



# Agro-Eco-Tourism: A New Dimension to Agriculture

S. B. Barbuddhe and N.P. Singh



**Agricultural Technology and Agro-Eco-Tourism Dissemination Centre**



**भाकृअनुप - गोवा के लिए भा.कृ.अनु.प. का अनुसंधान परिसर**

(भारतीय कृषि अनुसंधान परिषद)

ओल्ड गोवा ४०३ ४०२, गोवा, भारत

**ICAR - ICAR RESEARCH COMPLEX FOR GOA**

(Indian Council of Agricultural Research)

Old Goa - 403 402, Goa, India



# Agro-Eco-Tourism: A New Dimension to Agriculture

S. B. Barbuddhe and Narendra Pratap Singh



**Agricultural Technology and Agro-Eco Tourism Dissemination Centre  
ICAR - ICAR Research Complex for Goa.**

Old Goa, 403402

*Published by*

**Dr. Narendra Pratap Singh**

*Director*

ICAR Research Complex for Goa,  
Old Goa 403 402

◆  
**Fax** : 0832 2285649  
**Telephone** : 0832 2284677, 2284678  
**E.mail** : director@icargoa.res.in



Copyright © 2014, Indian Council of Agricultural Research (ICAR)  
All Rights reserved. For reproduction of this document or any part thereof,  
permission of Indian Council of Agricultural Reserach (ICAR), New Delhi  
must be obtained.

**Correct Citation:**

Barbuddhe S.B. and Narendra Pratap Singh 2014. Agro-Eco Tourism: A  
New Dimension to Agriculture. Technical Bulletin No. 46, ICAR Research  
Complex for Goa, Old Goa 403 402.



*Text Compiled by*

**S. B. Barbuddhe and Narendra Pratap Singh**



*Technical Assistance*

**Sanjeev Kumar Singh**

**Yeshwant K. Gawas**

**Sidharth K. Marathe**



डॉ. आलोक कुमार सिक्का

उप महानिदेशक (प्रा.सं.प्र)

**Dr. Alok K. Sikka**

Deputy Director General (NRM)

भारतीय कृषि अनुसंधान परिषद

कृषि अनुसंधान भवन-II, पूसा, नई दिल्ली 110 012

**Indian Council of Agricultural Research**

**KRISHI ANUSANDHAN BHAVAN-II, PUSA, NEW DELHI - 110 012**

Ph : 91-11-25848364 (O), 24121571 (R)

Fax : 91-11-25848366

E-mail : aksikka@icar.org.in ; aloksikka@yahoo.co.in



## Foreword

INDIA exhibits diverse form of art and culture entrenched through a rich heritage, which makes India a hot global tourist destination. India has a thriving tourism industry, which contributes over 6% to the national GDP and 8% of the total employment. Goa is a paradise for international as well as domestic tourists due to its scenic beauty with lush green mountains, blue waters and white sands, winding rivers and picturesque villages with local flora and fauna. It is thus capable of offering a wide variety of entertainment for the discerning tourists and has the capacity to diversify into new arena of agro-eco-tourism.

Agro-eco-tourism offers an opportunity to experience the real enchanting and authentic contact with the rural life, taste the local genuine food and get familiar with the various farming tasks. It also provides the welcome escape from the daily hectic life in the peaceful rural environment and to relax and revitalize in the pure natural environment, surrounded by magnificent landscape.

Agro-eco-tourism can contribute towards a green economy transition through investments leading to energy and water efficiency, waste reduction, biodiversity and cultural heritage conservation, and the strengthening of linkages with local communities. The publication of technical bulletin on “**Agro-Eco-Tourism - A new Dimension to Agriculture**” by the ICAR Research Complex for Goa, will be a treat to those who wish to experience the nature closely.

September, 2014

  
(Alok K. Sikka)



गोवा के लिए भा.कृ.अनु.प. का अनुसंधान परिसर, ओल्ड गोवा.  
(भारतीय कृषि अनुसंधान परिषद)

**ICAR Research Complex for Goa**  
(Indian Council of Agricultural Research)

## *Preface*

**A** GRO-TOURISM is the form of tourism which capitalizes on rural culture as a tourist attraction. It has gained a new dimension as a potential income and job generating activity. The symbiosis between tourism and agriculture that can be found in agro-tourism is a key element of an environmentally and socially responsible tourism.

Travel and tourism are human-resource intensive, employing directly and indirectly 8 per cent of the global workforce. It is estimated that one job in the core tourism industry creates about one and a half additional or indirect jobs in the tourism-related economy. The diversion of core tourism to agri-tourism is expected to reinforce the employment potential of the sector with increased local hiring and sourcing and significant opportunities in tourism oriented toward local culture and the natural environment.

In agri-tourism sector increasing the involvement of local communities, especially the poor, in the tourism value chain can contribute to the development of local economy and poverty reduction. This can include the local supply of products, labour, and tourism services. There is increasing evidence that more sustainable tourism in rural areas can lead to more positive poverty-reducing effects.

Nowadays more and more travellers are found to favour environmentally-friendly tourism and be willing to pay for related experiences. Traditional mass tourism has reached a stage of steady growth. In contrast, agro-eco-tourism, nature, heritage, cultural, and “soft adventure” tourism are taking the lead and are predicted to grow rapidly over the next two decades.

*Agro-tourism is similar to eco-tourism except that its primary appeal is not the natural landscape but a cultural landscape. Agro-tourism can promote regional development and helps to conserve diversity. Agro-tourism can help in in situ conservation of plant and animal genetic resources. An advantage of this approach is that rural areas are popular destinations for holidays and excursions, particularly cultural landscapes which still give a glimpse of how past generations lived and worked. The agro-tourism can generate additional income for farmers and contribute to the conservation and development of the whole region.*

*Specific plans, mechanisms and tools to educate small and medium sized tourism related enterprises are critical. The promotion and widespread use of internationally recognised standards for sustainable tourism can help businesses understand the practical aspects of sustainable tourism and assist with mobilising investment.*

*Authors*

## CONTENTS

Foreward ...

Preface ...

<b>Agro-eco-tourism :</b>	1
➤ Objectives of Agro-eco-tourism	7
➤ Basic principles of Agri-Tourism	9
➤ Why Agro Tourism?	9
➤ Reasons for popularity	11
➤ Agro-eco-tourism as an enterprise	11
➤ Concept of Agro-eco tourism	12
➤ Agro-Eco-Tourism -Benefits	12
➤ <b>Components of agro eco tourism</b>	13
1. <b>Agro eco tourism centre</b>	14
2. <b>Agro eco tourism sight</b>	14
3. <b>Agro technology park</b>	14
➤ Development of agro-eco tourism	15
➤ Agro eco tourism development stake holders	16
➤ Socio economic prospects of agro eco tourism	16
➤ Difference between Agro Tourism and Eco-Tourism	17
➤ Role of agriculture institutes in promotion of agro-eco-tourism	17
➤ Role of NGOs	18
➤ <b>Scope for Agro-eco Tourism</b>	18
a) <b>Agro-Eco-Tourism Farms as Knowledge Centres on Biodiversity</b>	19
b) <b>Scope for horticultural crops</b>	20
c) <b>Scope : Ecology and education</b>	22
d) <b>Scope : Aesthetic Pleasure</b>	22
e) <b>Scope for Policy interventions</b>	23
➤ Agro-eco Tourism in Goa and Some case studies	23
➤ Promoting agro-eco-tourism	26
➤ Services offered by Agro-Eco-Tourism centres	27
➤ Constraints	29
➤ People's Involvement	30
➤ Perspective	30
➤ Agro-Eco Tourism Centers in Goa and Maharashtra	36



## Agro-eco-tourism : A new dimension to Agriculture

**T**ourism has emerged as one of the largest global economic activities. As per the estimate of World Travel and Tourism Council (W.T.T.C), tourism generated more than worth \$5 trillion of output equivalent to about 8% of total world G.N.P. India's share of world tourist arrival has been merely 4%. W.T.T.O. in its Tourism vision 2020 has projected that there would be about 1.6 billion international tourists in all countries of the world by the year 2020. As per the same estimation India is expected to fuel 4.5 times growth in international tourists' destination thus playing a major role in the economy of the states.

Agriculture is backbone of Indian Economy. Eighty five percent of the population is directly or indirectly dependent on Agriculture where as 26 percent of GDP comes from agriculture, 110 million farmers are dwelling in 6.25 lakh villages producing more than 200 MT of food grains feeding the country. More than profession, business, agriculture is culture. Hence, adding

additional income generating activities to existing Agriculture would certainly increase contribution of Agriculture to national GDP. Serious efforts need to be Goa falls into three distinct categories in terms of topography, Western Ghats, the midland region and the coastal belt. However, the coastal region, even though it occupies very small portion of the total geographical spread of the state, it has been the most popular tourist destination especially those coming from abroad. As a result, the entire concentration of touristic activities has mainly been confined along beaches.

This has resulted into un-even and haphazard growth of tourism in the State depriving a large section of the people living in interior and hinterland areas from taking benefit of the growth of tourism activities in Goa.

Some of the types of tourism that are prevalent in this region are as follows:

1. **Beach Tourism:** As Goa has a 105 km coast line, the beaches of Goa are a very important tourist attraction.

From Keri in the north to Palolem in the south, Goa has many world famous beaches like Arambol, Colva (longest beach in Goa), Anjuna, Calangute, Palolem and many other small lesser known beaches where the tourists can relax, soak up the sun and feast on the local cuisine.

2. **Eco Tourism:** Goa has a very good potential for activities like trekking, paragliding, dolphin sighting, boating, and mountain climbing.

Goa has four wild life sanctuaries, one wild life national park and one bird sanctuary. Almost 60 % of the Goan



*Dudhsagar falls*



*A view of beach in Goa*

area is protected area. Around 1.25 lakhs tourist visit these sanctuaries every year. Goa has a variety of flora and fauna which could be used to attract tourists to these places. Goa also has two beautiful lakes, at Mayem and Carambolim, where migratory birds are sighted in large numbers.

3. **Health Tourism:** Medical tourism is a recent phenomenon in Goa. Many world class medical hospitals like Apollo have been started in Goa, which provide world class facilities at a fraction of the corresponding



*Mayem lake*

cost abroad. Foreigners from many developed countries prefer to come to Goa for a variety of treatment ranging from dental surgery, hearing problems, knee replacements to even heart surgery. This is a market where Goa has potential for further development and the government should take steps to see that this market can be sustained and increased medical tourism can be promoted in the future.



***Mangeshi Temple***

Goa is a land of peace and tranquility. The hinterlands of Goa, far from the noise of the city, are perfect for yoga and meditations. The peaceful villages, where the occasional lowing of a cow is the only likely pleasant attraction, are a perfect backdrop for such a type of tourism. Goa has not concentrated on this at present, but there is a huge potential for this type of activity.

4. **Heritage Tourism:** As with the rest of India, Goa too is famous for its religious places and it is a major reason why tourists all over the

world come to these places to visit them. The World Heritage Site at Old Goa is a major tourist attraction with a large number of churches such as St Cajetan, Our Lady of the Mount, St Francis of Assisi Church and Convent, Basilica of Bom Jesus, Se Cathedral, Church of Our Lady of Rosary, the Archaeological Museum, the Christian Art Museum, the ruins of the Church and Monastery of St Augustine, The Chapel of St Catherine, the Viceroy's Arch, Chapel of St Anthony Convent of Santa Monica. Besides this there



***Fort Aguada***



***Basilica of Bom Jesus***



**Tambadi Surla Temple**



**Mangroves and backwater**

are many other beautiful churches and temples all over Goa. A few kilometers away from

Old Goa, we have the famous Mangueshi and Mardol temples as well as the Saptakoteshwar temples at Narve.

Goa has an architecturally rich heritage which could be projected by the government as tourist places. Goa has many forts like Chapora, Teracol and Alorna which can be used to attract the tourists.

5. **Cultural Tourism:** Goa is a land of rich and diverse culture and people of different religions and faith (Hindus, Muslims and Christians) live peacefully together in harmony and they are famous for their own traditions and culture. Goa is famous for the Carnival, Shigmo and the IFFI. Besides, Bonderam (Divar), Sangod (Boat festival) and Taranga are also famous. Goa is known for traditional cultural dances and

songs (Mandos, Fuggdies, Goff, Godemodni and many others).

Of late Goa has been the permanent venue for International Film Festival of India (IFFI). This particular event draws tourists from various parts the world.

6. **Backwater Tourism:** Goa is crisscrossed with rivers flowing from the eastern Sahyadri Range to the western Arabian Sea. From north to south, the following rivers, Tiracol, Chapora, Mandovi, Zuari,



**CARNIVAL IN GOA: A tourist attraction**



**SHIGMO:** A popular festival in Goa

Sal and Talpona, flow windingly through villages and give support to the local economy, either for agriculture or for fishing. Sight seeing can be done from the water instead of the road. The inland cruises could have landing points near the spice gardens, churches and temples so that the tourist can see the important places too along with the scenic river trip.

Agro-eco-tourism or Farm tourism is the latest addition to this list which has a tremendous potential in Goa.

### **Agro-eco--tourism**

Agro-eco-tourism is the latest concept in the Indian tourism industry, which normally occurs on farms. It is the symbiotic association of farming sector, tourism industry and farm business. It is indeed, the economic activity that occurs when people link travel with agricultural products, services or experiences to cater to the needs of mutual demands.

It gives you the opportunity to experience the real enchanting and authentic contact with the rural life, taste the local genuine food and get familiar with the various farming tasks during the visit. It provides you the escape from the daily hectic life in the peaceful rural environment. It gives



*A view of bamboo bridge at agro-tourism centre*

the chance to relax and revitalize in the pure natural environment, surrounded by magnificent setting. Agri-tourism would also provide tourists with an opportunity to be close to where the 75% of Indians live. Real India, as we know, resides in the villages. A concept, agri-eco-tourism entails visiting a working farm or any agriculture, horticulture or agribusiness operation, for the purpose of enjoyment, education or active involvement in the activities of the farm or operation. If the first indications of the joint ongoing study by the Confederation of Indian Industries (CII) and Yes Bank are taken into consideration, the scope of agri-tourism is very promising. The concept is to tap the vast market of inland urban tourists who want to take a break from a mechanical life and enjoy the peace and tranquility of rural life in its natural abundance.

Agro-eco-tourism is the new value added agricultural business, for improving the incomes and potential economic viability of small farms and rural communities. Agri-tourism can take many forms like roadside stands or on farm direct sales, which can offer farm-fresh produce to travelers as well as interaction with growers. Agri-tourism ends farmers' isolation and offers the opportunity to make new friends and build stronger links to the community. Social skills and a scenic, clean, attractive farm are crucial for success in agri-tourism and can make the farms more ideal location for tourists.



***Multistoreyed cropping in agro-tourism unit***

Agro-eco-tourism would secure a multifunctional, sustainable and competitive agriculture, maintain the landscape and the countryside, contribute to the vitality of rural communities, respond to consumer concerns and demands regarding food quality and safety, environmental protection, animal welfare, etc.

The societal demands include contribution to agricultural employment, viability of the rural country side and regional development, agricultural landscape and cultural heritage values, good farming technologies and practices that respect animal welfare, environment protection and food security. Tourism and agriculture are usually far from people's mind when they go on their holidays. Yet the relationship between tourism and agriculture can be important and far-reaching for local communities. Impacts of Agro-eco tourism can be greatest



*A view of ancestral Goa*

in locations where tourism is growing rapidly, and where tourism offers an alternative source of income to traditional cultivation of crops and allied activities.

### **Objectives of Agro-eco-tourism**

For implementing Agro-eco tourism into an area, the objectives should include: Harmonious integration of diversified farming activities with tourism for sustainable economic returns and ecology, local employment generation, delivering aesthetic goods and services, environmental protection and management, eco-tourism industry development, infrastructure development and community development leading to socio-economic transformation.

### **Meaning and Scope**

Agro-eco-tourism is a new concept tied up with agriculture, ecosystem and tourism. It is necessary to treat these concepts independently to arrive at a meaningful definition of Agro-eco-tourism. The first

dimension of Agro-eco-tourism is the agriculture. Agriculture, earlier in the broadest sense, included activities aimed at the use of natural resources for welfare of the human being and it included all primary activities of production. However, agriculture generally means the growing and raising crops and livestock. Over the years it has emerged as an enterprise that encompasses all production activities integrated on commercial lines to maximize profits at minimum costs on bases.

The second dimension of the concept in agro-eco-tourism is related to Ecosystem which include biodiversity, organic farming systems, and ecological systems, Hence eco-tourism means making little environmental impacts as far as possible, help to sustain the indigenous populace, thinking and encouraging the preservation of wild life and habitats when visiting the places.

The third dimension, in the agro-eco-tourism, is the tourism. The International



*Model displaying rural activities*

Union of Official Travel Organization defines tourist as a person who undertakes a journey for pleasure, recreation, and temporary sojourn of not less than 24 hours and spend the money which he has brought, without seeking or taking up work or employment in the country or place of his visit. In agro-tourism, tourism is centered around agriculture which encompasses living with nature, diversity of life, enjoying the blessings of nature, agriculture production, service skills and their awareness program, the traditional rural folk life, organic farming plantations such as herbal, medicinal species, aquaria food, rearing high-tech agriculture practices, etc.

The agro-eco-tourism is centered around the ecosystem, which relates to environment friendly, community friendly, and market friendly nature of the tourism. The main value in the eco-tourism is its potential for promoting alliance, among environment and nature and conserving and developing this. Eco-tourism conserves nature, environment and sustains well being of people in rural areas. The mass tourism may not lead to ecotourism objectives. But agro tourism definitely leads to sustainable development of agro-entrepreneurs and agriculture. This is because agro-tourism spots are generally in rural areas embodied by rural life with natural resources such as forests, waterfalls, aquaculture, forest orchids etc with historical monuments and religious places. These are of



*Rural artisans at display*

small scale enterprises as compared to resorts. Similarly the agriculture in rural areas having typical characters such as plantations, silkworm areas, horticulture products, nurseries, typical houses, reservoirs, lakes, dams, tanks, sprinkler irrigations etc., handicrafts and cottage industries, weekly markets, rural bankers, deserts, trekking etc. which attract the tourists and does not lead to destruction of environment. In view of these characteristic features of agro-eco-tourism, it has wide scope. These agro-eco-tourism centers are expected to provide peace and relief from stress at less expense, less travel, food, accommodation, and recreation costs. These centers provide unique farming industry and life style with respect to culture, tradition etc.

The agro-eco-tourism can be organized in a more integrated way by using the local resources and local folklore in the agriculture farms to attract the tourists. Some agricultural activities have the capacity to absorb the tourists to the countryside and agro-eco-tourism has

scope to expand in the days to come. This industry provides the market for the products of farmer in the countryside. It generates employment during the off-season. It is very much suited to low and middle income group tourists. It satisfies both farmer and tourists. This business provides high rate of returns to the investment and recognition. Each region is having unique culture heritage folks etc. Hence, agro-eco- tourism activity can be undertaken in all the regions.

### Basic principles of Agri-Tourism

Agri-tourism should ensure the following three basic principles.

**Something for visitors to see:** Animals, birds, farms and nature are the few things which agri-tourism could offer to the tourist to see. Apart from these, culture, dress, festivals and rural games could create enough interest among tourists in Agri-tourism.

**Something for visitors to do:** Participating in agricultural operations and swimming, bullock cart riding,

buffalo riding, cooking and participating in the rural games are the few activities to quote in which tourist can take part and enjoy.

**Something for visitors to buy:** Rural crafts, dress materials, farm gate fresh agriculture products, processed foods are the few items which tourist can buy as memento for remembrance.

### Why Agro Tourism?

We all know majority of our country lives in the rural areas. And in these rural areas the activities such as agriculture, forestry, and fishery are the means of livelihood. According to Dr. M.S. Swaminathan agrarian activities will be the only sector for this country which will provide major job opportunities for youth. We all have noticed that the outlook of the present policy on Agriculture by the central government is focused on these areas. At the same time we all have observed excesses of modern agriculture technologies causing damages to the local ecology. The returns from farming are slow and low of which



*Agro-tourism centres can be source of quality plating material*

the price is determined not by the farmer but somebody else. Hence, the existing generation guides their next generation to undertake any other profession but agriculture; which has potential of quick and assured income along with dignity. The outcome of this is that the rural areas are still fumbling for survival and our ecosystems are in deserted condition.

If Agro Rural Tourism (ART) centers would come up they will automatically protect the ecology by avoiding plastics, by promoting greenery and biodiversity by creating water bodies; protecting and highlighting medicinal plants and flora and fauna. Thus, these centers will be the strong pillars of the rural India.

The constant instability of net farm incomes and the loss of jobs in rural areas have led to a human and financial capital drain from many rural areas, leaving many farming families and businesses under economic stress. As has been realized already, agriculture alone can no longer be dependent upon to provide the economic stability for rural villages



**A watch tower at agro-tourism unit**



**Tourist enjoying peddle boating**

/ towns and communities. But the integration of tourism and agriculture activities will open up a new horizon and can play the key role as new employment partners for rural communities thereby improve the economic status. Besides this, agro-eco tourism forms a potential “Alternative to routine tourism” which is “Farm based and Harmonious with nature.

Further, agro-eco-tourism can bring about many more added benefits in rural areas by way of assisting farming and other rural families to use existing resources better in order to improve income and the viability of the farm business, providing interactive opportunities to the villagers with national and international tourists right in their own places thereby enhancing understanding of the outside world, improving the infrastructure facilities and standards for tourists and local people, enriching the heritage and culture of the region, and bringing about overall transformation of rural sectors into active functional centres.



dominant activity on your farm. However, because agri-tourism is the main part of your farm product mix, it becomes your primary enterprise. It is important for you, as a farmer, to realize that agri-tourism has the potential to become whatever you want it to be on your farm. Whether you use agri-tourism as a supplementary, complementary, or primary enterprise, you must be ready to think creatively and plan effectively in order for your new enterprise to be successful.

### Concept of Agro-eco tourism

Basic concepts behind agro-eco tourism are the economic diversification and technological improvement and its extension with preservation of art, culture, wild life, natural resources in an integrated manner. Agro-eco tourism will provide an opportunity to develop tourism in ways that provide agro based products among the consumers of the nation as well overseas. Travel by individual or small groups to the agro farms and agro technology parks will give an additional



*Coconut based cropping systems*

advantage of getting broad vision on the production and management aspect of agro products parallel to enjoyment of natural environment or other tourist activity. This will create a positive impact on the socio economic condition of farmers and farm workers.

### Agro-Eco-Tourism -Benefits

- Minimizes the negative impact of present day tourism upon the natural and socio cultural environment
- Maintains the ecological balance
- Conserves the traditional cultures prevailing in the natural rural areas
- Provides a concurrent employment opportunities for local communities as a family business -

#### **Entrepreneurship Development**

- Rural development
- Reduces the gap of development, income etc between the rural and urban areas
- Accords dignity to the farming profession



*Cashew based cropping systems*



*Arecanut based cropping systems*

## Components of agro eco tourism

- **People :** Agro-eco tourism includes mutual interaction of local farmers and people paying visit and/or staying on farms to experience rural life and or learn about different farming activities.
- **Nature and education:** This is **nature-based tourism** that involves education and interpretation of the natural environment and is managed to be ecologically sustainable.
- **Cultural Products:** Agro-eco Tourism focuses on natural and cultural products while striving to achieve sustainability.
- **Social relations:** It is a relationship between tourism, the natural environment and the local community.
- **Fiscal components :** It is labour and knowledge intensive and encourages dispersion of income directly to regional areas rather than to larger

urban areas. Agro-eco tourism is an unobtrusive development **reflecting environmental values** and provides the **opportunity for economic growth** across other community based service providers. This has the potential to contribute significantly to the local, state and regional economies on a sustainable ecologically sound approach.

- **Multifarious range of tourism products:** Agro-eco tourism has the potential of being an active participant and contributor to the tourism product range.
- **Complementary functions:** It can complement existing tourism products and link with accommodation, transport and other tourism related activities and service providers.

In order to make tourism more attractive, appealing, natural, aesthetic, nutritionally sound reflection of natural resources with various technological



*Elephant ride for amusement*



*Trail in spice garden*

aspects of agriculture will be important components of agro-eco-tourism. These components will require developing either as main center or as sight scene of tourism activities. The following potential technological components are identified suitable for establishment as a new unit or to exploit existing unit with some essential alteration or improvement in the agro-eco-tourism programme.

### **1. Agro eco tourism centre**

The main feature of this center will be to establish with lodging and boarding facility alongwith wild life parks or sanctuaries, esthetic ecology or mountains hill, lakes, river with suitable agro technology suited to the area.

### **2. Agro eco tourism sight**

Agro-eco-tourism sight will be referred as a tourist sight of agro technology on commercial scale or as cottage industry or practices for livelihood support located very near to the main eco-tourism center or the road side of the main tourism centre.

### **3. Agro technology park**

The state governments are encouraging the enterprisers for agro business of different kind as cluster approach with several incentives and facility for development of agro technology parks for quality production on commercial scale, preferably for export promotion. Many private entrepreneurs are also engaged in commercial activities related to agriculture, horticulture and animal production which are very innovative, attractive and remunerative and may serve as a good source of learning and experience to the tourists of varied interest. The potential agro parks or centers could be as follow:

- Food processing park
- Bio-technology park
- Organic food centers
- Dairy cattle farms
- Poultry farm
- Vegetable farms
- Green house farming
- Spice agro-farms
- Bee keeping
- Arts & Crafts Demonstrations
- Fee fishing / hunting
- Collection of old farm machinery
- Biodiversity park
- Agro-export zones
- Watershed farming models
- Goat/sheep farms
- High Tech Crop production center
- Commercial floriculture
- Vermicomposting
- Horticulture/Forest Nursery

## Wineries

Roadside stand selling fresh farm products and craft items

Herb walks

Miniature village

Educational Tours for school children, officers and progressive farmers.

Workshops on interesting, emerging agriculture topics.

Festivals with wide publicity and sponsorship.

Antique Villages.

The agro-technology parks can be identified either alone or in combination. For instance, orchard based bee keeping farm, green house based, floriculture or vegetable production. Likewise Horti-Silvi-Pastoral or Agri-Horti-Silvi Culture System may also be a good project for agro-eco tourism.

The important farming systems covered in most of the agro-eco-tourism centres promoted and operated by interested farmers who have been blessed with strong natural resource base and enchanting scenic beauty in the hinterlands of Goa are as follows:

- Rice based farming systems
- Coconut based cropping/farming system
- Arecanut based cropping/farming system
- Cashew based cropping/farming system

- Animal based farming system
- Fish based integrated farming system

## Development of agro-eco tourism

To promote agro-eco tourism in any place of interest, a systematic approach of collective effort involving all stakeholders shall be required to achieve the purpose.

These will include:

1. Survey of existing tourism centers and sights
2. Analysis of forest area and its mapping
3. Identification of sound ecological situation rich in wild life fauna and flora
4. Identification of plant biodiversity rich location.
5. Analysis of agro ecological situation of the area.
6. Comprehensive study on the time, period and location of various fair, cultural and religious festivals of the states
7. Preparation of ecological resource map of the area.
8. Formulation of suitable project with reference to agro-technology keeping in view its techno economic feasibility either as main tourism center or as tourist sight of the tourism activities.

## Agro eco tourism development stake holders

Promotion of Agri-tourism involves some more important stakeholders namely Ministry of Agriculture and line departments at state and central governments and farmers. Promotion of Agri-Tourism needs conceptual convergence with Rural Tourism, Eco-Tourism, Health Tourism, Adventure Tourism and culinary adventures.

The efforts of a single body or agency will not be enough to achieve the successful venture of agro eco tourism in the state. There will be need of cooperation, support and involvement of the following agencies to make agro eco tourism economically and commercially viable on sustainable basis.

1. Tourism department of state and central government.
2. State department of forest and wild life conservations
3. Public works department for necessary facility of main or link roads
4. State department of agriculture, horticulture and animal husbandry
5. Department of industry
6. Stage Agricultural University
7. Central Institutes of Agriculture, Horticulture and Animal Science located in the State.

8. Private entrepreneurs.
9. Farmers, farmers cooperatives/ association
10. Financial institutions

Agri-Tourism Development Corporation (ATDC) has been established in Maharashtra to aggressively promote agri-tourism in the state. ATDC would facilitate agri-tourism initiatives by individual farmers, various private and public organizations. ATDC will provide its banner for such initiatives so that the individual farmer or various organizations can later expand their activity in this field and thereby attract more tourists. ATDC is promoting the initiative launched by Pune-based Agri Tourism Development Organization (ATDO). Agri-tourism envisages involvement of the private sector, farmers or agri-tourism service providers, based on public-private partnership. The service providers will act both as hosts and guides to the visiting tourist. In the coming years, agri-tourism would evolve as one of the fastest growing segments. Tourists are also provided with the knowledge about the best agriculture practices in areas like floriculture, harvesting, bee-keeping and dairying.

## Socio economic prospects of agro eco tourism

Agro-eco tourism is the economic activity that occurs when people link travel with agricultural products, services

or experiences. The prospects of agro eco tourism depend on the agriculture and allied sectors. Agro eco tourism will be an important source of income raising to the farmers and farm workers by creating enhanced opportunity of employment and quality production. It will be a potential business to improve the socio-economic status of the rural people of all levels whether they are engaged in farming, cattle rearing, traditional food processing, preservation of local culture and tradition, specialist in art, craft and other indigenous skill or expert of local folk, dances and music etc. Further economics of local transporters and other people linked with tourism activities will also get additional benefit.

Agro eco tourism will give an opportunity to rural people for quick and good return for their product and services. It will check migration of rural people to cities for finding job opportunities, by providing employment and agro business opportunity. It will give to rural people and farmers to charge a good amount of money for the visit and experience of their work and culture.

Agro eco tourism will create a positive impact on the understanding of local people as well as of tourists both domestic and international regarding importance of wild life, natural resources, ecology wild flora and agro biodiversity and concept of its conservation and its economic utilization in combination of traditional

as well as advanced agro technology. It is also expected that agro eco tourism center or sight will serve as a potential source of new technology development adaptation and extension among the local people, national and international tourists.

## **Difference between Agro Tourism and Eco-Tourism**

Agro-Eco tourism concept has developed due to the negative fallout of existing Tourism.

Agro-tourism includes, having people pay to visit and / or learn about different farming activities. The impact of Agro Tourism can be greatest in locations where tourism is growing rapidly and where tourism offers a concurrent source of income to traditional cultivation of crops for a farmer. On the other hand eco-tourism is nature-based tourism that involves education and interpretation of the natural environment and is managed to be sustained the ecology. It enhances the awareness and appreciation of nature. In short there are some common features like rural development and agriculture development in between the two concepts, but the borderline being blurred or - with a slight overlap.

## **Role of agriculture institutes in promotion of agro-eco-tourism**

There are around 1000 agriculture teaching, training, research and marketing organizations in the

country. Each institute is equipped with technically trained manpower infrastructure for lodging, boarding, fields and other necessary facilities which could be used for promotion of agro-eco-tourism concept. The same facility could be used for further promotion of the concept by building the capacity of the farmers, agripreneurs in agro-eco-tourism. Thus, these centres could serve as nodal centres for promotion of agro-eco-tourism concept. All the state agricultural universities, veterinary and fisheries universities, ICAR institutes, Krishi Vigyan Kendras, state, district level farmers training centres, demonstration farms and seed production farms could be brought under this concept. This would bring down economic burden of the government, efficient utilization of resources and promotion of agro-eco-tourism concept.

### Role of NGOs

The Government definitely has to play its part in providing facilities to the tourists by integrating with other Ministries. It also cannot shirk from the responsibility of not only framing rules and regulations for protecting the environment but also in implementing them strictly. Schemes should be formulated so that NGOs come forward and enter into areas where the government cannot due to its various limitations. NGOs have to come forward and take the responsibility of making India a more attractive destination for

tourists and increasing India's share in the World Tourism market by their innovativeness. The social responsibility attached with an NGO will not allow them to ignore this social aspect which is very important in the concept of Agro-Eco-Tourism. In fact all the efforts of the Government will not provide the desired results unless NGOs also actively participate in the activities concerned with Agro-Eco-Tourism. This can be possible only if the government as well as the NGOs work hand in hand for mutual benefit and for promoting Agro-Eco-Tourism.

### Scope for Agro-eco Tourism

There is a great scope to develop and promote agro-eco tourism. The earlier thinking of beach based tourism is now fast changing with pressure on land (ON SHORE). The vast forest areas are being brought under cultivation of various agricultural/ horticultural crops due to alarming pressure on land in recent years.



*Intercropping in coconut garden*

## a) Agro-Eco-Tourism Farms as Knowledge Centres on Biodiversity

Organic farming or natural farming is the principle of all these gardens. Such gardens are invariably located in valleys with perennial water streams or in the areas adjoining the rivulets and aim at taking the visitors to the natural destinations. Spice crops are the destinations in these Agro-eco farms for the visitors especially the Western or European tourists in Goa. Visitors include school children as well, for whom these gardens offer opportunity to learn and enrich the knowledge about spices and their importance. Tropical spice crops as Kokum, black pepper, clove, nutmeg, cinnamon, cardamom, allspice, vanilla, etc coupled with native fruit crops like mango, banana, jack fruit, bread fruit, etc., are incorporated in palm based farming systems or agro-forestry systems with specific orientation towards agro-eco tourism. These gardens provide the tourists or the visitors single window opportunity



*Vegetables grown at agro-tourism unit*

to see, observe, and aesthetically enjoy the wealth of spices in their natural habitat in the back drop of lush- green-forest covers with natural scenic beauty. Here visitors can not only breathe fresh air but also feel the fresh aroma of spices in their natural forms and can get the fresh, pure, organically grown spices and spice products. These gardens also function as health resorts for which visitors attach utmost importance, especially, those who come from the hustle and bustle of the metropolitan / cosmopolitan mechanical urban life. Curative function to overcome the



*Orchids for display and sale*



*Banana plantation*

## Various facilities available at Agro-Tourism centres

Name of agro tourism center	Facilities available
Sahakari Spice Farm	Food, Elephant bath, Elephant ride, Spice trip, Spice Shoppe, cashew processing unit etc
Pascoal spice village	Food, Accommodation, Boating, rafting, Elephant bath, elephant ride, cashew processing unit, Nursery, Vanilla processing, Flower production
Tropical Spice plantation	Food, Boating, Elephant bath, Elephant ride, Spice trip, Spice Shoppe, cashew processing unit, Rural artesian etc
Sahyadri Spice farm	Food, Accommodation, Massage, Spice farm trip, Rural artesian, Yoga , swimming etc
Godfreys Indian Retreat	Food, Accommodation, Elephant bath, Elephant ride, Spice trip, Boating, Bird watching, Emu farming etc
Tanshikar spice farm	Food, Accommodation, Spice trip, farm products, etc
Savoi Plantations	Food, Spice trip, Farm products, etc

mental melancholy is another feature of such Agro-eco-tourism gardens for which also visitors throng to these destinations. Cottages admixed with natural habitats of crops, fishes, livestock and herbal health care units coupled with Goan cuisine, provide the visitors comfortable stay in the midst



**Kokum**

of aroma gardens – a predominant philosophy of the Agro-eco-tourism, wherein the spice components play key role. Agro-eco tourism manifests multiple functions by way of bringing eco-friendly (natural) farming for sustainable production and tourism industry together for deriving dual flow of economic benefits.

### **b) Scope for horticultural crops**

Eco-friendly plantations like coffee, tea, coconut, areca nut, cashew nut and spices have emerged as most sought after tourist destinations with natural scenic beauty. From historical times India is regarded as the 'House of spices'. Coffee based cropping systems comprising of spices like cardamom and



*Tree hut at agro-eco-tourism unit*



*View of restaurant*



*Swimming pool at agro-eco-tourism unit*



*Relaxing by riverside*



*Making agro-tourism attracting with artisans*



*Accommodation at agro-tourism centre*

pepper are envisaged as potential agro-eco tourism destinations in Kodagu of Karnataka. Similarly, coconut and areca nut based cropping systems comprising of pepper, clove, nutmeg, cinnamon, kokum (*Garcinia indica*), Kodampulli (*Garcinia gummigutta*), vanilla, ginger and turmeric, etc are gaining increasing importance in coastal states as are the Tea based cropping systems (Tea + Pepper) else where in the country. Organic cultivation and organic recycling of farm waste for raising organic spices, Vermicomposting and livestock components are the vital activities in providing the most sought after commodities to the visitors. Climbing of arecanut and coconut palms is a great skill that imparts a rare amusement for tourists. In fact, climbing palms is a community based profession for earning livelihood and is fast dwindling due to social transformation.

Similarly, other crops like banana, jack fruit, aonla, pineapple, citrus, mango, cashew, various indigenous vegetables an array of flower crops like Champak (*Michelia champaka*), ashoka (*Saraca indica*), Cassia (*Cassia fistula*), jasmine, lotus and lilies etc add specialty appearance, besides providing commodity services.

### **c) Scope : Ecology and education**

Interspersed with waterfalls, natural streams, lakes, agro-eco farms provide opportunities for water sports of different



**Rubber plantation**

kinds, besides their utilization for agricultural/ horticultural production. These farms can be powerful centres for creating awareness among the people about conservation of soil and water resources and their legitimate use. Avenues and opportunities are also being provided to tourists for educating them on ecological farming of various agro based enterprises.

### **d) Scope : Aesthetic Pleasure**

Within this context, agro-eco tourism has gained a new level of importance as there is a growing demand from the city-based urban population to enjoy and participate in country living with expectations for physical outdoor recreation, fresh air, mental peace and tranquility. Tourists would be most delighted to enjoy the handpicked delicious fruits, vegetables, fish, prawn etc. of their choice.

This has resulted in more and more people seeking information and 'know how' on how to establish farm based tourism businesses.

## e) Scope for Policy interventions

It will also facilitate the policy makers to produce strategic Agro-eco tourism schemes and plans incorporating agriculture and nature eco-tourism for the region. Drawing of exclusive banking policies for supporting agro-eco tourism projects open up new vista and has vast scope.

## Agro-eco Tourism in Goa and Some case studies

It is expected that by the year 2020, about 27 lakhs tourists may be visiting Goa and this number might go up by the year 2030. Considering the expected rise in number of tourists, it therefore offers a vast scope of economic opportunities for people of Goa having it's direct and indirect linkages with other sectors of the economy of the State.

Paradigm shift from “on shore tourism” to “off shore tourism” is a key turning point in Goan Tourism industry that has envisaged a tremendous potential. As the carrying capacity of most of the famous beaches has reached maximum threshold level, it is imperative to shift the attention of tourists to the hinterlands which have been blessed with enchanting scenic beauty of natural forest.

A detailed survey of the existing agro-eco-tourism centers using a non-validated survey proforma was carried by the institute. A total of eight centers were visited on information on various aspects including the facilities available,

type of tourists visiting, type of cropping system, services offered, constraints and expectations from the government and ICAR institutes was collected.

Since Goa has carved a niche as internationally renowned tourist destination, the Agricultural Technology Dissemination Centre (ATDC) of this institute has taken up the promotion of agro-eco-tourism on top most priority, besides rendering the services mentioned as above. It is the endeavor of this institute to promote agro-eco-tourism in the backdrop of main stream tourism in Goa and adjoining regions.

## Services offered by ATDC for promoting Agro-Eco-Tourism

1. Sensitizing interested farmers and formulations of norms for establishing Agro- tourism units.
2. Providing new technology, new package, and innovation to farmers.
3. Promote the existing well reputed farms/plantations in Goa
4. Formulating priorities and reorienting research programmes to promote Agro- Eco- tourism.
5. Involving local people for development of rural areas as hub of agro-eco-tourism.
6. Offering guidance and helping farmers for developing spice gardens/plantations, herb garden, floriculture, biogas plant, vermin-

compost unit, rabbitry, poultry units, goatery, piggery and integrated farming units

7. Making efforts to include agro-eco-tourism centres of Goa and adjoining areas in the world tourist map.

## Agro-Eco tourism centers in Goa

Name of enterprise	Location
Sahakari Spice Farm	Curti-Ponda
Pascoal Spice Village	Khandepar, Ponda
Tropical Spice farm	Arla Keri -Ponda
Savoi Plantation	Savoi-Verem, Ponda
Sahyadri Spice farm	Pikalewadi Mollem Sanguem
Godfreys Indian Retreat	Sal-Bicholim
Tanshikar Spice Farm	Netravalim Sanguem
Raut Farm	Sal, Bicholim

### Major plantation and spice crops :

The major crop of the enterprise is coconut and coconut based multistoried cropping system. banana, areca nut, cashew, vanilla, black pepper, nutmeg, cinnamon, mango and other fruit crops like Sapota, Jackfruit Pineapple as well as medicinal plants were predominant. These crops primarily used as the sight for visitors to visit and get acquainted with its production



*Local cuisine is an attraction*

as well as other useful aspects in which visitors interested the most. On the other hand their yield contributes for direct income generation to farmers or entrepreneurs’.

### Subsidiary Unit

Along with crops these entrepreneurs’ have other units like Nursery, dairy, poultry, piggery, vermicompost, spice processing unit, cashew processing units earn monetary benefits. It also makes available the manures for nourishment of crops available in farm. Nursery as well as other products of subsidiary units are sold at the farm which generates additional income to the farmer.

### Infrastructure availability

Spending some time with nature is the ideal way to enjoy few moment in busy life. People are experiencing cool and calm nature by staying at these agro-tourism centers which provide them

to enjoy nature. Infrastructure such as restaurant are made with the coconut leaves, bamboo and other material available at farm. Residential building are constructed with all facilities inside it. Enough care has been taken to bring rural culture in and around the building to create a typical rural background.

### **Food availability**

Food is one of the special interest of the visitors visiting agro tourism centers. As food is prepared in typical Goan village style and cooked in mud pots, it has taste of its own. Food includes large varieties of delicious Goan dishes like Fish, Chicken, Vegetables and others as per demand of the visitors. Seasonal fruits can be plucked from the tree itself during the particular season .

**Special adventure:-** Elephant ride, elephant bath, boating, rafting, fishing, visit to historical places, swimming, bird-watching, yoga, massage, meditation, buffalo ride, etc. which can be only enjoyed at agro-tourism centre.

**Monitory returns:** Profit margin is excellent as this activity provides additional income besides regular farm income.

**Employment generation:** As people are required for maintenance of these agro eco tourism enterprises it has also generated some employment to locals. On an average twenty employments are



*Old houses can be a part rural heritage*

generated at agro-tourism centers for daily routine works.

**Kinds of tourist visited:** Varieties of tourist visits to these agro-tourism centers which includes domestic, foreign tourist as well as students from various Institutes for their academics.

**Hurdles in business:** As there are no fix norms as in some other state of India for agro tourism due to which some people without having proper infra structure practicing agro-eco tourism centre spoils the reputation of agro-eco tourism.



*Old machinery at display*

Availability of labour and marketing of farm produce is also one of the problems of entrepreneurs. As maximum farm are located in villages the lack of facilities like health, transport, proper publicity to agro-tourism also affect the growth of business. Natural calamities also sometimes affect the farms making loss to the centres.

### **Assistance from the Government:**

Farmers from time to time approach the various Institutes viz. ICAR Research Complex for Goa, Department of Agriculture for their queries related to agriculture and for other technical guidance for development and maintenance of agro-eco tourism centres.

**Preferences of visitors:** Visitors are mostly preferring farm visits, Goan foods, peace and silence at centres, old monuments, rural culture, adventure like boating, rafting, elephant ride, elephant bath, and yoga.

### **Promoting agro-eco-tourism**

The constant instability of net farm incomes and the loss of jobs in rural



*Rural artisans at display*

areas have led to a human and financial capital drain from many rural areas, leaving many farming families and businesses under economic stress. As has been realized already, agriculture alone can no longer be dependent upon to provide the economic stability for rural villages and communities. But the integration of tourism and agriculture activities will open up new vistas and can play key role as new employment partners for rural communities thereby improving the economic status. Besides this, Agro-eco tourism forms a potential “Alternative to routine tourism” which is “Farm based and harmonious with nature”.



*Folk dance being played*



*Place for meetings and parties*



**Restaurant at an agro-tourism unit**

Agro-eco tourism can bring about many more added benefits in rural areas by way of assisting farming and other rural families to use existing resources effectively in order to improve income and the viability of the farm business, providing interactive opportunities to the villagers with national and international tourists right in their own places thereby enhance understanding of the outside world, improving the infrastructure facilities and standards for tourists and local people, enriching the heritage and culture of the region, increasing foreign currency earning through “Rural Windows” and bringing about overall transformation of rural sectors into active functional centres.

### **Services offered by Agro-Eco-Tourism centres**

Organic production of vanilla, pepper, etc., use of dung slurry for plastering the dining arena, coconut and areca nut thatches are the special features of

Sahakari Spice Farm, while abundant tropical orchids, Bimla (*Averrhoa carambola*) avenues, picturesque riverside location, rafter water sports, fishing pleasure, availability of quality planting material of orchids, anthuriums and other ornamental plants, bird watching opportunity, swing hangs on river bank, etc offer real eco-farm pleasure at “Spice Village”. On the other hand, “Tropical Spice Plantations” has such special features as display of rural artisan and coconut handicrafts, majestic entry on bamboo bridge across the rivulet, elephant shower bath and elephant riding, organic spices, etc for the visitors. One can enjoy the hill side location of “Savoi Plantations” adjoining the traditional rice fields in valleys and Crocodiles ponds in the farm besides cool hill side breeze under palm thatchet. Traditional welcome is a pleasant moment in all these farms and makes a total departure from urban style.

Spice crops are the destinations in these Agro-eco farms for the visitors especially the Western or European tourists in Goa. Visitors include school children as well, for whom these gardens offer opportunity to learn and enrich the knowledge about spices and their importance. Tropical spice crops as Kokum, black pepper, clove, nutmeg, cinnamon, cardamom, allspice, vanilla, etc coupled with native fruit crops like banana, jack fruit, bread fruit, mango, cashew, etc., are incorporated in palm based farming systems or

agroforestry systems with specific orientation towards Agro-eco tourism. These gardens provide the tourists or the visitors single window opportunity to see, observe, and aesthetically enjoy the wealth of spices in their natural habitat in the back drop of lush- green-forest covers with natural scenic beauty. Here visitors can not only breath fresh air but also feel the fresh aroma of spices in their fresh forms and can get the fresh, pure, organically grown spices and spice products. These gardens also function as health gardens for which visitors attach utmost importance, especially, those who come from the hustle and bustle of the metropolitan / cosmopolitan mechanical urban life. Curative function to overcome the mental melancholy is another feature of such Agro-eco tourism gardens for which also visitors

throng to these destinations. Cottages admixed with natural habitats of crops, fishes, live-stocks and herbal health care units coupled with Goan cuisine, provide the visitors comfortable stay in the midst of aroma gardens – a predominant philosophy of the Agro-eco tourism, where in the spice components play key role. Agro-eco tourism manifests multiple functions by way of bringing eco-friendly (natural) farming for sustainable production and tourism industry together for deriving dual flow of economic benefits. This is very much required in states like Goa where Agrarian practices have to withstand the onslaught of Tourism industry.

### Constraints

The survey of the existing units revealed critical aspects of looking at agro-eco



*Guided tour to the farm*

tourism include unclear definition, since different components make up the agro-tourism products. Definition needs to be endorsed at a national tourism level. Agro-eco-tourism destinations are not always convenient and at times conducted in isolated areas. In such cases, lack of transport and back up services, lack of awareness among both farmers and tourists about the potential benefits, lack of basic information for financing such projects /entrepreneurs, lack of integration into the whole tourism economy, lack of market intelligence research on agro-eco-tourism, etc are the major impediments. Another bottleneck is lack of co-ordination between main stream tourism and agro-eco tourism in respect of the different components making up an agro-eco-tourism industry in a region. Hitherto, the absence of any formal training programmes pertinent to agro-eco-tourism sector has been cause for the slow percolation of its potent results among both marketers and consumers alike. The present status of agro-eco-tourism is the result of some enthusiastic farmers who have faced lots of initial hurdles in encashing the economic and ecological benefits while delivering goods and services to agro-eco tourists.

The issues which need attention for the promotion of agro-eco-tourism are :

**Publicity** – It is difficult to provide publicity to a remote agro-eco-tourism

units. Hence, either collectively such agro-eco-tourism operators can provide publicity or organizations like ITDC, State tourism development corporations, NGOs, press and tour operators can take up this responsibility

**Transport** – Reaching the remote agro-eco-tourism units is the greatest challenge due to lack of approach roads and poor transportation facilities in rural areas.

**Accommodation** – Safe and clean accommodation is must in agro-eco-tourism.

**Networking** – Networking public and private stakeholders at national and state level to assist the agro-eco-tourism operator at remote places is necessary. This network can get policy support, infrastructure and publicity to agro-eco-tourism units.

**Capacity building of farmers** – Farmer need to be oriented on maintenance of facilities, hospitality and public relation which he may not be aware.

**Safety of tourists** – Agro-eco-tourism units are located in remote areas which lack roads, medical facilities, telecommunication and sometimes threat from theft and wild animals. Hence, support of local population is must besides facilities for emergency medical care.

**Private – public partnership –** Agripreneurs, farmers' organizations, co-operatives, NGOs and agribusiness companies can take up these ventures with the help of farmers and government agencies tour operators. Transporters and hospitality industry would also benefit in the process.

### **People's Involvement**

One of the foremost advantages of eco-tourism is to involve local people in this venture. As all the activities envisaged therein relate to outdoors, basic services for the same are to be provided locally. This throws open good opportunity for the people to engage themselves in self employment be in form of providing local transport, eateries, and other provisions or even to act as guides and conductors for field excursions. It is a common observation in Goa as elsewhere that local economy improves significantly due to increased tourism activities. Many a youths can be given basic training by authorities to act as eco-tourist guides and also provided with necessary literature etc to pass on information about park to the visitors. In the entire venture, the locals can develop vital stake in the protection and management of areas thus helping create a pro-active friendly buffer around protected areas. Since local people have thorough knowledge and understanding of terrain, landscape, local routes, cultural practices etc, given the adequate training and motivation they can act as good partners

in promoting agro-eco-tourism activities. Moreover, besides visiting the places, people are also interested in knowing local customs and practices so as to have a glimpse into social fabric of people as a part of touristic experience. This can best be facilitated only by locals. Eco tourism can be very well linked to village tourism, by providing a village ambience and familiarization with local art and culture, rural artisans etc. Locals acting as guide and promotions of eco-tourism would act as interface between visitors and locals. Local art and craft also get a boost due to increased tourists interest. Thus ecotourism offers vast potential for involving people and contributing to the local economy in a big way.

### **Perspective**

Imperatives for promoting agro-eco-tourism in state like Goa are too many and urgently call for sustained efforts on the part of local government. Leads from department in promoting the activities in a time bound manner, facilitation of visitor friendly amenities in protected area, a perfect information center with committed wild life staff and launch of good publicity blitz are the essential pre-requisites to be put in place at the moment. A good co-ordination with GTDC, Tourism Deptt, tours and travel operators and involving right minded youths drawn from the villages around the park/sanctuary area equipping them with essential ingredients of training to act as effective eco-guides should

be the foremost step taken in this direction. As India marches faster on the path of development in the coming years, the intrinsic values of our natural endowments such as forestry and wildlife would go up significantly and societies would begin to put a premium on the same. In fact India with its uniquely rich-bio-cultural diversity heritage, and varied eco-systems in all poised to take to altogether new dimension in coming years and we should be ready to gear our commands to meet such expectations from the sector.

There is great scope to harness agricultural activities to promote Agro-eco tourism in harmony with nature and promote enhanced income generation in rural areas. There is a need to fast track agriculture and nature (eco) tourism products to the market to demonstrate to regional communities, the potential benefits of these products. More emphasis needs to be given for creating awareness in the regional communities of opportunities and avenues for entering the tourism industry and develop resources for training, education and promotion. Encouraging partnerships between tourism associations, cooperatives, non-governmental organisations and others who wish to be involved with agriculture and nature (eco) tourism will go a long way in the development this field thereby realizing the potential economic and ecological benefits in future.

Agrotourism can help in in-situ conservation of animal and plant genetic resources. Concerted efforts are therefore needed to identify interesting animal breeds and plant varieties and explore their potential for agro-tourism. Traditional knowledge need to be gathered on the management and use of these breeds and varieties. This will help to raise the population's awareness of the value of agrobiodiversity, and will be indispensable for the long-term conservation of diversity.

Government has to play a very important role if it really wants to promote Agro-eco-tourism and at the same time improve the ecology. Its role in formulating regulations for wild life, forests and coastal line, preventing the exploitation of local residents by big business houses, seed certifications, funding R&D, providing subsidies, conforming to minimum standards and dealing with the negative impacts of tourism expansion (social and environmental) will determine the future path of agro-eco-tourism. Although academic and research institutes have not fully analysed the agro-eco-tourism concept, it is imperative to utilize this tool to conserve, develop, research, educate and market the agro-biodiversity, technology development and sustainable issues. Non-governmental organizations have a role to assist the government, private sector and communities in implementing, monitoring and evaluating responsible tourism.

## Agro-tourism initiatives at the Institute



*ATDC building at Institute premises*



*View of Agro-Eco-tourism cell*



*View of Agro-tourism unit at the Institute*



*Facilities for Agro-tourism promotion at the Institute*



*Vegetables grown at the Institute*

## Suggested Tourist Routes in Goa incorporating Agri-eco-tourism sites with main stream tourism

### PANAJI (Starting point)

Old Goa churches	Diwar Island	Dr Salim Ali bird sanctuary
St Augustine Tower	Viceroy palace	Chodan
Archeological museum	Norway temple	Mangrove areas
ICAR Research Complex for Goa		Paddy fields
Mangeshi		Mayem lake
Mardol		
Farmagudi Fort, Temples	Old Goa churches	
Shantadurga Temple	Marcel	
Goa Dairy	Ganapati temple, Khandola	
Sahakari Spice Farm	Laxmi Narayan Temple	
Pascoal Spice Village	Savoi Plantation	
Molem	Anant Temple	
Sahyadri Spice Farm	Tropical Spice Plantation	
Bhagwan Mahavir Sanctuary	Goa Dairy	
Dudhsagar falls	Ponda	
Tambdi Surla Temple		

### PANAJI (Starting point)

Panaji (Starting point)	
Mapusa (Friday sandy)	
Bicholim	Cashew processing factory, Pottary, Brass Lamp making
Sanquelim	
	Vithal temple, Datta Temple
	Harwalem falls, Caves
	River
Valpoi	

### Margaon (Starting point)

Ancestral Goa, Lotoulim  
Ponda

Chandor  
Biggest house in Goa  
Jambavalim  
Damodar temple

Sanguem  
Salaulim dam  
Botanical garden  
Neturlim  
Wildlife sanctuary  
Bubble tank

### Some useful information

In order to establish agricultural enterprises information may be sought from the following:

#### Bee Keeping

- Central Bee Research Institute  
Directorate of Beekeeping  
Khadi and Village Industries Commission  
1153, Ganeshkhind Road,  
Pune 411 016.  
020 25655351 / 020 25675865  
020 27170770

#### Butterfly gardens

1. Shillong Butterfly Museum  
Jaiaw Road  
Shillong, Meghalaya  
Website: <http://www.india9.com/i9show/Butterfly-Museum-28471.htm>
2. Butterfly Park, Bannerghatta National Park  
Bangalore  
Karnataka

#### Mushroom

- Directorate of Mushroom Research (Indian Council for Agricultural Research)  
Chambaghat,  
Solán – (HP) 173213 India

## Sericulture

- Director,  
Directorate of Sericulture, Govt. of Maharashtra,  
M.S. Handloom Corporation, Administrative Bldg,  
1st Floor, Behind St. Gini,  
Umred Rd.  
Nagpur-440 009  
Maharashtra.  
Off:0712-2714334/2711353.
- Commissioner of Cottage & Rural Industries, Govt. of Gujarat,  
Udyog Bhavan,  
Block No.6, Gandhi Nagar-382 011, Gujarat,  
Off:079-23250700,  
Fax:0172-2582595
- Commissioner for Sericulture  
Development &  
Director of Sericulture,  
Govt. of Karnataka, 5th floor,  
M.S. Bldg., Dr. Ambedkar Veedhi,  
Banbgalore-560 001, Karnataka  
Off:080-22323477,  
Fax:080-22353881

## Training on Agribusiness

- Co-ordinator, Agriclincs and Agribusiness Centres Cell  
National Institute of Agricultural Extension Management (MANAGE)  
Rajendranagar,  
Hyderabad – 500 030  
Andhra Pradesh, India  
Telephone (Direct):40 – 24015399  
(Office) :40 – 24001266  
(Fax) :40 – 24001267 E-Mail: [agripreneur@manage.gov.in](mailto:agripreneur@manage.gov.in)

## Agro-Eco Tourism Centers in GOA and MAHARASHTRA

### Sahakari Spice Farm

Sahakari Brothers  
Curti, Ponda, Goa  
Phone : (0832) 2312394  
Fax : (0832) 2319826  
Mobile : 9822121636  
info@sahakarifarms.com  
www.sahakarifarms.com



### Savoi Plantation

50, Mardol Ponda Road,  
Savoi-Verem,  
Ponda-403401, Goa 403115  
Phone : (0832) 2340272  
Mobile : 09423888899 / 09823340272  
Telefax: 0832 2340561



### Pascoal Spice Village

Mr. Milagris Fernandes  
Khandepar, Ponda, Goa  
Phone : (0832) 2344268  
Mobile : 9422055455 / 9923749059  
spicevillage26@gmail.com  
www.pascoalfarm.com



### Sahyadri Spice Farm

(Canara Food Processors Pvt. Ltd.)

Shri. S. V. Pikale,  
Pickalewadi, Mollem, Goa  
Phone : (0832) 2612227



### Raut Farms

Dodamarg, Goa  
Mobile : 09423322981



### Tanshikar Spice Farm

Mr. Chinmay Tanshikar  
Netravali, Sanguem, Goa  
Phone : (0832) 2608358  
Mobile : 09421184114  
tanshikarspicefarm@gmail.com  
www.tanshikarspicefarm.com



### Godfrey's Indian Retreat

Mr. Godfrey Lawrence  
Sal Village, Assanora P.O., Bardez, GOA  
Mobile : 09011653338  
safari@goaecoretreat.com  
www.goaecoretreat.com



### Tropical Spice Plantation

Mr. Rohidas alias Anna B Satarkar  
H.No - A- 14 Arla bazaar,  
Keri, Ponda, Goa  
Phone : (0832) 2340329  
Mobile : 8007382590  
tropicalspsice@rediffmail.com  
www.tropicalspsiceplantation.com



### Saguna Baug

Mr. C.H. Bhadsavle  
Malegaon, Taluka - Karjat, District -  
Raigad, Neral, Maharashtra 410101  
Phone : (02148) 238 438  
Mobile : 09370702932 / 09209313174  
contact@sagunabaug.com



## Heera Recreation and Entertainment

Vazri, Dhargal, Pernem, Goa.

Phone : (0832) 2263229

Mobile : 9822102849

[www.heerafarmgoa.com](http://www.heerafarmgoa.com)



## Rustic Farm

Dongruli Village,

Thane, Valpoi, Sattari, Goa

Phone : (0832) - 2379191/92

Mobile : 9405181123

<http://www.rusticretreat.co.in>



## Atreya Vedic Farm

Bondumol, Mollem, Goa.

Phone : (0832) 2340272

Mobile : 7350012000

[atreyavedicfarm@gmail.com](mailto:atreyavedicfarm@gmail.com)



## Jungle Village

Collem Market, Collem, Goa.

Phone : (0832) 2600196



## Sai Organic Farm and Herbarium

Savoi-Verem, Ponda, Goa.

Phone: (0832) 2340308

[www.](http://www.tropicalspiceplantation.com)

[tropicalspiceplantation.com](http://www.tropicalspiceplantation.com)



## Parvati Madhav Park Plantation

Keri Village,

Ponda, Goa.





हर कदम, हर डगर  
किसानों का हमसफर  
भारतीय कृषि अनुसंधान परिषद

*AgriSearch with a human touch*

