh, one of the largest states of the Indian Himalayan Region (IHR), is located in the eastern most region of India, bordering Myanmar in the East, Tibet in the north and Bhutan in the western region. The state is situated between the latitude of 26°28' N and 29°33' N and longitude of 91°31' E and 97°30' E and covers an area of 83,743Km<sup>2</sup>. The diversity of topographical and climatic condition favours a luxuriant forest in the state. According to state forest report (2015), the forest cover of the state is about 82.1% of its total geographical area and the second largest forest covered state in India having 67,248 sq. Km of forests. The state of Arunachal Pradesh is fortunate to have rich in all natural resources of flora and fauna and cultural heritage and historical sites reflecting the glorious heritage of diverse indigenous tribes with several dialects to live and flourish with their distinct identities and deep sense of beauty which finds delightful expression in their songs, dance, attires, handloom and handicrafts which allows tourists ready access to all these treasures. The potential and the need to enhance the socio-economic condition of the indigenous tribes residing in the state as well as to conserve the nature treasure. Ecotourism is a potential driver of sustainable tourism development providing opportunities for the development of the marginalized and rural areas stimulating economic development and social well being of people and to preserve the natural environment and cultural heritage through awareness creation. At present, Government of Arunachal Pradesh has approved 12 tourist travel circuits in the State. Each of the circuit is characterised by its distinct ethnic culture, topography and vegetations. They are: 1. Tezpur-Bhalupong-Bomdila-Tawang, 2. Itanagar-Ziro-Daporijo-Aalo-Pasighat, 3. Pasighat-Yingkiong-Jengging-Tuting, 4. Tinsukia-Tezu-Hayuliang, 5. Margherita-Miao-Namdapha-Vijaynagar, 6. Roing-Mayudia-Anini, 7. Tezpur-Seijosa-Bhalopung, 8. Ziro-Palin-Nyapin-Sangram-Koloriang, 9. Doimukh-Sagalee-Pake Kessang-Seppa, 10. Aalo-Mechuka, 11. Daporijo-Taliha-Siyum-Nacho, 12. Jairampur-Manmao-Nampong-Pangsau Pass. Beautiful Ziro valley Ziro is home of the Apatani tribe lies in the Tourist circuits No (2) Itanagar-Ziro-Daporijo-Aalong-Pasighat one of the most popular tourist circuits attracting tourist inflows by the beautiful landscape of scenery, culture and customs of Adi, Apatani, Tagins Nyishi, Galo, etc the major tribes in the state. Most interestingly Ziro valley or Apatani Plateau is in the proposed tentative list of UNESCO world heritage as *Apatani Cultural Landscape*. Keeping in view the ecotourism potential of Ziro valley, the present study was carried out to examine the current ecotourism status, perspective and potential of ecotourism development, tourist's perception and for the further improvement of ecotourism in Ziro valley of Lower Subansiri district of Arunachal Pradesh.

## 2. MATERIAL AND METHODS

**2.1 Study Area:** The valley, inhabited by the Apatani tribe, lies tucked in the lower ranges of the eastern Himalayas in the state of Arunachal Pradesh in north-east India. It comprises of about 32 km of cultivable areas out of 1058 km of plateau, undulated by small hillocks at an elevation of 1525 MSL to mountain tracts ranging from 1830 to 2900 MSL. It is located at 27.63°N and 93.83° E at an elevation of 1688 metres (5538 feet) to 2438 meters (8000 feet). Its cool weather in summer is its major attraction. It is famous for its pine-clad gentle hills and rice field all around. The people of Apatani were originally belonging to the Tibeto-Mongoloid stock

[4]. They trace their descent from one legendary ancestor Abotani. Apatanis have migrated to Ziro valley from northern areas beyond Kuru and Kime rivers or Talley Valley. Apatani population is around 83,030 (census 2011) and they live in fairly large villages, which are compact and permanent, although during recent years they are dispersed to avoid damage of fire accidents. Housing patterns are long and houses are made of bamboo and timber. They believe indigenous religion 'Donyi-Poloism' and are patriarchal in social system. Like many other tribes of Arunachal Pradesh, they are highly co-operative and mutually linked up by kinship, ritualistic and friendship ties through *Binee Aajing* (*cordial friends*). Apatani have a distinct civilization with systematic land use practices and rich traditional ecological knowledge of natural resources management and conservation, acquired over the centuries through informal experimentation [5]. The tribe is known for their colourful culture with various festivals, intricate handloom designs, skills in cane and bamboo crafts and resources management. This has made Ziro valley a good example of a living cultural landscape where man and environment have harmoniously existed together in a state of interdependence even through changing times, such co-existence being nurtured by the traditional customs and spiritual belief systems.

The community has evolved a unique skill of Paddy-cum-fish cultivation where along with paddy- fish is reared on the fields. This is further supplemented with millet (*Eleusine coracana*) reared on elevated partition bunds between the rice plots [6]. The agro-ecosystems are nourished by nutrient wash-out from the surrounding hill slopes. Nutrient loss with crop harvest is replaced by recycling crop residues and use of organic wastes of the villages so that soil fertility is sustained year after year. The community still maintains the age-old tradition of resource management and keeps on strengthening its traditional systems of forest management, bamboo plantation and land and water resource utilization. Besides agriculture, they rear Mithun (*Bos frontalis*), cattle, pig and poultry. The community is sub-divided into numerous clans but all the clans are believed to have evolved from the same ancestor. The clan is the main social unit, which acts in solidarity. The community has diverse types of rituals, ceremonies and dances [7]. Daminda and Pakhu-Ittu are popular dances. Dree, Yapung, Myoko, and Murung are major festival ceremonies of Apatani. Myoko, the most important festival, is celebrated each year in the month of March in cyclical manner by formation of three groups, each group comprising of one or numerous villages. The festivals are celebrated mainly to ensure better crop harvest, protection of grain from hailstone, insects, pests, diseases and wild animals, and also for the well being of individuals or community as a whole. There is a traditional village council to regulate the administration, which has three tiers, namely Akha Buliyang, Yapaha Buliyang and Ajang Buliyang. Ecotourism assets are the Natural and cultural features that attract tourist inflows in Ziro valley [Table 1] due to beautiful landscapes, unique construction style of Apatani's hut, endemic or rare flora and fauna, local agricultural products, handicraft, ornaments, local culture including festivals, local folktales, history, historical monuments and heritage sites.

**Table 1: Tourist inflows in Arunachal Pradesh and Ziro valley**

Year	Domestic		Foreign		Total	
	State	Ziro	State	Ziro	State	Ziro
2008	149292	206	3020	325	152312	531
2009	195147	527	3945	479	199092	1006
2010	227857	840	3395	281	231252	1121
2011	233227	10801	4753	1217	237980	12018
2012	317243	9892	5135	576	322378	10468
2013	125461	9284	10846	802	136307	10086
2014	336028	10960	6307	267	342335	11227
2015	352176	12150	5757	603	357933	12753

Sources (Deptt. of Tourism, Govt. of Arunachal Pradesh)

**2.2 Methodology:** The study is based on primary as well as secondary data. Primary data were obtained through investigation in the form of direct interviews and questionnaires with the official of District Tourism Department, local villages Panchayat, and prominent members of different Non Governmental Organisation viz. Ngunu Ziro, Smile Ziro, Rural Tourism Development Committee, home stay owners, tour operator, tourist guide, porters, stakeholder and common intellectual publics. The report of various tourism organisation, news papers, magazine, website, were also entertained for this purposes. The study was conducted during September 2014 to April 2016.

### 3. RESULTS AND INTERPRETATION

**3.1 Natural products.** Ziro valley offers plenty of natural elements such as scenic beauty, forest, streams, river, flora and fauna, mountain, agriculture fields etc. for tourist interest and attractions [Figure 1 & 2]. The valley is categorized under sub-tropical and temperate forest with huge diversity of potential flora and fauna for

ecotourism development. The blue pine and bamboo plantations on the fringes of a wide mosaic of wet rice fields surrounded by thickly forested mountains on all sides' forms a picturesque landscape. The Talley Valley Wildlife Sanctuary is one of the famous attractions of Ziro is in habitat of many unique and endanger and diverse range of flora and fauna. The sanctuary is spread over an area of 337 square kilometres and is surrounded by silver fir trees, ferns, orchids, bamboo and rhododendron etc. This sanctuary offers abode to several species like clouded leopards, deer, hornbill, bear, voles, varieties of birds etc. Sanctuary is situated towards the northwest of Ziro in Arunachal Pradesh. The Talley Valley Wildlife Sanctuary is known as a biodiversity zone. Near Talley Valley Wildlife Sanctuary, there is a camp known as Tale camp, which is about 30 kilometres from Ziro. The gateway to the Tale Valley Wildlife Sanctuary is the Pange Camp, which is 7 km from Manpolyang. Now the Department of Forest and Environment Government of Arunachal Pradesh, District administration, NGOs' and tour operator are working to develop more trekking track for accessible in the sanctuary for tourists.



Fig:1 Tale valley landscape



Fig:2 Mithun (*Bos frontalis*)

**3.2 Cultural products:** Ziro valley is the Proposed "Apatani Cultural Landscape" UNESCO world heritage site tentative list 2014 is huge potential of age old cultural, historical importance and custodian of unique tribal culture in Arunachal Pradesh. Most of the cultural site visits at Ziro are Tarin Fish Farm, Paddy-cum fish field, Hong village (Asia second largest village and typical Apatani hut). Participating in cultural and traditional events such as agro-tourism (paddy-cum fish cultivation) handicrafts making, fairs and festivals such as Dree, Yapung, Myoko and Murung [Figure 3&4] are the major festival of Apatani Dree festival is celebrated on 5<sup>th</sup> July of every year. There is a great merry making and dancing daminda dance during festival. Yapung festival celebrates in the month of September and October respectively. The *Myoko* festival is celebrated each year on 20<sup>th</sup> to 30<sup>th</sup> March in a cyclic manner by forming three groups of villages. First group comprised of Hong village alone, Second group are Hari, Dutta and Bulla (comprising Kalong, Reru, Tajang, and Lempia village). Third group are the villages of Hija, Dutta, Mudang-Tage, Michi and Bamin. Murung is celebrated every year in the month of January. The significance of these festival are mainly to ensure better cultivation, protection of the grains from hailstone, storms, insects and wild animals and well being of villagers in general and their livestock. The Apatani perform many traditional dances which traditional attires attracts many are Daminda and Pakhuittu. Walking in the Hong village (Asia second largest village and typical Apatani hut) tourist is experiencing maintains the age-old tradition of resource management and traditional systems of forest management, bamboo plantation and land and water resource utilization. The local women and men who engaged work in paddy field or walking or sitting at the typical hut with traditional attires; these reflect the real unique culture of the destination and it admired tourist to interestingly interact with people to know more about the culture.



*Fig: 3 Murung festivals*



*Fig: 4 Subu-Supung ceremony*

**3.3 Activities:** In ecotourism most of the activities are done in the rivers and forest such as angling, fishing, and photography, bird watching, experiencing the rich biodiversity and experiencing local culture. At Ziro valley most of the tourist interested to visit walking in the village experiencing unique culture of Apatani, walking in the fish cum paddy fields, trekking and camping [Figure 5 & 6] at Talley valley wildlife sanctuary and pange forest, trekking in the **A) Hakhe Tari Trek:** It is one of the most amazing hikes. The beautiful water fall of Pange river leave you spell bound. It is a 6.5 distance of soft trek. **B) Talley Valley Trek:** this trek offers undisturbed pristine climax vegetation and primal mountain wilderness. Indulge yourself in an experience of valley of flower and be amazed by the virgin forest that welcomes you with range of vibrant flora and fauna. It covers a distance of 32 km from Ziro town. **C) Pamu-Yalang Trek:** It is a heritage trek named after a hawk stone covering 8 km starting from Siibe village and ends at Hija village. It has been named when the rock has been frequented by hawk those days. It is believed by local that on throwing bamboo slit rings from Pamu Yalang if stuck on the branches of a tree besides indicates success of one wishes else wishes will not be fulfilled it is located 6000 ft above sea level at Dolo Mondo hill of Ziro valley from where one can enjoyed enchanting panoramic view of Ziro. **D) Bird Watching Expedition:** the bird watching expedition is organized by the Arunachal Birding Club in collaboration with District tourism Office Ziro, at talley valley wildlife sanctuary and on the trek route to pange. There are around 300 birds species occur in the valley **E) Ziro Butterfly Meet:** It is an annual event organized by Ngunu Ziro (NGO). The district is one of the popular habitats for Butterflies, and more than 200 butterflies have been photographed in Tale Valley wildlife sanctuary and Pange valley area. Many endangered species like, Kaiser-e-hind, Bhutan Glory and Brown Gorgon are the prominent. Trekking in the Kiwi orchards and participated in the cultivation and harvesting of Fish cum paddy practises are the most attractive events and activities in the Ziro valley [8].



*Fig:5 Camping Site*



*Fig:6 Trekking*

**3.4 Accommodation and eco-lodging services:** Services offer overnight accommodation to visitors in the camps, and homestay [Figure 7] at Hong Village, Hari, Siiro Michi, Mudang Tage, Hapoli etc gives different experiences for the tourists, it create tourist to feel homely at Ziro , serving Pike Pilla, and other local dishes, cuisine with locally made salt Tapyo. Providing 'O' and Apong (local rice beer) besides narrating folktales, folklore, rite and ritual systems, socio-cultural, customs, age old traditions value of Apatani. Presentation of folk

and traditional dances by women folk with beautiful traditional attires for entertaining, teaching and participating them in the dances to tourist is unique products of best services at homestay catering tourist to stay more days at home stay and calling them again to visit Ziro. Experience of tourists were also documented during the study. Mr. **Gerry Martena** a Wildlife Research from Bangalore shared that “This was an amazing experience for me. Thanks for all your help and hospitality, all the best in all your endeavours. I will be back.’ Mr. **Navraj Pradhan**, a visitor from International Center for Integrated Mountain Development, Nepal who stayed at Ziro highlighted that “it has certainly been a wonderful experience staying at a home stay facility’. And another visitor from Netherlands, **Ms. Frida Duetiker** said, “Very friendly-good and clean rooms and hospitality at homestay”. Department of tourism has registered the Homestay to give categories and classes as their services and facilities [Table 2].



Fig. 7. Homestay facility in Ziro valley

**Table.2:** List of Register Homestay in Ziro

Sl No	Name of Homestay owner	Location	Contact No
1	Miss Takhe Ankha	Hong Village	+91 8575770952
2	Smti Narang Yamyang	Hong Village	+918014012680
3	Mr Takhe Nyikang	Hong Village	+91 8014068697
4	Miss Dusu Yami	Perbi, Ziro	+919856347746
5	Miss Hage Anu	Hari village	+918794363633
6	Shri Hage Dolo	Hari village	+919615239954
7	Shri Hage Hinda	Hari village	+918014526454
8	Shri Tasso Rinyo	Hari village	+918729904079
9	Smti Hibu Yache	Siirro village	+918575052646
10	Smti Kago Kampu	Siirro village	+918014348727
11	Smti Punyo Yalung	Siirro village	+919856209494
12	Smti Nada Yasha	Hija village	+918974100539
13	Smti Pura Yanya	Hija village	+918014647860
14	Shri Michi Tajo	Michi village	+918014012558
15	Shri Mudang Rosy	Mudang Tage village	+918794405047
16	Shri Tamo Tamang	Bamin village	+919862890096
17	Smti Talying Shanti	Suluya village	+919615170002
18	Smti Tiling Yaneng	Ziro village	+918974384507
19	Smti Hinyo Amung	Ziro village	+918132861756
20	Shri Koj Mama	Hapoli village	+918575248013

Sources (District Tourism Officer, Ziro)

**3.5 Tours and Transport services:** Various transportation and travel services such as tour guide, porters, local guides, trekking guides, taxi services are available in Ziro valley. Local tour operators and community provide these services.

**3.6 Tourists perception:** During the study period, we survey interviewed to 200 International Tourists, 145 Domestic Tourists of their perceptions. Around 68% of tourists enjoyed walking in the village, 23% walk in the

Paddy cum fish cultivation, 10% trekking in the forest of the day. In the accommodation sector 64% tourist staying at Homestay and 36% at Hotel because they satisfied and have experience warmness of host friendliness attitude, cultural knowledge, Safety and hospitality of host make them feel homely atmosphere at homestay. Especially the foreign tourist interested to be in the homestay to know the culture of the areas. The mesmerising scenic beauty, eco-friendly construction and cultural preservation of Ziro valley are impressing most of the tourist. Some of the tourist wants to visit again because they like and love the environment of the area, scenery of the Ziro, people's behaviour, people's attitude; attitude of management at homestays and attitude of vendors are remarkable.

#### 4. COMMUNITY AND ECOTOURISM

As an enterprising efforts ecotourism can established a sustainable relationship for the improvement of the welfare of such communities in various ways through participation resources sharing, frame works, development of livelihood opportunities, conservation of resources, both cultural as well as natural [9]. Tourism and indigenous people are one of the interdependent elements in the tourism development in the region. Both Tourism and community go hand in hand with utmost cooperation is the best way to booming tourism in the destinations. It is important for community to get benefit revenue generation from tourism and Indigenous people must be the assets of tourism [10]. However, when ever in the tourism and community conflicting about the issue it creates bad images in the regions is distracting the tourism flows in the destinations. Participation of community in the development of tourism polices and management system plays a vital role to curve the negative impacts in the regions. The methods to development of tourism activities with local communities will maximize social and economic benefits and minimize negative environmental impacts. It is noted that before tourism booming in the region development of benefit sharing mechanism between tourism and local community is necessary, because land, forest, water, mountains, hills, culture are belongs to indigenous people and its livelihood asset of age old customs in the tribal areas. Create environmental awareness, information and education to both host community and the tourist is must. The idea was to bring the benefit of tourism directly to the community level and to give the tourists a unique experience of the Apatani eco- cultural landscape and true flavor of the way of life of the Apatanis.

In Ziro valley, community-based ecotourism came to the force since 1996 towards developing economically and culturally sensitive locations in rural parts of the country. To tap the eco-tourism potential of beautiful Apatani plateau, Future Generations Arunachal (FGA) started community based eco-tourism with the support of Ashoka Trust for Research in Ecology and the Environment, Bangalore (ATREE) in 2010. FGA began the project by imparting various trainings on eco-tourism and benefits of home-stay facility. The training curriculum ranged from nature guide, trek development, packaging of local cuisine to marketing and networking with different stakeholders. Further to oversee the whole initiative of eco-tourism FGA supported in formation of an apex community based institution called Ngunu Ziro. Now, the home-stay and allied activities are overseen and coordinated by Ngunu Ziro. It networks with tour operators, government agencies, expert organizations for promotion of the home-stay units.

To maintain equity in the flow of benefits of the home-stay initiative, Ngunu Ziro and Rural Tourism Development Committee each maintains a roster for allocation of visitors to the home-stay units. This ensures that there is cooperation rather than competition among the home-stay units. Food items such as vegetable, rice, fruit, meat, fish handicrafts are provided by the SHGs to the home-stay units. Not only that, cultural programme such as folk dance and songs are presented by the local artist and villages women. These groups are encouraged and supported to take up various activities like weaving, fish farming and kitchen garden. The local youth are employed as nature guide or tour guide for trekking and sightseeing thereby providing meaningful employment to them. The Achukuru Society (mother's Home, Suluya) Homestay and floating Apatani hut model developed by GB Pant National Institute of Himalayan Environment and Sustainable Development, North East Unit, Itanagar. The institute has provided antiquities ornaments and other articles items at Museum inside the homestay to strengthen and woo the visitors. The Achukuru society is generating revenue of Rupees 60,000 from entry fees, Rupees 3.3 Lakhs from fishery, Rupees 3 Lakhs from Homestay per year, through that revenue mother's home serving the destitute widows, orphans and disabilities. The society engaged and encourages women folk to prepare food Local cuisine like Pike pila and presenting traditional dances with beautiful attires for tourists to entertained them and showcase the traditional cultural richness of the Apatani. The multiplier effect of the home-stay initiative also flows to the other community members. The women of the villages have been organized into Self Help Groups and they participated and engaged in tourism related income generation activities as women empowerment in Ziro valley. The community participation in eco-tourism has remarkably increased the sense of ownership of the local community members in protecting and conserving pristine local environment of the Apatani Plateau. They are increasingly realizing that development and conservation is the nature gifts to the people for their livelihoods and utilising the resources as their valuable assets.

“Mr. Nalong Mize, Executive Director, FGA, feels that this model of home-stay initiative can be replicated even in other parts of Arunachal Pradesh with the support and partnership of Central and State Government. A Public Private Partnership (PPP) model can be developed where government can provide the infrastructure and financial support for training capacity building of the community, organizations/ institution like FGA can come in with training, exposure and facilitation and the community members come in with entrepreneurship. This will not only bring the benefits of tourism directly to the community level however will also lead to a more sustainable economic development for Arunachal Pradesh.”

## 5. WAY FORWARD ACTION FOR ECOTOURISM DEVELOPMENT

The finding of the study seems that to need an address, suggestion and appeals to concern government and community of destination is required to maintain coordination for the development and promotion of tourism. There is not perfect destination for every tourist's. In every destination there are some shortage and bottleneck as required by the tourist in a destination such as in Ziro valley there is bottleneck of infrastructure and superstructure and connectivity of air and land transportation. However the developmental activities of connectivity are in progressing and it need priority attention. Economic, socio-cultural and environmental are no huge negative impacts to the destinations yet however it is better to prevent and create awareness about the negative impacts of tourism is necessary before much negative impact happened. Ziro valley have huge potential for ecotourism however there are shortages of other product for leisure tourism it needs to develop to attract other forms of tourism demands so that valley could caters all forms of tourists. Ensure continuous monitoring of adverse effects of tourism activities and initiate suitable corrective measures. Recognizes and award quality by accreditation of ecotourism operators. Government to support, formulation of ecotourism policy and encourages the stakeholders of local community to preserve their biodiversity and culture for their livelihood. Mapping of the trekking route and village walking track and all tourist spots are the basic needs to connectivity from one spot to other spots for convenience. Maintaining peaceful atmosphere and tranquillity in the regions is the vital for every destination. NGOs, scientific and research institutions may create awareness about the practice of ecotourism development to launch training programs on ecotourism for tourism administrators, planners, operators and the general public. To explore and promotion of best tourism product in the tourism world it needs of good platform to provide visitor information and interpretation services of government interventions and initiation of e- marketing for tourism like Sikkim and Kerala states.

## 6. CONCLUSIONS

To conserve natural environment and preserving the culture heritage of the region is accelerated the process of sustainable development of eco tourism. Maintenance of ecosystem by nurturing the nature for prosperity will boost the tourism industry in a long way to provide the socio economic benefits to the destination. The sustainable development of the eco tourism will succeed only with the local people's participation by utilizing their traditional knowledge, co-operation and support. At present a small percentage of the local people are engaged in tourism related activities. Focus should be on more involvement and participation of the local people in ecotourism. This will reduce their dependence on the forest to a great extent thereby aiding the conservation process. At present a small percentage of income generated percolates to the local people. Attention should be given so that the majority of the income from tourism is retained with the local people. Keeping the view of high relevance of modern tourism catering large tourist traffic, various types of better facilities for accommodation, transportation, recreation, and some tourism related aspect should be developed in a planned way at the tourist places for the need and comforts of the tourists. Government should support to the undeveloped tourist areas for the development of infrastructural facilities. This would further strengthen the long-term socio-economic development of local communities with the help of ecotourism in the Ziro valley.

## 7. ACKNOWLEDGEMENT

The authors are thankful to Director, G.B. Pant National Institute of Himalayan Environment and Sustainable Development, Kosi Katarmal, Almora, Uttarakhand for facilities and encouragement. The authors are highly thankful to the villagers of Ziro valley for sharing valuable information and support during the field study.

## 8. REFERENCES

- [1] Honey, M. (1999). *Ecotourism and sustainable development: Who owns paradise?* Island press. Washington. DC.
- [2] Zografos, C & Allcroft, D. (2007). The Environmental Values of Potential Ecotourists: A Segmentation Study. *Journal of Sustainable Tourism*, 15(1).



- [3] Wood, M. E. (2002). *Ecotourism: principles, practices & policies for sustainability*. United Nations Environment Programme Division of Technology, Industry and Economics: *The International Ecotourism Society*. Retrieved from: <http://www.pnuma.org/industria/documentos/Ecotourism1.pdf>
- [4] Haimendorf C.V.F, (1962). *The Apatanis and their neighbours*, Oxford University Press, London.
- [5] Dollo M (2007) *Traditional farmers groups supporting sustainable farming*. LEISA. 2007
- [6] Dollo Mihin, Samal, P.K., Sundriyal, R. C. & Kumar, K. (2009). Environmentally Sustainable traditional natural resource management and conservation in Ziro valley, Arunachal Himalaya, India, *Journal of American science*,
- [7]. Grewal,D.S, (1997) *Tribes of Arunachal Pradesh, Identity, culture and Language* Volume-I, South Asia Publication Delhi 110052
- [8] Mize Tater. (2015). *The Land of sublime Tranquility: Lower Subansiri District* DTP publisher District Tourism Officer Ziro
- [9] Hinch, T (2001). Indigenous Territories in weaver David (Beds), *The Encyclopaedia of Ecotourism*. CBI Publishing Willingford, UK
- [10] Ross, S. & Wall, G. (1999). Ecotourism: towards congruence between theory and practice. *Tourism Management*.

