

Chapter XII

Points to Ponder

It is always easier said than done to effect desired changes. Huge potential exists in the KNP area for its renewable natural resources to generate benefits at local levels. It has also been revealed that these resources alone, without enabling institutional frameworks and an integrated vision will not bring development to the area in general and to the community in particular. The report has made an initial effort to develop an integrated viewing of different sectors both from macro and micro perspective.

-Manijyoti Baruah

Points to Ponder:

By motivating and involving the young citizens of the area through capacity building measures and by introducing innovative techniques, we can achieve what we could have achieved long time ago. It is important that this process should include mechanism for equal sharing of the benefits accruing to the development process. Thrust should be on the activities that have immediate impact on poverty reduction at the community level.

Huge potential exists in the KNP area for its renewable natural resources to generate benefits at local levels. It has also been revealed that these resources alone, without enabling institutional frameworks and an integrated vision will not bring development to the area in general and to the community in particular. The report has made an initial effort to develop an integrated viewing of different sectors both from macro and micro perspective.

The following section provides an analysis and overview of the challenges for sometimes that the park faces in sustainable forestry development.

Alastair James Driver [FCIEEM](#) a British [ecologist](#) and [conservationist](#) made the following recommendations which are worth considering in the context of conservation and related socio economic development process. His observations are based on his first hand experiences in Kaziranga National Park during his seven days visit to the Park in 2015.

1. Increasing conflict between farmers and wild elephants (e.g. as witnessed in the rice fields) is a key threat. The more that communities come into conflict with wildlife and see it impacting their livelihoods, the more they will take a stronger position against biodiversity conservation.
2. Raising awareness of the economic value of sustainable eco-tourism should be the prime objective when educating and engaging with local communities. There is great scope for increased direct engagement of villagers in this eco-tourism and there is also scope for greater engagement of the hotels and resorts. For example training up local villagers in bird identification using English and Latin names would be a huge advantage. Bird watching and photography is a growing area for eco-tourism but it is only as good as the guides who lead the walks and safaris. We were lucky to meet one or two who were good, but for example when I wanted to go out with the bird guide in my resort he was already booked up for a week and there was no-one else of his calibre available. Westerners will pay good money for such expertise and if it becomes known that the resorts in this area all have excellent birding expertise then people will come to the area from the west bringing much need income to the local economy.
3. It is also worth considering zonation for different types of tourists - for the keen eco-tourists like ourselves it would be good to have parts of the ranges where they pay more to be

allowed exclusive access. This would mean that they have more chance of seeing wildlife (eg tigers and unusual birds), than they would if they were with the noisy hordes of mobile-phone clutching day-trippers from Guwhati - as we experienced on our last evening in Kaziranga ! These less choosy visitors could be kept to other areas where they could easily see Rhino, Elephant and Water Buffalo. This would bring more money in to the area and would ensure that those who pay more, get a more rewarding experience - and hopefully recommend it to their friends and/or come back again.

4. It would be worth making contact with the Peace Institute and WWF India who have been working with local communities on the Yamuna River, to help train them up and equip them to adopt alternative livelihoods on (using the funding we provided after the Thames won the International River prize in 2010). In so doing, they are protecting the Gharial, Ganges River Dolphin, turtles and fisheries from over-exploitation and damage to riparian breeding habitats.



Prof. Alastair and his wife Belinda participated in a women empowerment programme in Kaziranga National Park. They took a river cruise at Dhanshirimukh (Photographs courtesy: Prof. Alastair)

A. Spice Garden Concept for KNP: to emulate Kerala model to promote tourism:

The concept of Spice Gardens as may be found in Kerala, could be a very successful entrepreneurial venture in the KNP area along the National Highway.

The weather works similarly in both the states. The humid summers and the damp monsoon season are common to both states. Abundance in growth of vegetation due to the weather and climatic conditions make it easy to develop a vegetable garden in the back yard of every household who can afford to accommodate space in Assam. When I visited such a spice garden on my way from Munnar to Cochin in the month of October a couple of years ago, surprise was in store for me. The spice gardens they developed were well laid out and effectively managed horticulture farm with lots of vegetation and aromatic spice and medicinal plant varieties commonly found and grown in Assam. e.g. turmeric, ginger, chillies of different types, cardamom and cinnamon plants, black pepper, bay leaf plants, henna (jetuka), mahaneem and varieties of local fruits and other medicinal plants and vegetables were grown along the pathways inside the garden. The garden we visited was on the slope of a hilly area and the rain waters the plants and trees receive do not damage the plantations by overwatering or flooding. At the same time the plants get adequate dose of water for their healthy growth.

'**Spice Tourism**' as developed in Kerala has a glorious historical background. It contributes handsomely to the state's coffers while creating employment opportunities. Vasco da Gama came to Kozhikode and returned to Portugal with a shipment of Indian spices. Cardamom, nutmeg, clove, cinnamon, pepper, vanilla, ginger and turmeric are the main spices grown in the state.

Kerala Tourism adopted strategies to promote 'Spice Tourism' through training programmes on spices to showcase the spices as an unique product among the tourists. Spice tourism is of benefit to both the tourism industry as well as the tourists. The tourists get to visit spice farms and gardens and are provided knowledge on the different spices grown in the state, spice processing practices, grading methods, effective packaging, quality control methods, etc. While exploring the Kerala spice plantations, one can go for nature walks, bird watching treks, taste for various spices and breathe in the fresh and fragrant air. Some of spice plantations even offer tourists accommodation in lodges. Those who want to have the first hand experiences in a spice plantations of Kerala may visit any of the plantations found in Thekkady, Wayanad or Munnar.

I want to share a pleasant experience during my visit to such a spice garden with our readers. An employee of the garden who guided us through the garden was very happy to learn that I hailed from Assam and while sharing his thoughts on spice plantation told us that spice gardens in Kerala had nothing new or unique for the people of Assam origin as we the Assamese people lived in an environment in rural Assam akin to the spice plantations environments in Kerala. He told us that he had spent a long time mostly in upper Assam and was quite familiar with the Assam's climate and environment and its rich biodiversity. He admitted that for Assamese people there was nothing new or unique in spice gardens. While visitors from other states were highly enamoured at the sight of green vegetations and various aromatic plants, herbs, trees

around we felt like remaining in Assam and the broad grin in the face of the guide conveyed his feelings whenever our eyes met.

In Kaziranga National Park area we may think of introducing this concept in a limited way.

Like Kerala Assam is also endowed with plenty of aromatic **spices and medicinal plants and herbs**. Along with the tea plantations, we can grab a wonderful chance to marvel at the plantations of different **spices**, popular all around. At least to begin with, we can identify a few households with large backyards with plantation potential for spices and medicinal herbs and plants to showcase the beauty and bounty of nature. Some of our large backyards and farm lands on either side of the highway under Madhya Kaziranga and Pub Kaziranga Gaon Panchayats can easily be developed into mini spice gardens to attract tourists. Areas which are not flood prone can be good spice gardens in KNP environment. Of course value additions to the produce and some innovative measures would make these gardens highly productive and more presentable.



Backyard plantations of a household in Geleki Village of Madhya Kaziranga GP. Natural growth of Black pepper climbers, turmeric, local varieties of chillies,lemon, citrus fruits, green leafy vegetables and some medicinal herbs amid tea bushes make a perfect natural spice garden.

The spice gardens of Kaziranga would have a separate section of local fruits and plants with medicinal properties found in the area. The garden with this horticulture farm can be a very good source of livelihood.

The prospect of Spice Gardens of Kaziranga area may receive further impetus with addition of the following local fruits and plants having medicinal values. This might be a very good source of livelihood options for many.

- Assamese Gol Nemu (citrus paradise)
- Kaji Nemu (citrus auratifolia)
- Paniol (Flacourtia gangomos)
- Leteku (Baccaurea sapida)
- Kujithekera (Garcinia cowa)
- Rupahithekera (Garcinea lanceofolia)
- Nagatenga(Myrica esculenta)
- Karzatenga(Carissa carangdus)
- Bael (Aegle maarmelos)
- Sirata(Swertia chirata)
- Tulasi/Tulsi(Ocimum tenuiflorum)
- Brahmi(Bacopa monnieri)
- Nilakanta(Ajuga bracteosa)
- Manimuni(Centella asiatica)
- Khutara sak(Amaranthus spinosus)
- Jilmil sak(Chenopodium album)
- Kothona/Nayantara(Catharanthus roseus)
- Mahaneem(Azadirachta indica)

Organic farming practices among selected farmers in the area should be taken up in consonance with the spice garden concept. Our interactions with farmers in the area who are economically prosperous had shown keen interest in dedicating some plots of their farm land into organic farming. To make the spice garden concept a reality, it is necessary that sustenance of this activity as a successful entrepreneurship, support of farmers in the vicinity must be forthcoming in channelizing the supply flow for such produce. Spices that may be taken up under organic farming may be- black pepper, turmeric, ginger, chillies, til and local varieties of black joha and bora rice initially. We may also experiment with the organic green leafy vegetables.



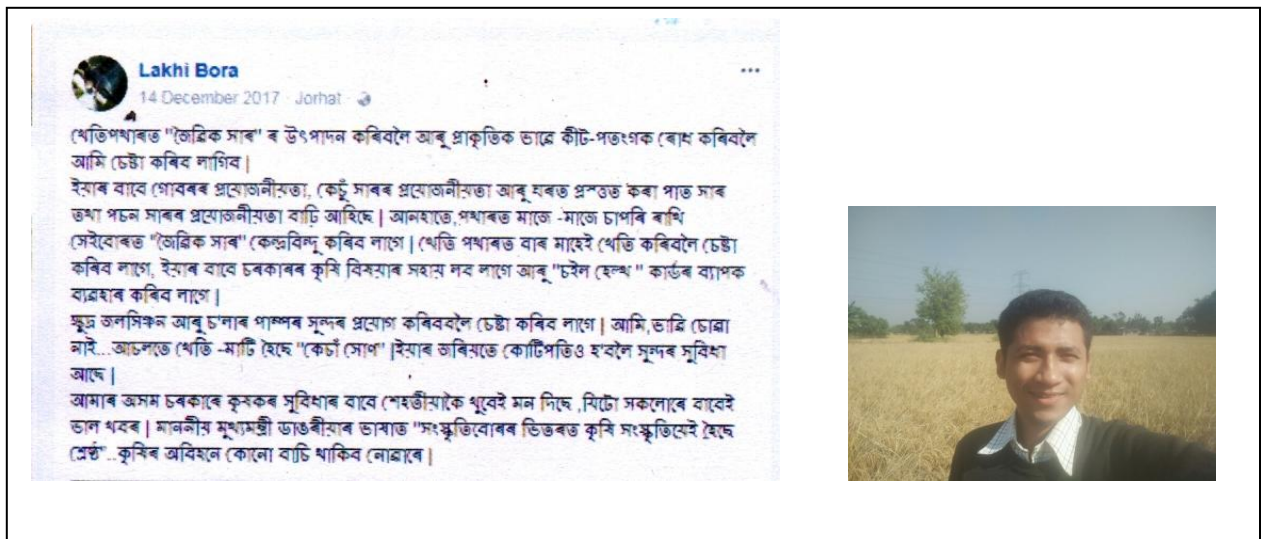
Black pepper plants climbing the areca nut trees in a back yard of a household (Geleki village, KNP)

Vermi Compost for Organic Farming:

With the introduction of organic farming practices in the area demand for vermi compost and such other ancillary products will be an urgent necessity. This automatically gives rise to youth empowerment through a series of activities associated with and to supplement organic farming practices on a wider scale. It may be mentioned that in a nearby tea estate viz. Hatikhuli the organic tea plantations have already been taken up successfully with black pepper plantations as a bye product.

Demand for organic produce will result in increase demand for supplementary produce and needs and will help in generation of self employment opportunities. This will give a fillip to the overall productivity and gainful employment opportunities marginally for the community. The initial impact may not be significant but over sustained efforts the picture will change.

It is encouraging to note that several farmers in the KNP area are well aware of the scope of this economic activity and in fact they are experimenting with the same on a limited scale. I have come across a young person who is a college student and farmer by passion from Golaghat district on the social media. He regularly posts valuable information, feedback on topics of environment and other important issues confronting us. In a recent post he shared his thoughts on eco farming and dos and donots for the benefit of his friends belonging to farming community. I am tempted to reproduce such a post below for the readers-



Our kind of spice gardens will be large back yard of a few local households who can afford plantation of easily available and easily grown aromatic spices, local varieties of citrus fruits, medicinal herbs and plants in the surroundings of lush green vegetations or tea plants. A fishery pond surrounded by banana, lemon, guava in the midst of the garden would add beauty to the garden. The organic produce of spices, medicinal herbs/plants, local kola JOHA rice with value additions, attractive packaging and other presentable forms may be demonstrated in a well anointed space inside the spice garden with digital presentation facilities for the visitors/tourists to showcase the products, their benefits and quality control management techniques. Booklets, pamphlets containing pictorial information on the product with contact

information details of the farm would enhance the acceptability to a greater extent. To maintain an uninterrupted supply of the organic produce, a sizeable no. of farming communities will be needed to engage themselves in cultivation.

Organic farming and different varieties of local rice :

KNP area is a traditionally rice growing and agriculture occupies a very important place in its socio economic and cultural life. Some unique rice varieties of state like joha (aromatic) , bora (sticky),and komal (soft) rice are widely grown in the area. These three special rice varieties are very popular in the state as these rice are used to prepare special dishes anonymous to Assamese traditional Bihu festival. Til (sesame) or Narikol(coconut) Pitha, Ghila Pitha, Chungapitha, Bhapotdia Tekelipitha, Akhoi, Hurum, Cheera are made from these special rice varieties. Common brands of these rice developed in the state are- Kolong, Jalkuwari, Kopili, Pnchnan, Padmanath and Jalashri.

B. River Tourism to be made popular in KNP like Jeep and Elephant Safaris:

There is no organized river cruising facilities in the KNP except the prearranged river tourism from Guwahati by some private operators and government as well. These tour packages are quite expensive and beyond the reach of budget travelers. While discussing local river tourism it should be kept in mind that the luxury cruisers operated by government and private parties from Guwahati to Kazirana and Majuli are not affordable to normal or ordinary tourists who look for economy packages within their budget. Our idea of river tourism is similar to the functioning of jeep safaris which are very popular among the tourists who visit the park every year. River cruising for a day or for a couple of hours duration, if introduced, may become a very rewarding self employment prospect in KNP. During our study we came across a large no. tourists both from the country and abroad who expressed that they would have liked to experience a boating in mighty river Brahmaputra.

Government may like to promote the concept of local river tourism by creating necessary infrastructure in areas like dhansirimukh and Bagori for tourists to cruise upstream and downstream along the mighty Branmaputra river in the park area. These river cruises will provide panoramic view of the park with its beautiful flora and fauna from the riverside to the tourists. The locals particularly the youth who look for every opportunity to invest in tourism for potential gain will come forward to take advantage of such an initiative. Inland Water Transport Division of State Government may like to work out necessary proposals drawing inspiration from our Dibru Saikhowa (Upper Assam) and Periyar Wildlife Sanctuary (Kerala) models.

During our field visits to some remote villages in the Dhanshirimukh area predominantly inhabited by local mishing community, we have met Shri Gautam Saikia a conservation activist

who owned the 'Dhanshirimukh Eco Camp' told us that two machine boats were at his disposal for tourists to enjoy the thrills of river cruising on Brahmaputra.

If these river cruises can be organized through optional packages under the control and supervision of an association like the one they have for Jeep Safaris in KNP, there cannot be reasons to doubt success of its working.

To my understanding there are more than 200 jeeps registered under the Jeep Safari Association of KNP and all these operators are doing brisk business through their three packages on offer viz. Central Range Safari, Western Range Safari and Eastern (Agoratoli) Range Safari during season. The charges they make for the safaris range from Rs.2,200.00 to Rs.3,000.00 or even more depending on customization of the packages/deals.

However, government intervention should be mandatory for such an initiative to ensure safety and quality management/control of vessels and for promotional support of organized banking institutions to the intending youth. This experimentation may have far reaching consequences in view of the demand for small boats during rainy seasons to evacuate the marooned villagers from the fringe villages.

C. Promotion of Traditional Weaving Activities with innovative value additions:

D. A Resource Centre for Innovative Solutions and Capacity building of Youth and Women:

There is need for a Resource cum Innovation Centre at Kaziranga National Park. A resource cum research centre in central Kaziranga area to cater to various needs like – capacity building in different bio friendly livelihood options with demonstration facilities, library/ e-library for research on conservation needs and innovative socio economic activities, conference/video conference facility, showcasing of local culture, tradition and heritage, accommodation facility for research scholars, botanical garden and animal healthcare facility. Important stakeholders of the resource centre should be- State Institute of Rural Development (SIRD) Assam, National Institute of Rural Development (NIRD) Guwahati, Indian Institute of Entrepreneurship (IIE) Guwahati, IIT-Guwahati, North Eastern Space Application Centre (NESAC), Don Bosco Institute (DBI), Guwahati, EGM Assam, North East Institute of Science & Technology (NEIST) Jorhat, Assam Agriculture University (AAU) Jorhat. GRASSHOPPER will coordinate the activities of all concerned and overall functioning of the Centre for sustenance with support from State Government. A detailed proposal is required to be worked out.