ENHANCEMENT OF AGRO TOURISM IN KONKAN

AGRO TOURISM INDUSTRY IN KONKAN

SUBMITTED BY

AQSA GAZANFAR MIRAJKAR

A REPORT

Submitted in partial fulfilment of the requirements for the degree of Bachelor of Architecture.

University of Mumbai

2020-2021

AIKTC
SCHOOL OF ARCHITECTURE

CERTIFICATE

This is to certify that the Design Dissertation titled AGRO TOURISM INDUSTRY IN KONKAN

is the bonafide work of the student AQSA GAZANFAR MIRAJKAR from Final Year B. Arch of

AIKTC School of Architecture and was carried out in college under my guidance.

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Name of the guide: Prof. RAJ MHATRE

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1. ABSTRACT :

Konkan region is the land of wonders and scenic beauty. One can always find incredible views in the heart of Konkan. It has natural beauty with oceans, rivers, farmlands, green forests, mountains and mineral rich rocks and soils. But, it is heartbreaking to see that the benefit of such a resourceful land goes to waste as the inhabitants of this place are devoid of these resources. The farmlands of each individual does not yield enough income for their prosperity. Also, the forests and the oceans do not bridge the gap of their necessities. Thus, the people of Konkan migrate to big cities leaving their beloved motherland. In these cities, they have to live in miserable conditions and poverty. They struggle all their lives to just survive. That's why if these people attract tourism in their own villages they might be able to gain income from it. But that also doesn't compensate the loss of income. So, they can process and produce goods or products from the yield of their farms or seas through which their products value and price increases immensely leading to profit. In this way they have jobs and work to do instead of going to cities in search for employment. This way they can easily live their lives in their villages and also become economically stable.

2. INTRODUCTION :

"The future of India lies within its village"

- Mahatma Gandhi

To preserve the natural heritage of Konkan region and to develop the socio-economic status, strategic planning of agro tourism as a style of rural tourism could be a need of hour. The crisis of mass tourism has led to the need for seeking out alternative varieties of tourism in worldwide. At the identical time, the crisis in intensive agriculture has led to the requirement for seeking out alternative types of agriculture. Increasing problems in the primary sector in India create a negative approach of the farmers regarding agriculture. Hence there's a need to create an additional source of income using existing agricultural land and agricultural occupation. Many farmers have already turned to agro-tourism as a source of additional farm income and opportunities. There are various profits from the event of agro-tourism: it's going to strengthen the native budget, create job chances and new businesses; industry, develop and promote training and certification programs to introduce youth to agriculture and the environment. Agrotourism is often defined as a "range of activities, services, and amenities provided by farmers and rural people to draw in tourists to their area to come up with extra income for his or her business".

2.1 BACKGROUND STUDY :

KONKAN:

Konkan Region is one in the six administrative divisions of Maharashtra State in India. Konkan is the west division in the state, with an administrative headquarters in Mumbai which is also the state capital as well as finical capital of India. Konkan region is a long strip extending for about 720 km in the north-south direction and is a diverse physiographic region of the State. Konkan region forms divided topography and its usual East-West extension is 40-50 km which varies significantly within the coastal lowland and decreased from north to south. Width of the region reduces as one proceeds toward south. The broadest stretch is about 110 km in Ulhās river basin in north Thane District. Elevation of most of the Konkan region lies below 200 m ASL. Konkan region of Maharashtra can be appropriately divided into North Konkan, Middle Konkan and South Konkan. These division is based on Physio-climatic features of the region. The Konkan region of Maharashtra comprises of Palghar, Thane, Raigad, Ratnagiri, and Sindhudurga districts. Goa though administratively a separate state, to some extent a cultural part of Maharashtra.

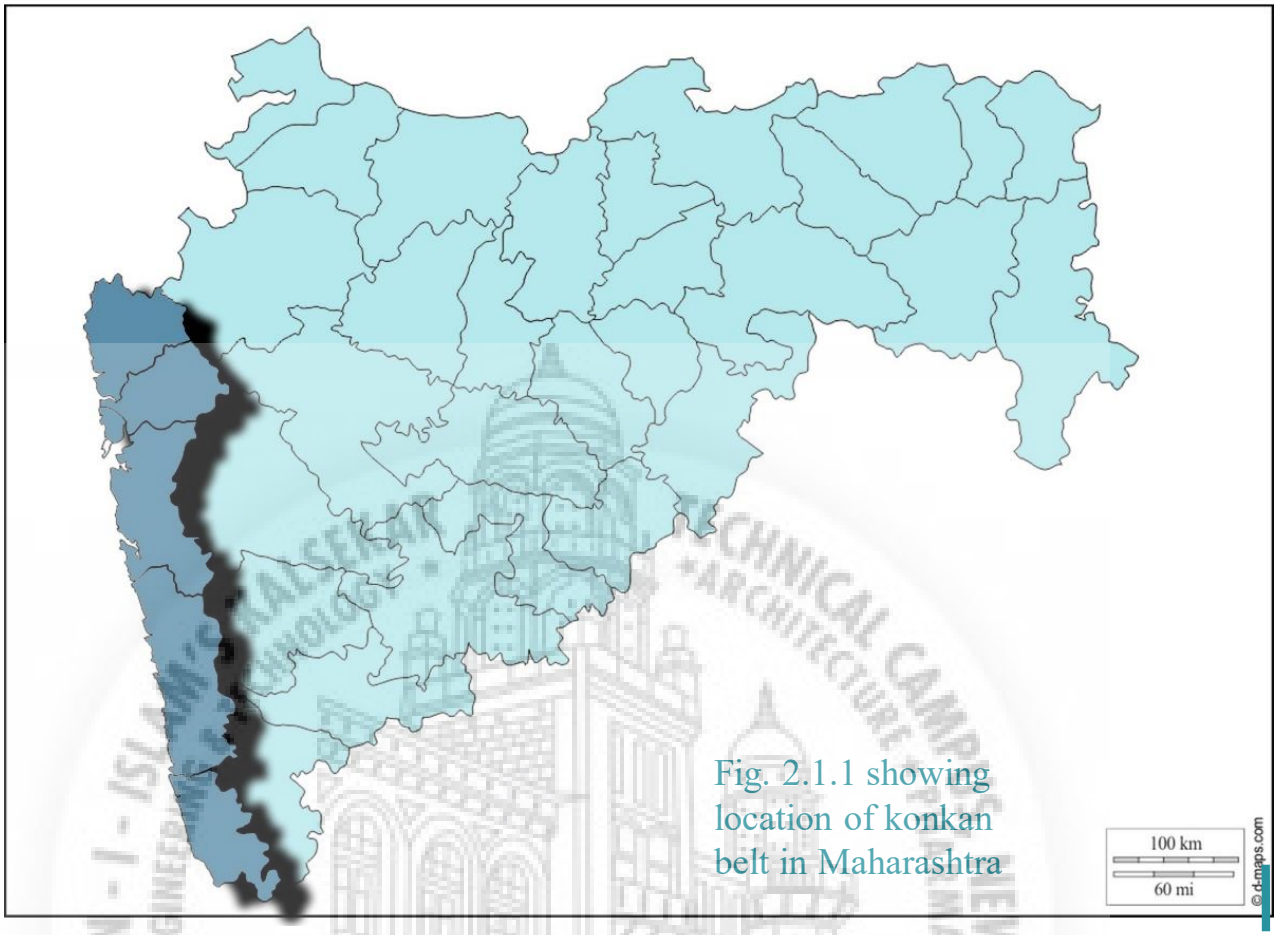


Fig. 2.1.1 showing location of konkan belt in Maharashtra

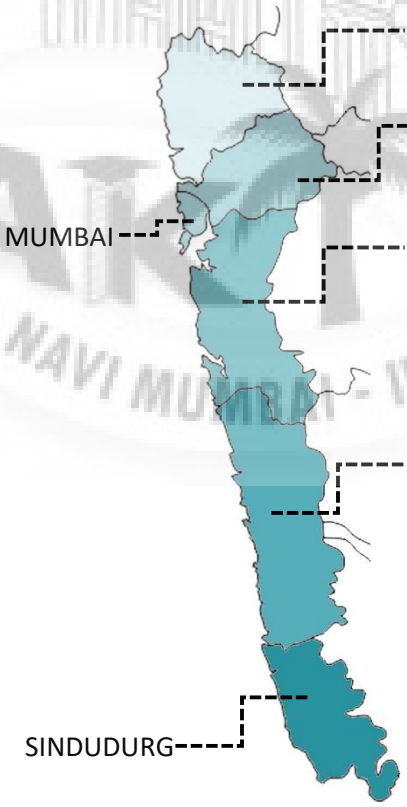
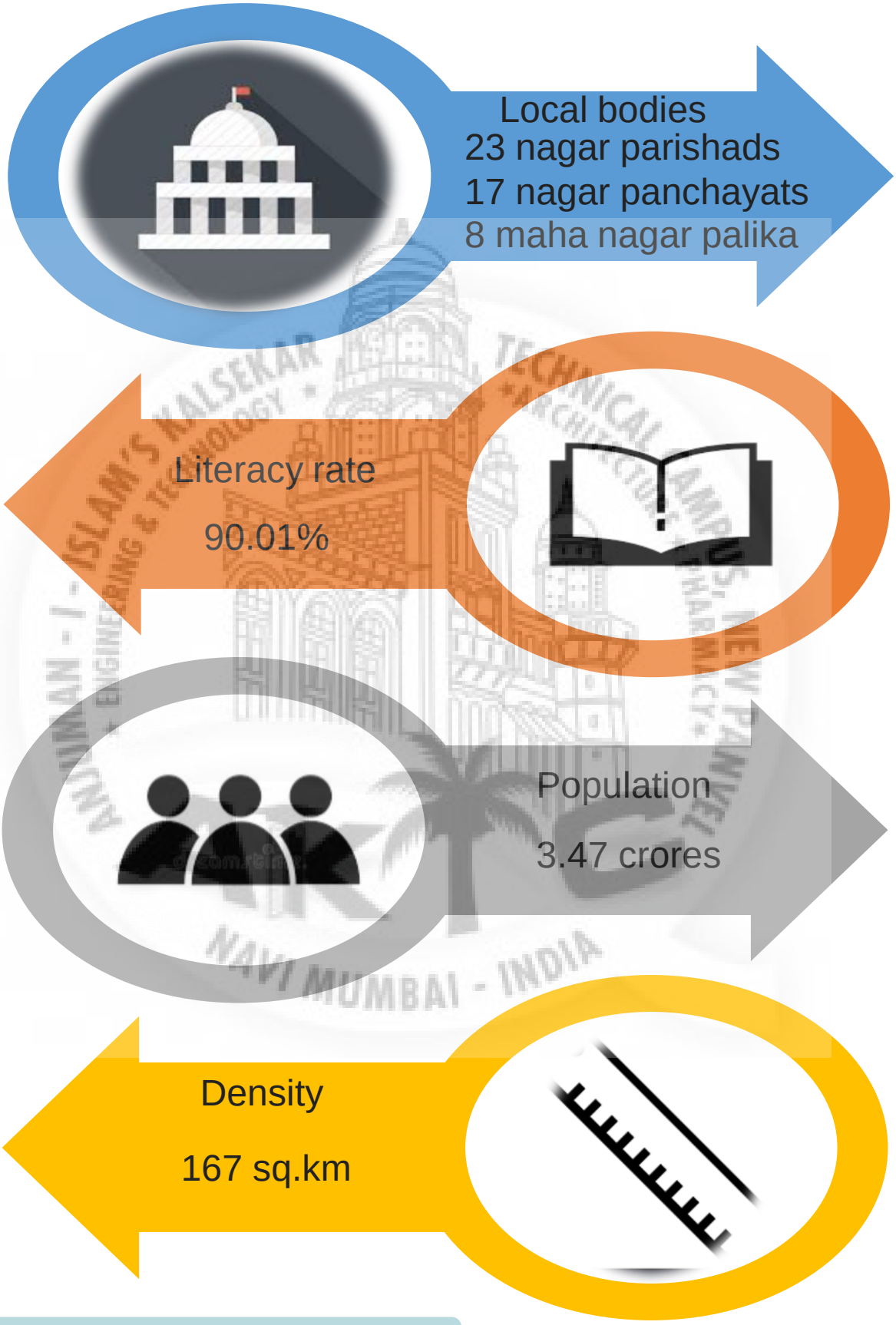


Fig. 2.1.2 indicating various districts in konkan belt

HIGHLIGHTS OF KONKAN REGION



TOURISM:

Tourism is now well known as an device of growth in the various economies in the world. Several countries have transformed their economies by developing their tourism potential. Tourism has excessive ability to produce large-scale employment and additional income sources to the skilled and unskilled. Today the idea of traditional tourism has been changed. Some new areas of the tourism have been developed like Agro Tourism. Advancement of tourism would bring many direct and indirect profits to the people. Agro-tourism is a method of sustainable tourist expansion and multi-activity in rural areas through which the tourist has the chance to get aware with agricultural areas. Agro-Tourism is supportive to the both farmers and urban peoples. It has provided an surplus income source to the farmers and employment opportunity to the family members and rural youth.

Agro-tourism is a way of sustainable tourist expansion and multi-activity in rural areas through which the visitor has the chance to get aware with agricultural areas, agricultural occupations, local products, traditional food and the daily life of the rural people, as well as the cultural elements and traditions. Moreover, this commotion brings visitors closer to nature and rural activities in which they can participate, be entertained and feel the desire of touring. Agro-tourism is an pioneering agricultural activity related to tourism and agriculture both. It has a great capacity to generate additional source of income and employment opportunities to the farmers. Maharashtra is one of the major tourist centers in the India and there is large opportunity and great potential to develop agro-tourism.

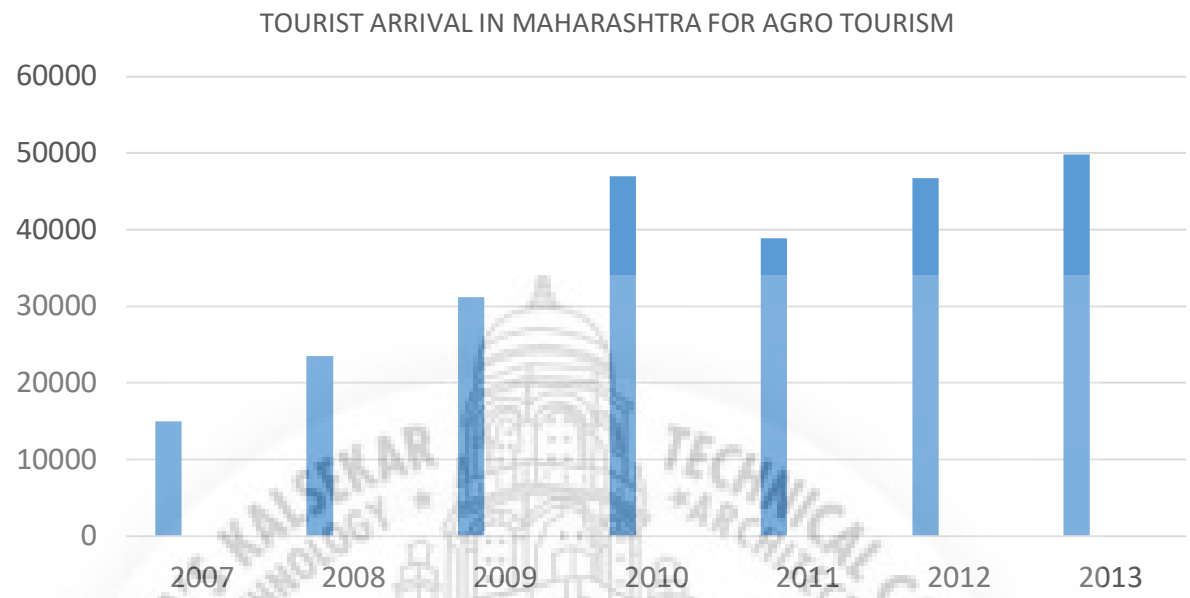


Fig. 2.1.3 Showing tourist statistics in Maharashtra

CLIMATIC ZONE OF KONKAN:

Maharashtra has diverse climate which makes it suitable to cultivate a wide range of crops. In Konkan zone, mostly Laterite and acidic coarse, shallow soil is found. In western ghat zone light, laterite and reddish brown soil is found.

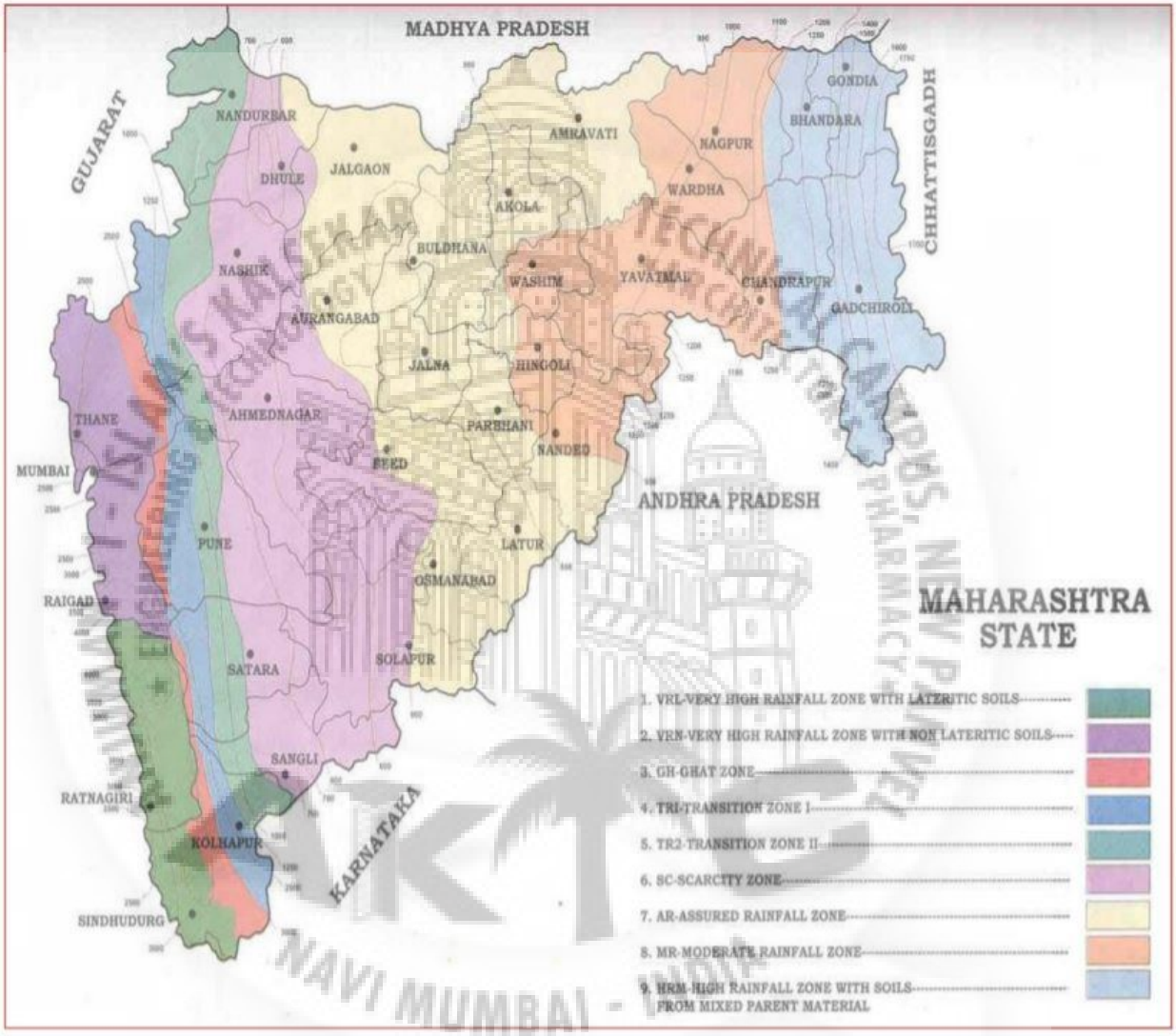


Fig. 2.1.4 showing climatic zones of India

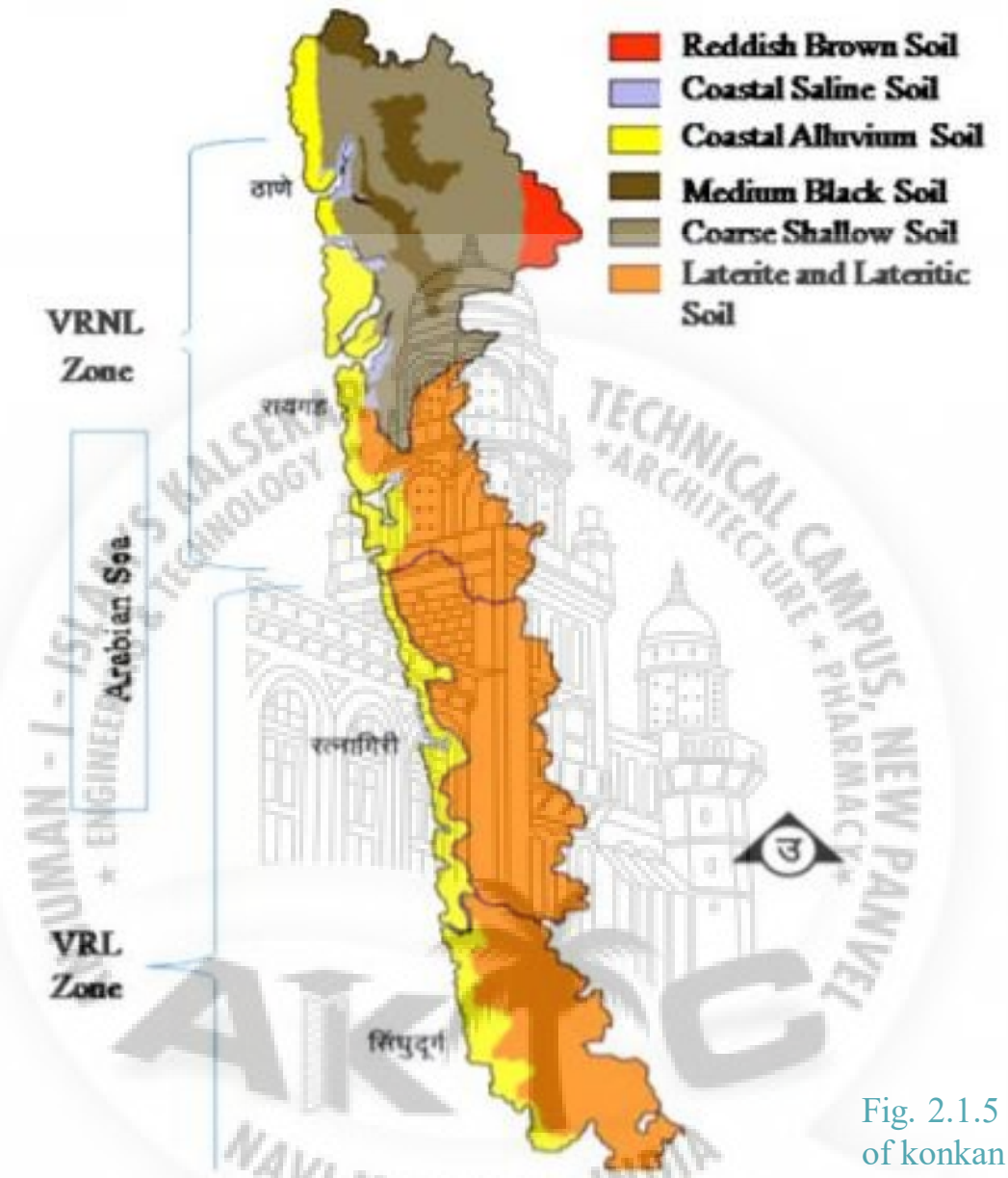


Fig. 2.1.5 soil map of konkan belt

LAND USE OF KONKAN:

Maharashtra is the top economic performers of India. Agriculture is the important economic activity of the State. It accounted for 12.4% of the GSDP at current prices in 2011-12 while the share in providing employment was55%. The State has 234 lakh ha of land under cultivation and area under forest is 52.1 lakh ha.

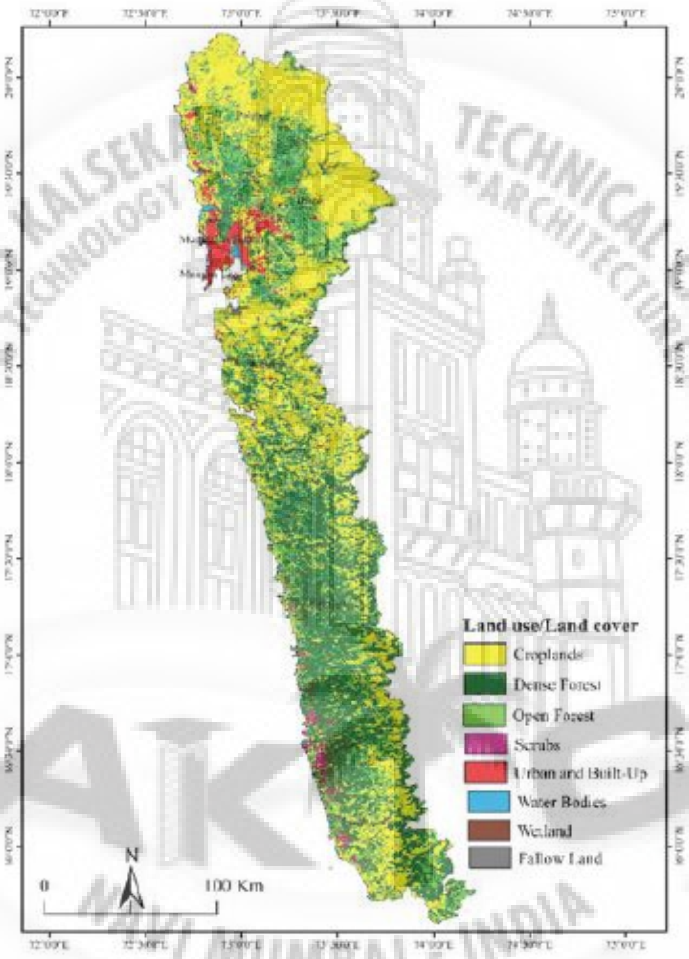


Fig. 2.1.6 land use map of konkan belt

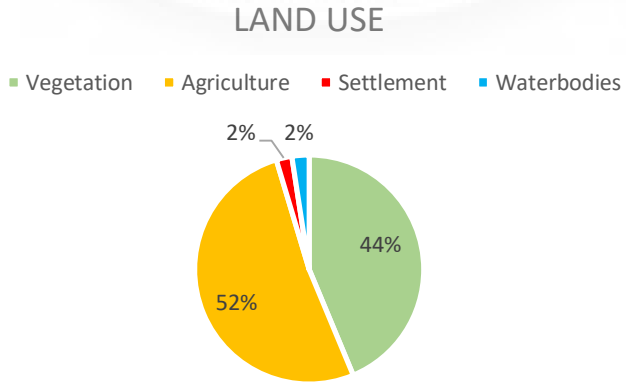


Fig. 2.1.7 percentage of land use

VARIOUS CROPS GROWN IN VARIOUS PART OF KONKAN REGION:

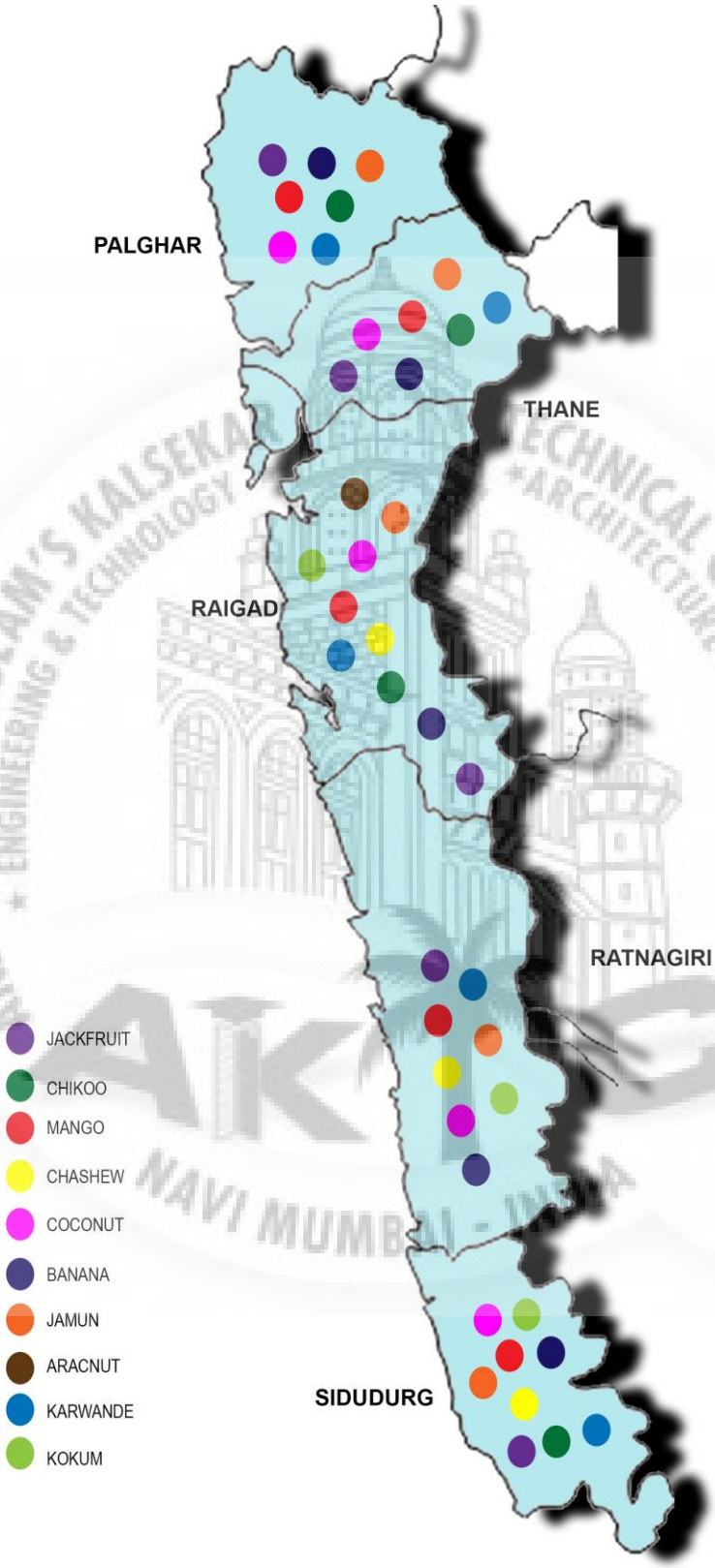


Fig. 2.1.8 Map showing major crops growing in Konkan

AREAS OF AGRO TOURISM IN KONKAN :

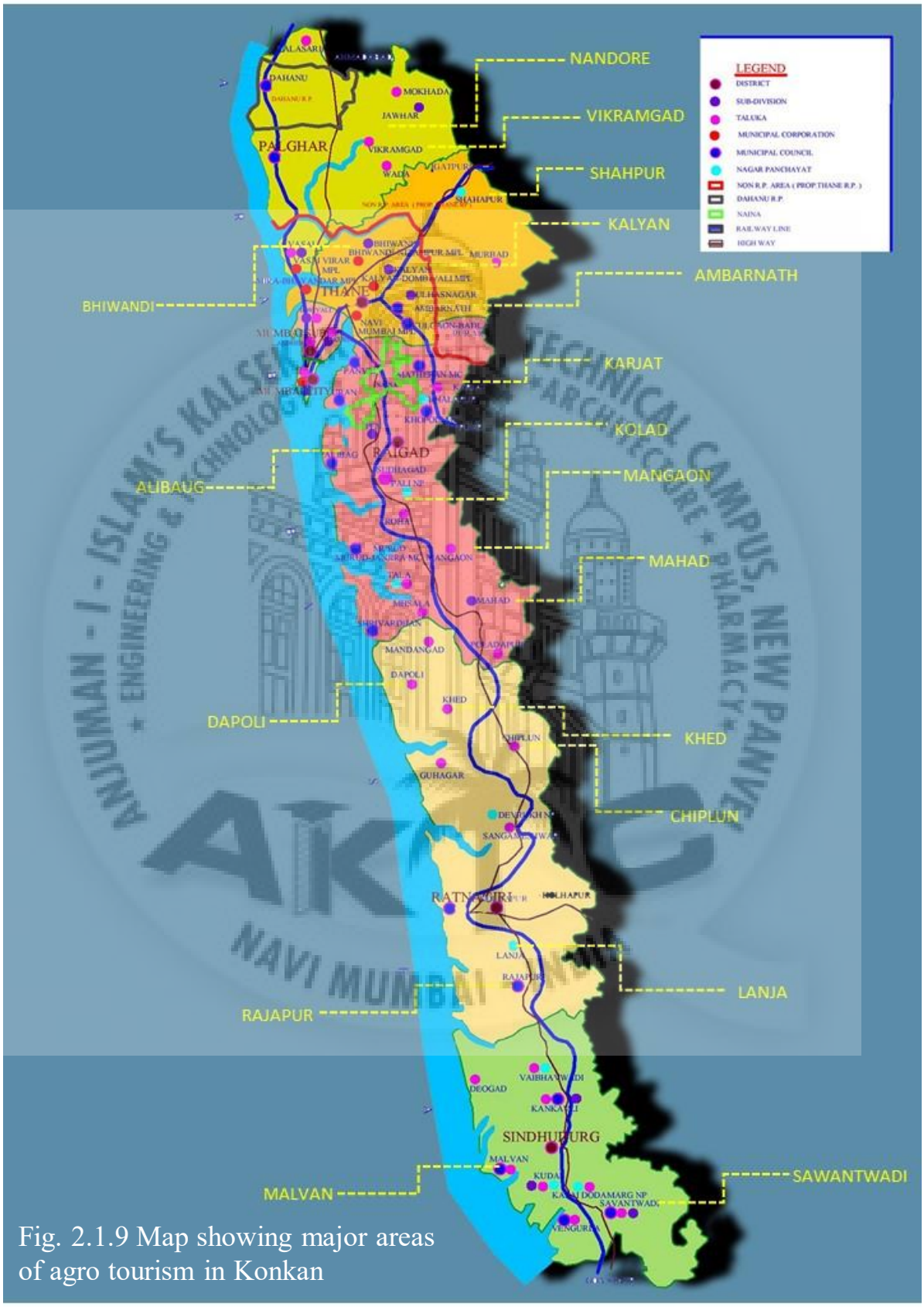


Fig. 2.1.9 Map showing major areas of agro tourism in Konkan

2.2 AIM:

To enhance agro tourism in Konkan region by bringing innovation in terms of agro industry to generate local economy.

2.3 OBJECTIVE:

- To study about konkan region and its topography.
- To study about agriculture patterns and crops grown in konkan.
- To study the scope and need of agro tourism in konkan.
- To study about agro tourism and its importance in rural areas.
- Understanding different crops grown and alteration in the products.

2.4 SCOPE:

- To enhance tourism in konkan.
- To analyze use of resources in a productive ways to generate economic stability in konkan.
- To study of local materials along with some modern technologies in construction to preserve the essence of konkan.
- To develop sense of community among the people.
- To improve economy and lifestyle of rural people.

2.5 LIMITATIONS:

- The study deals with specific region that is konkan.
- The study does not involve enhancing of any particular community or tribes in particular of konkan.
- The study does not emphasis on any particular art and craft of konkan.

2.6 RESERCH METHODOLOGY :

BACKGROUND STUDY

(Konkan overview)

↓

AIM, OBJECTIVE, SCOPE

(For clarity in design)

↓

LIMITATIONS

(To decide exact limit to project)

↓

LITERATURE REVIEW

(Reading articles, journals for understanding about the proposal)

↓

CASE STUDIES

(Understanding spaces, activities, program, etc. from various proposals around)

2.7 HYPOTHESIS

Industrial expansion not only depends on improvement and wealth expenditure in an country, but also it needs availability of raw materials and suitable physical infrastructural facilities. Agriculture is one among the main staple providing sector for major industries. Agro-based industries can play a vital role to a large extent in solving the matter of poverty, unemployment and inequality in India and may significantly contribute to the overall development of the economy by efficiently utilizing the local raw materials which consequently may lead to increase of gainful employment opportunities to poor people mainly landless, marginal and tiny farmers.

Combining tourism with such industrial activity could be a way to enhance sustainable tourism in konkan. Visitors can induce awareness on both agriculture as well as tourism activities in the region. Tourism is beneficial both farmers and tourist and also provides surplus income to farmers and generate job opportunities. This new concept of unification of both industry and tourism can be a instrument for generating local economy on larger scale.

3. LITERATURE REVIEW:

3.1 INTRODUCTION TO AGRO TOURISM :

Agro tourism. The two terms have the same meaning and both consist of two parts agro or agri and tourism. The prefix agro derives from the Latin term ager which means field while agro comes from the Greek term agro, which means soil, while tourism is a form of active recreation away from one's place of residence and inspired by cognitive, recreational and sports needs. The combination of agro and tourism resulted in the organization of a new word that means human tourism which aims to become familiar with farming activities and recreation in an agricultural environment. Agro tourism can be defined as a "range of activities, services and amenities provided by farmers and rural people to attract tourists to their area in order to generate extra income for their business".

Today the idea of traditional tourism has been transformed into Agro Tourism. Tourism is a socio-economic phenomenon that has become the world's largest and fastest-growing industry. It is one of the most significant social force in the world. Almost every on the earth is affected by tourism. Agro tourism is more and more identified as a important strategy which will contribute to agricultural evolution through change of farming activities and providing opportunities to rest, relax, enjoy, and study bout farming for the visitors.

3.2 HISTORY OF AGEO TOURISM :

Agro tourism has been for much longer than anyone might think. Agro tourism also known as agro tourism, and the history of it was debated by the expert from University of Tennessee Extension Publication by in view of it as Agritainment. Agritainment (agro tourism and entertainment farming initiatives), created in 1800s, when families visited farming families in order to outflow from the city and involve in the farming. Mostly they don't really took the holiday as a part of the agro tourism because their main focus is to relief tension and get some rest during that time. Visiting other country become more popular with the extensive use of the vehicle in 1920. The used of car and vehicle make them easily to move and to discover the other place that required them to do some journey. That make the agro tourism become more popular and it increases not only the agro tourism industry but also the economy of the country because of many people have their own transportation. These demands for rural recreation lead to widespread interest in horseback riding, farm petting five zoos and farm nostalgia during 1960 and 1970. Farm vacations, bed and breakfasts, and commercial farm tours were popular in the 1980 and 1990.

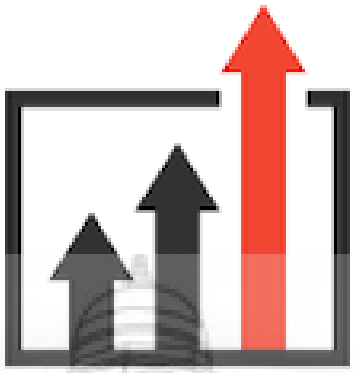
3.3 IMPORTANCE OF AGRO TOURISM :

Agriculture is the most important occupation in India including in Maharashtra. But, today it becomes unsuccessful due to the irregular monsoon, price waver of Agro-products, and some internal failing of the agriculture sector. Hence, there is a need to do some innovative activities in agriculture, which will help farmers, rural people.

Agro-tourism is a commercial enterprise that combines agriculture and tourism on a working farm, rich or other agribusiness operation. A term, Agro-Tourism is a fresh look of tourism. An agro-tourism is farm supported business that is open to the public. These special agro-tourism destinations mostly offer things to see, things to do, and produce or gifts to buy, and are open to the public.

Agro-tourism is defined as “Travel that combines agricultural or rural settings with products of agricultural operations–all within a tourism experience”. According to Mr. Pandurang Tavare (ATDC, Pune) “Agro Tourism is that Agri-Business activity, when a native farmers or person of the area offers tours to their agriculture economic voices farm to allow a person to view them growing, harvesting, and processing locally grown foods, such as coconuts, pineapple, sugar cane, corn, or any agriculture produce the person would not encounter in their city or home country. Often the farmers would provide a home-stay opportunity and education”.

3.4 ADVANTAGE OF AGRO TOURISM :



Agro-Tourism has the prospective to change the profitable face of traditional agriculture. The benefits of agro-tourism improvement are multiple. It would bring many direct and indirect profit to the farmers and rural people. Some of the benefits are the following:-

- Work opportunities to the farmers including farm family members and youth
- Additional income sources for the farmers to complain against income variation.
- The cultural transformation between urban and rural people including social moral values
- Farmers can improve their standard of living due to contact with urban people
- Benefits to the urban people, they can understand about rural life and know about the agricultural activities
- It supports the rural and agricultural improvement process
- Help to reduce the concern on the other traditional tourist centers.

3.5 STATUS OF RURAL AND AGRI-TOURISM INTERNATIONALLY WITH SPECIFIC FOCUS ON EUROPE :

Most of the European countries pay lots of attention to Agricultural and Rural tourism. The development of Agricultural and Rural tourism is hard to measure because few countries collect statistics in a way, which splits purely Agricultural and Rural from other forms of tourism. The idea of Rural and Agro-Tourism advanced in 80's in Europe, the joining farms have doubled in countries like Italy, the United Kingdom, and France.

The amount of Rural and Agro-Tourism housing units exceeds 600.00. within the middle of the 90s, 12 European countries (Belgium, Denmark, Greece, Netherlands, Portugal, Spain, Ireland, Great Britain, Italy, Austria, France and Germany had fairly 100.00 farm enterprises comprise with different tourism activities. it's obvious that almost all of the European countries have encouraging approach towards Agricultural and Rural tourism development appreciations to the benefits this strategy has on Agricultural and Rural areas and their overall development.

3.6 AGRO TOURISM IN INDIA :

Indian tourism industry is growing at 10.1%. the planet Tourism organization has estimated that the tourism industry is growing at the speed of 4% a year which by the year 2010 there'll be quite one billion tourists visit various parts of the planet. But Indian tourism industry is growing at the speed of 10% which is 2½ times quite the expansion rate at global level. By presenting Agro-tourism idea, not only present rate is constant but also this value addition donates to further growth. India has varied culture and topography which give ample and unlimited scope for the expansion of this business. India has diverse agro-climatic situations, diverse crops, people, culture, deserts, mountains, coastal systems and islands which propose better possibility for raise of all seasons, multi-location tourism products.

Increasing number of tourists preferring non-urban tourist spots. Hence, there's possibility for upgrade of non-urban tourist spots in interior villages by founding Agro-tourism centers. But, satisfactory facilities and publicity are must to shop such centers.

Some of the famous and major agro-tourism destinations in India are as under:

- Dewalokam Farm stay Retreat, Karimannoor, Kerala.
- Vanilla County, Kottayam District, Kerala.
- Maachli and Dwarka Farm stay, Sindhudurga Region, Maharashtra.
- Dudhsagar Plantation and Farm stay, Goa.
- Destiny Farm stay, Ooty, Tamil Nadu.
- Acres Wild Cheese making Farm stay, Coonoor, Tamil Nadu.
- Banyan Tree Farm stay, Coimbatore, Tamil Nadu.
- Green Dreams, Coorg, Karnataka.
- Citrus County, Hoshiarpur, Punjab.

- Prakriti Farms, Rupnagar, Punjab.
- Thathagata Farm, Darjeeling, West Bengal.
- The goat Village, Garhwal District, Uttarakhand.
- The Country Retreat Farm stay, Pail, Rajasthan.

Fig. 3.6.1 Map showing agro tourism center in Maharashtra

3.7 PROBLEMS OF AGRO TOURISM IN MAHRASHTRA :

Maharashtra has a better potential of the improvement of the agro-tourism centers due to the good environmental conditions. But due to some difficulty in the process of agro-tourism improvement in the state. Major provocation and difficulty are follows;

- Deficiency of appropriate knowledge about the agro-tourism
- Poor interactive skill and lack of business perspective of the small farmers
- Lack of money to improve basic infrastructure for the agro-tourism
- Unawareness of the farmers about such type of activities
- Presence of chaotic sector in the Agro-Tourism industry.
- Guaranteeing cleanliness and basic supplies considering urban visitors
- Many of farmers have small size property, low quality land and little or no right of entry
- 148 of the 355 Talukas in the state are reliably drought prone

3.8 POTENTIAL OF AGRO TOURISM IN KONKAN :

Surrounded by the Sahyadri hills on the east and the Arabian Sea on the west, the coastal strip of Maharashtra is known as the Konkan Region. In history Konkan has been land with dense forest cover and a landscape decorated with beautiful beaches, picturesque hamlets, paddy fields, coconut grooves and mango orchards. The region has terrific potential with a diversity of cultural aspects and manufacture systems enough to attract tourists. It has seen considerable growth in tourism in the past few years, but this growth is grouped and chaotic.

Agro tourism improvement in Konkan region can be effective only when the development growth is linked with local communities who provide physical assets as tourism products. This is crucial for two reasons. The worried rural stake holders must be helped socially and commercially from their own assets. The rural community must get involved actively in order to maintain eco-biodiversity and traditional values.

3.9 OPPORTUNITIES OF AGRO TOURISM:

Agriculture occupational is becoming more unsafe in Maharashtra due to the irregular monsoon, unsecured product prices. Many farmers cannot manage to pay for it and have a problem of obligation. Due to this difficulties some farmers are obligating to suicide in various districts of the Maharashtra. More than 29,000 farmers committed suicide between 1997 and 2005 in the Maharashtra, certified data show, no other state comes close to that total. Hence, there is need of start any of allied agri-business to support their farming and create associated revenue source from farm.

In order to inspire farmers to begin small and reasonable agro-business activity, like agro-tourism. It offers several possible profits to farm operators. It can help additional income generation activity whereas given that an chance to more fully hire assets, including farm household members. Maharashtra has a great prospective of agro-tourism due to the beautiful natural site and basic infrastructures.

3.10 INNOVATION IN AGRO TOURISM :

3.10.1 IN COOPERATION OF HORTICULTURE:

India has diverse soil and climate which offer ample opportunities to grow variety of horticultural crops. These crops form a big a part of total agricultural produce within the country comprising of fruits, vegetables, root and tuber crops, flowers, ornamental plants, medicinal and aromatic plants, spices, condiments, plantation crops and mushrooms. As horticultural crops improve the income of the agricultural people, it plays a singular role within the Indian economy. As stated earlier, horticulture provides stable employment in an additional number because this sector is labor-intensive. When stable employment is available, stability within the income is additionally assured. Another importance of horticulture is nutrition. Most of the agricultural population is malnutrition affected and fruits provide a fashionable source of vitamins, minerals, proteins, and carbohydrates, etc. of these nutrients are very essential within the nutrition of citizenry. When India will become the youngest country in the world by 2020, this young population needs proper nutrition for better efficiency. The optimum efficiency of the youth of India will make sure the growth of the state. Hence, these are said as defensive foods and warranted great significance as nutritional security of the people. Thus, the cultivation of horticultural crops plays an important role within the prosperity of the nation and is straightly related with the health and happiness of the people.

3.10.2 IMPORTANCE AND SCOPE OF HORTICULTURE

Impermanence in the fruit processing trade of Konkan region is quite high. Survival is the major issue among processors. Therefore, this research is important because the researcher has made an effort to find out whether really marketing orientation as well as global orientation is present or absent in the fruit processing business of Konkan region. There may be some export opportunities present in the business but may not be known to the processors in Konkan region. So to find out export opportunities for processed fruits, this study will be helpful. After finding out future growth opportunities in this business, certain concrete suggestions can be made to the local businessmen as well as government also. Finding out necessity of diversified processing may also help this business to sustain better in the global competition. If certain realities of market are understood by this business and the government, both can change the economics of Konkan region. As horticultural crops improve income of the rural people, it plays a unique role in the Indian economy. As stated earlier, horticulture provides stable employment in more number because this sector is labor intensive in nature. When stable employment is available, stability in the income is also assured. Another importance of horticulture is the nutrition. Most of the rural population is mal nutrition affected and fruits provide a rich source of vitamins, minerals, proteins and carbohydrates, etc. All these nutrients are very essential in the nutrition of human beings. When India will become the youngest country in the world by 2020, this young population needs proper nutrition for better efficiency. Optimum efficiency of youth of India will ensure the growth of the nation. Hence, these are referred to as protective foods and assured great importance as nutritional security of the people.

3.10.3 FORMS OF FRUITS

Fruits can be consumed in its natural form either or can be processed to increase their shelf life and palatability. The processed fruit products include pulp, jams, jellies, squashes, crushes, pickles, etc. These fruits are consumed domestically as well as they are exported in fresh and processed form. This brings foreign exchange for the country which is the most important for economy of any country. These crops also provide ample scope for achieving bio-diversity and diversification to maintain ecological balance and to create sustainable agriculture and can make an impact on the economy of the nation in the years to come.

3.10.4 SCENARIO IN INDIA

In India, horticulture should be given more emphasis to attain nutritional security and more profitable use of land. This will change the outlook of the growers. The need for great utilization of available wastelands against the background of dwindling water and energy resources has focused attention to dry land, to arid and semi-arid facts and to horticultural crops which have lesser demands on water and other inputs besides being 3- 4 times more remunerative than field crops.

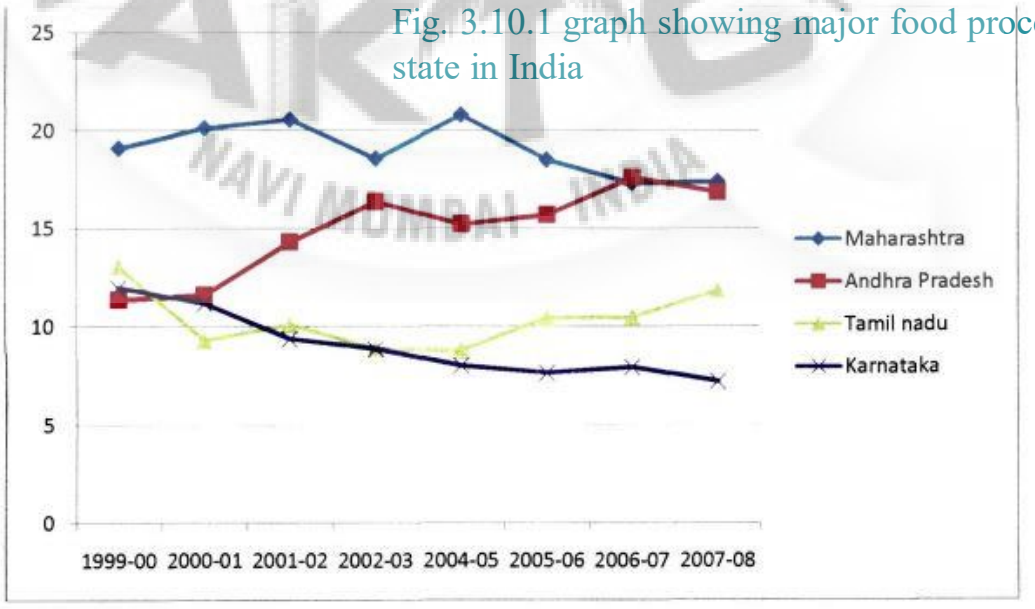


Fig. 3.10.1 graph showing major food processing state in India

3.10.5 FOOD PROCESSING :

In developing countries, agriculture is the backbone of the economy. As such, there should be no wonder that agricultural industries and related activities can reason for a substantial amount of their output. Out of the assorted sorts of activities which will be labelled as agriculturally based, fruit and vegetable processing are among the foremost important activities.

Both customary and planned fruit and vegetable processing projects aim at resolving an recognized development problem. this is often because of insufficient demand, weak infrastructure, poor transportation, and the perishable nature of the crops, the grower sustains substantial losses. During the post-harvest glut, the loss is considerable and infrequently a number of the product needs to be fed to animals or allowed to rot.

Even recognized fruit and vegetable canning factories or small/medium scale processing centers abide huge loss because of inconsistent supplies. The grower may wish to sell his produce within the open market on to the patron, or the farm produce might not be of enough prime quality to process, while it would be adequate for the table. this suggests that processing capacities are seriously underexploited.

The main objective of fruit and vegetable processing is to provide wholesome, safe, nutritious, and acceptable food to consumers throughout the year. Fruit and vegetable processing projects also aim to interchange imported items like squash, jams, sauces, etc., besides earning interchange by exporting finished or semi-processed products.

3.10.6 NEED FOR FOOD PROCESSING :

• Variation of the economy, so on in the reduction of reliance on one export commodity.

• Governments policy of industrialization.

• Reduction of imports by creating alternatives to imported items and meeting export demands.

• Encourage agricultural production by obtaining marketable products.

• Generate both rural and city employment.

• Reduce post produce losses of fruit and vegetable.

• Improve farmers' nutrition by allowing them to consume their own processed fruit and vegetables during the off-season.

• Generate new sources of income for farmers/artisans.

• Develop new value-added products.

4 : CASE STUDIES

4.1 CASE STUDY : 1

SIRNI FOOD PARK, HYDRABAD

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: Mogili Village, Chittoor district.

Mega Food Park inhabits an area of 147 acres at a intentionally beneficial location on the National Highway connecting Bangalore and Chennai; is only 120 kms from Tirupati, a pilgrim center with more than 150,000 variable population per day. Being equi-distant from two major metros in India, a major port (Chennai) and two international airports (Chennai and Bengaluru) and one domestic airport (Tirupati), it offers great benefits to food processors and buyers.

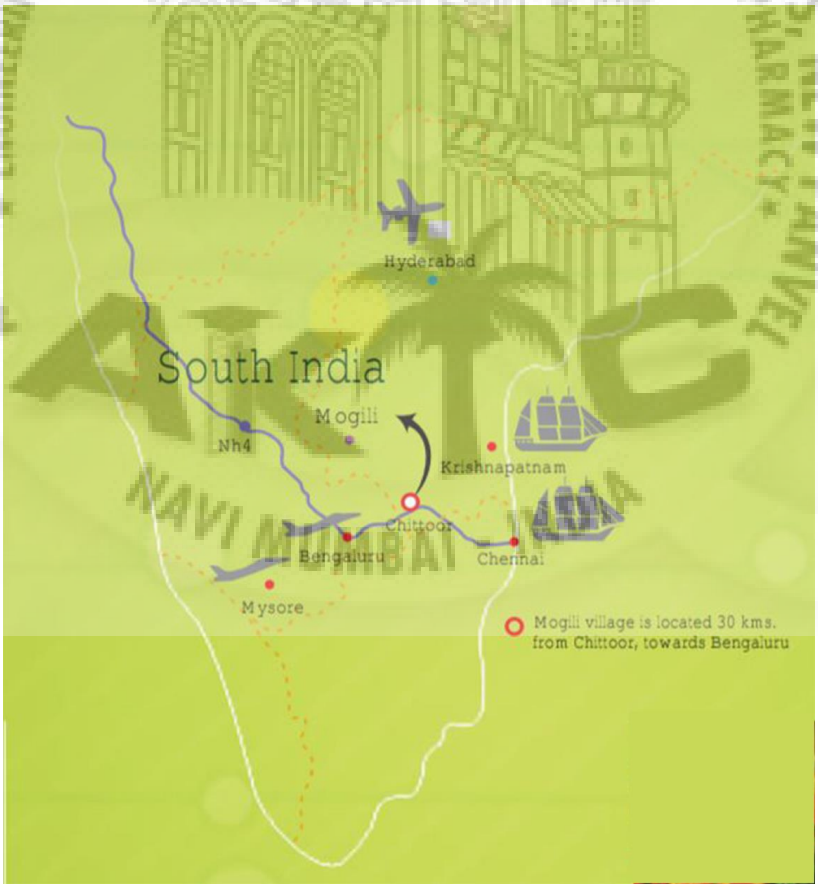


Fig. 4.1.1 Map showing location of project

VISION OF PROJECT:

Aim is to be the model infrastructure provider to the food processing industry in India by adopting global best practices, high-end technology and providing end-to-end linkage to the food processing sector.

PROCESS

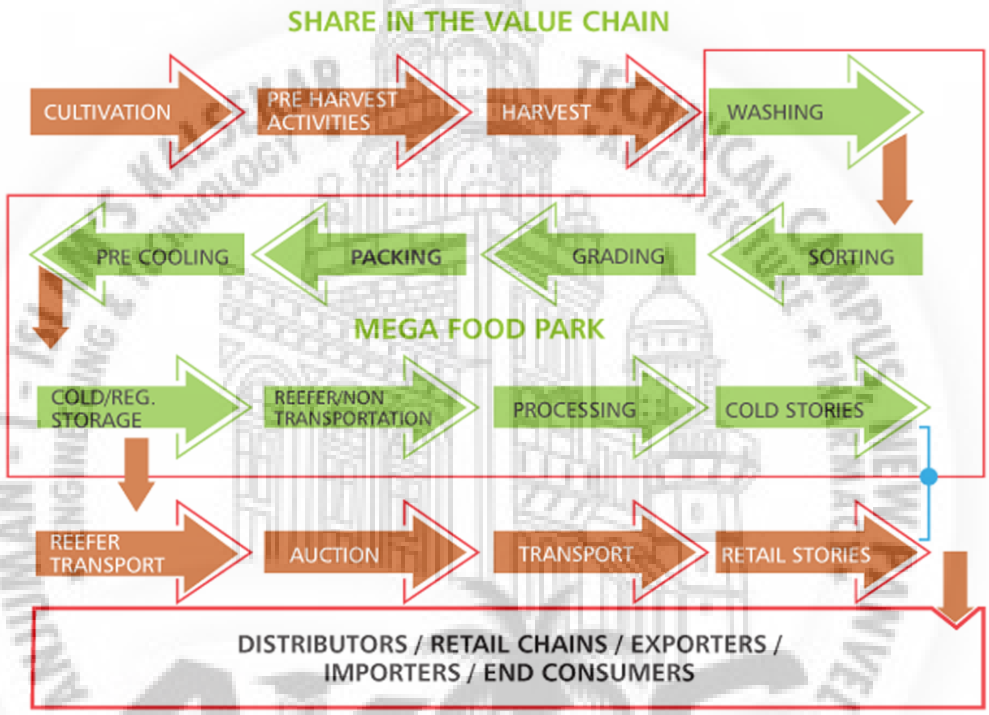
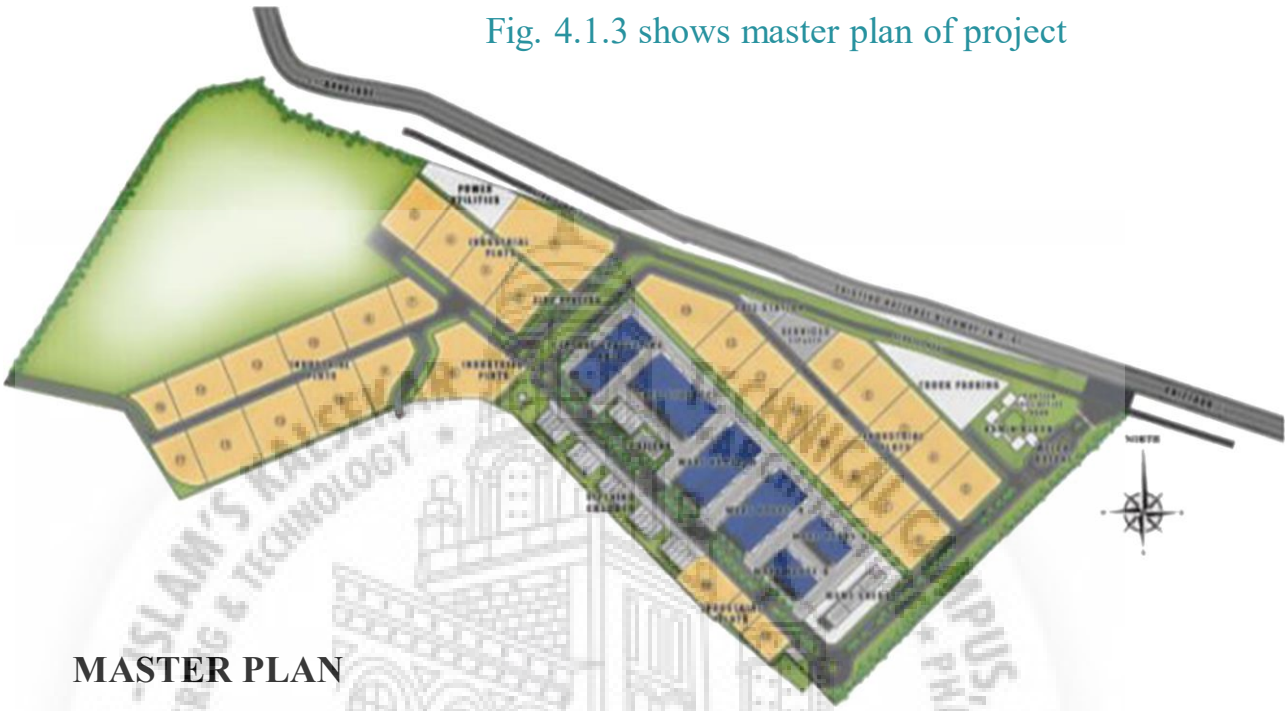


Fig. 4.1.2 shows process of share in proposal

SITE BACKGROUND AND IMPORTANCE :

It has right of entry to a very large and varied raw materials base scattering across Kadapa, Anantapur and Nellore districts of Andhra Pradesh; all these districts are adjoining, and a diversity of tropical fruits - Mango, Papaya, Guava, Pomegranate, Lemon, Banana, Water Melon, and Vegetables - Tomato, Beans, Okra, Brinjal, Tamarind, and Poultry Eggs are available seasonally

Fig. 4.1.3 shows master plan of project



MASTER PLAN

GOVERMENT HELP AND INITATIVES :

Incentives have been offered by the Government including subsidized charges for electric power, market cess waiver, duty drawback etc. for food processing enterprises set up in Chittoor district under the AEZ and other schemes

BENIFITS TO FARMER :

Srini Food Park also engages in contract farming which is of mutual benefit both to us and the farmers – farmers benefit with our expertise on good farming practices which result in enhanced yield and we in turn get a steady supply of high –quality raw material for our food processing requirements

SPACE PROGRAM:

SR.NO.	SPACES
1	ADMIN
2	PARKING
3	PROCESSING
4	POWER FACILITY
5	WAER FACILITY
6	OFFICE
7	BANK
8	SHOPPING ARCADE
9	MEDICAL CENTRE
10	FIRE STATION
11	SECURITY BLOCK
12	STAFF BLOCK
13	GREEN SPACE
14	RIPENING AREA
15	COLD STORAGE
16	DRY STORAGE
17	BOILERS
18	TRAINING CENTRE
19	HOSTEL AND STAY
20	CANTEEN
21	CRECHE
22	CONFERENCE HALL

INFERENCE :

Case study helps to understand various activities carried out in food parks. And the spaces in terms of functions and allied spaces Data collected will further in exploring and in cooperating in the design process.

4.2 CASE STUDY : 2

NORTH EAST MEGA FOOD PARK, ASSAM

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: ASSAM

The Mega Food Park will be developed on a continuous stretch of 50 acres of land located at Nathkuchi Village near the Tihu town ship of Nalbari District in Assam. The site is 90 Kms from Guwahati City and 40 Kms from Nalbari town (the adjoining main urban area) The closest railway station at Tihu is only 3 Km and adjoining airport at Guwahati is about 70 Kms away. Adjacent seaport to the site is the Haldia Dock in West Bengal. NH-31, connects the planned project site to the rest of the India.

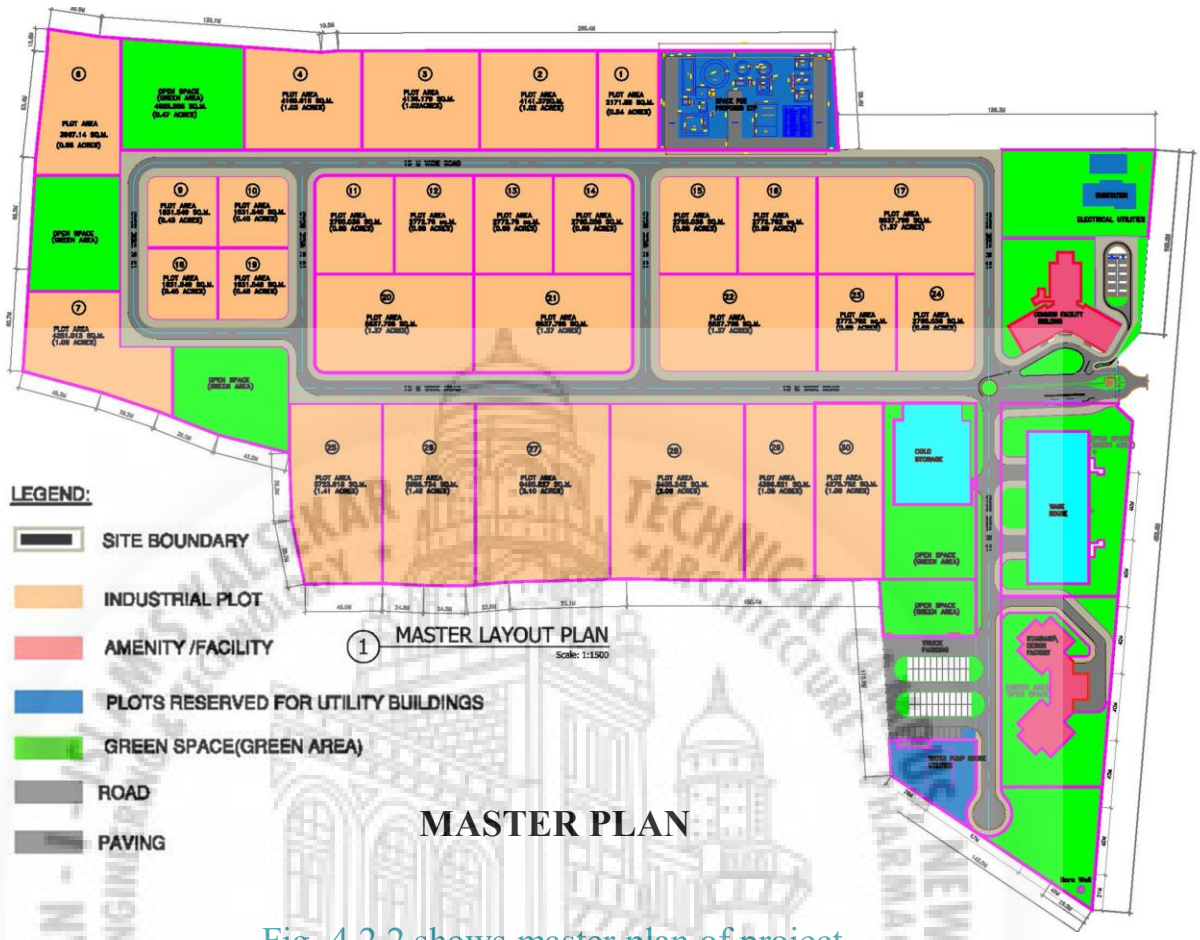
Fig. 4.2.1 shows location of project

VISION OF PROJECT:

The Mega Food Park is an inclusive concept which is aimed at establishing direct linkages from the farm to processing and on to the consumer markets

SITE BACKGROUND AND IMPORTANCE :

- The site is well linked by road to all the proposed PPCs
- The site is situated close to Guwahati City which is the nerve center for circulation of Processed Food as well as other products in the North Eastern Region.
- All over India the products of the park can be easily be marketed due to the site lying in the close proximity to the east west corridor.
- The site offers easy availability of water from the nearby, Tihu River as well as from ground water sources.
- The site lies close to the Urban Center of Nalbari and the City of Guwahati is only 90 Kms away, this offers noticeable benefits for locating staff as well as for other purposes of availing urban amenities.
- Being close to Guwahati City, Skilled Manpower will be easily obtainable.



MASTER PLAN

Fig. 4.2.2 shows master plan of project

SPACE PROGRAM:

SR.NO.	SPACES
1	PROCESSING UNIT
2	PARKING AND TRUCK TERMINAL
3	COLD STORAGE
4	QUALITY CONTROL ALB
5	COMMON BUILDING
6	STANDARD FACTORIES
7	WARE HOUSE
8	WATER SUPPLY SYSTEM
9	TRAINING CENTER
10	FIRE STATION
11	POWER STATION
12	ADMIN
13	MEDICAL CENTRE
14	SHOPPING ARCADE

INFERENCE :

Open spaces are properly planned. Sufficient parking is given. Lacks loading unloading area. Staff amenities are not properly provided.

4.3 CASE STUDY : 3

INDIA FOOD PARK, KARNATAKA

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: KARNATAKA

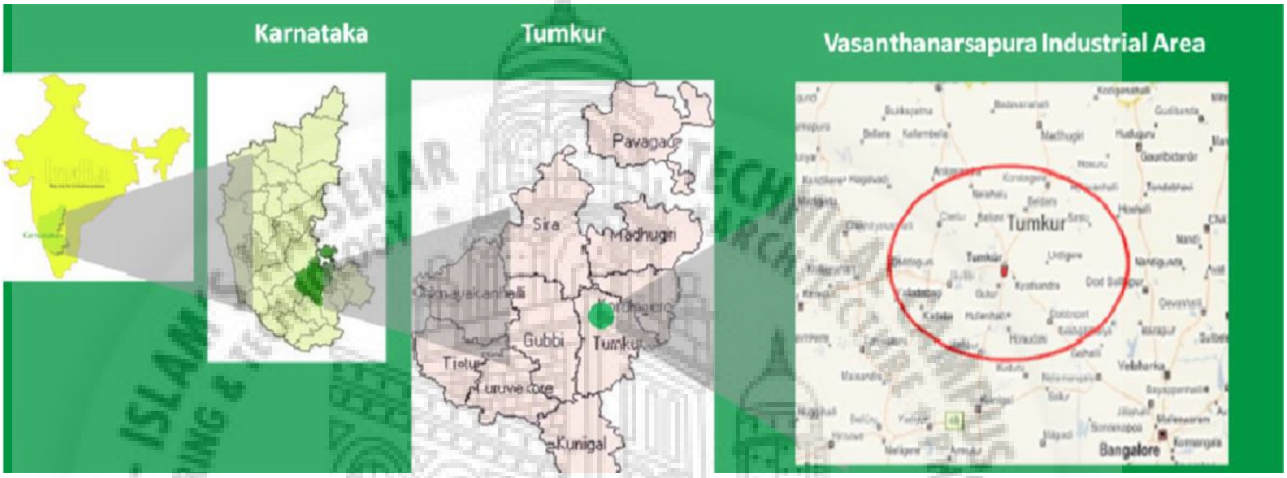


Fig. 4.3.1 shows location of project

SERVICES :

- Common- sourcing, processing, storage logistics.
- Leasable space : plots, sheds

VISION OF PROJECT:

The Mega Food Park is a central government scheme instrumented by Ministry of Food Processing Industries to provide adequate/excellent infrastructure facilities for food processing along the value chain from the farm to market.

SITE BACKGROUND AND IMPORTANCE :

- All the districts in Karnataka which are located more than 200 km from IFPPL site can be defined as secondary catchment area.
- Thus his catchment area would thus primarily provide a base for obtaining of non-perishable produce such as cereals, pulses, spices and others while a small quantity of fruits and vegetables would be obtained from this region on a case-to-case basis.

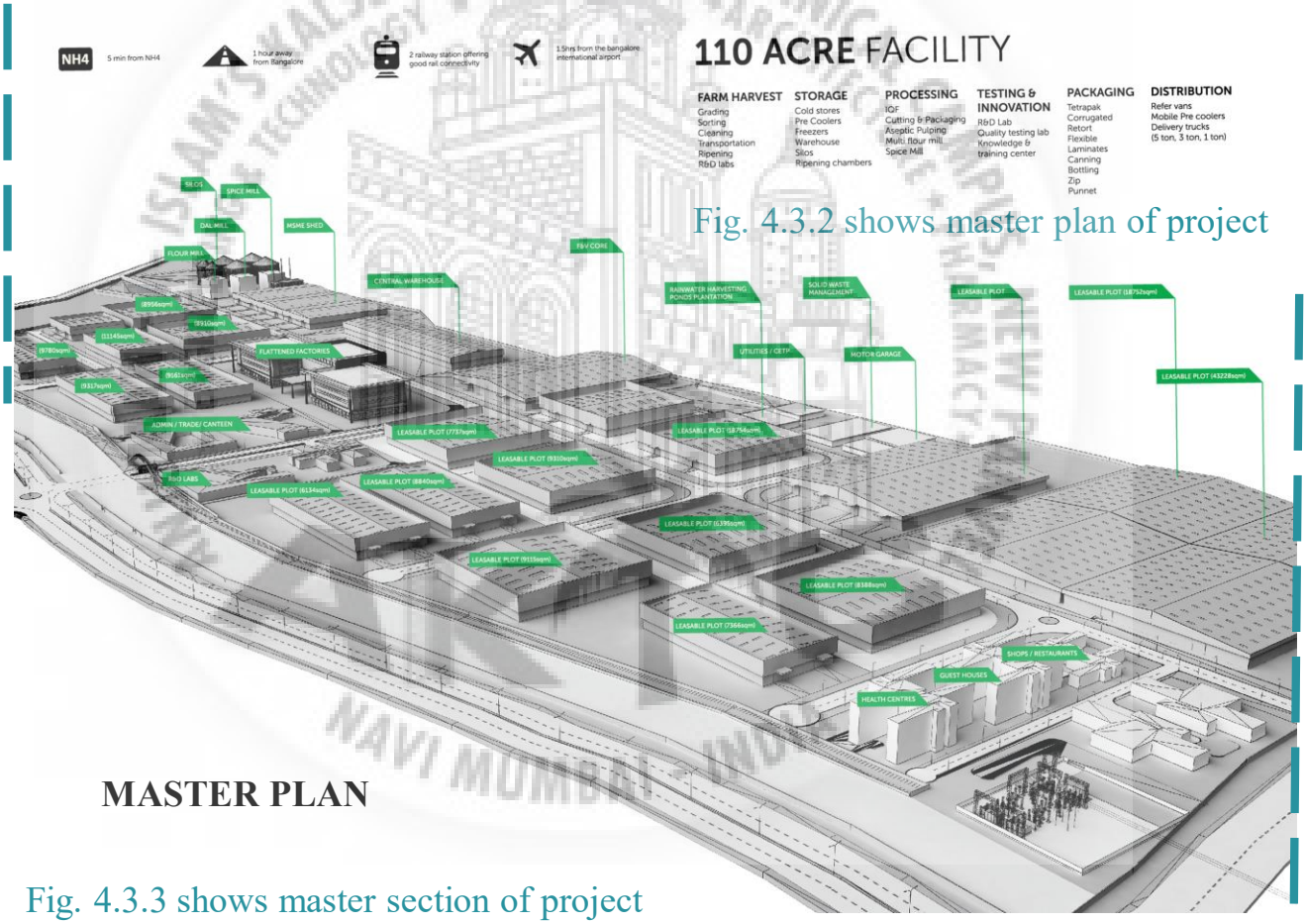
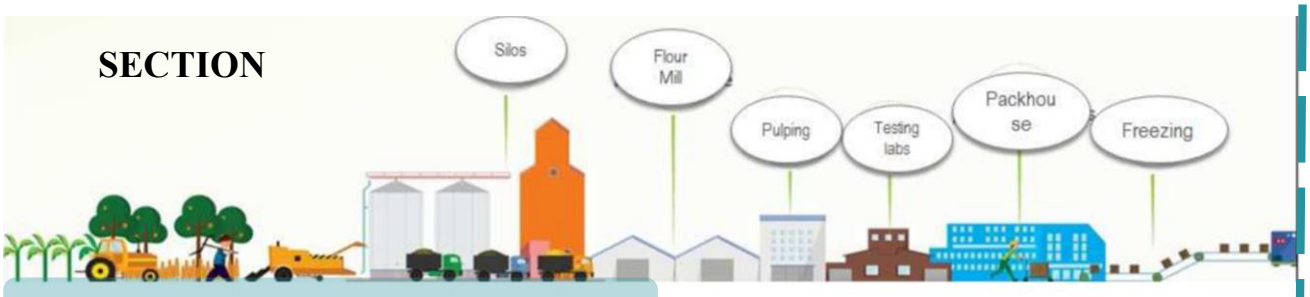


Fig. 4.3.2 shows master plan of project

MASTER PLAN

Fig. 4.3.3 shows master section of project



SPACE PROGRAM:

SR.NO.	SPACES
1	ADMIN
2	PARKING
3	PROCESSING
4	POWER FACILITY
5	WAER FACILITY
6	OFFICE
7	BANK
8	SHOPPING ARCADE
9	MEDICAL CENTRE
10	FIRE STATION
11	SECURITY BLOCK
12	STAFF BLOCK
13	GREEN SPACE
14	RIPENING AREA
15	COLD STORAGE
16	DRY STORAGE
17	BOILERS
18	TRAINING CENTRE
19	HOSTEL AND STAY
20	CANTEEN
21	CRECHE
22	CONFERENCE HALL

INFERENCE :

Case study helps to understand various activities carried out in food parks.

And the spaces in terms of functions and allied spaces Data collected will further in exploring and in cooperating in the design process.

4.4 CASE STUDY : 4

SATARA MEGA FOOD PARK, PUNE

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: PUNE

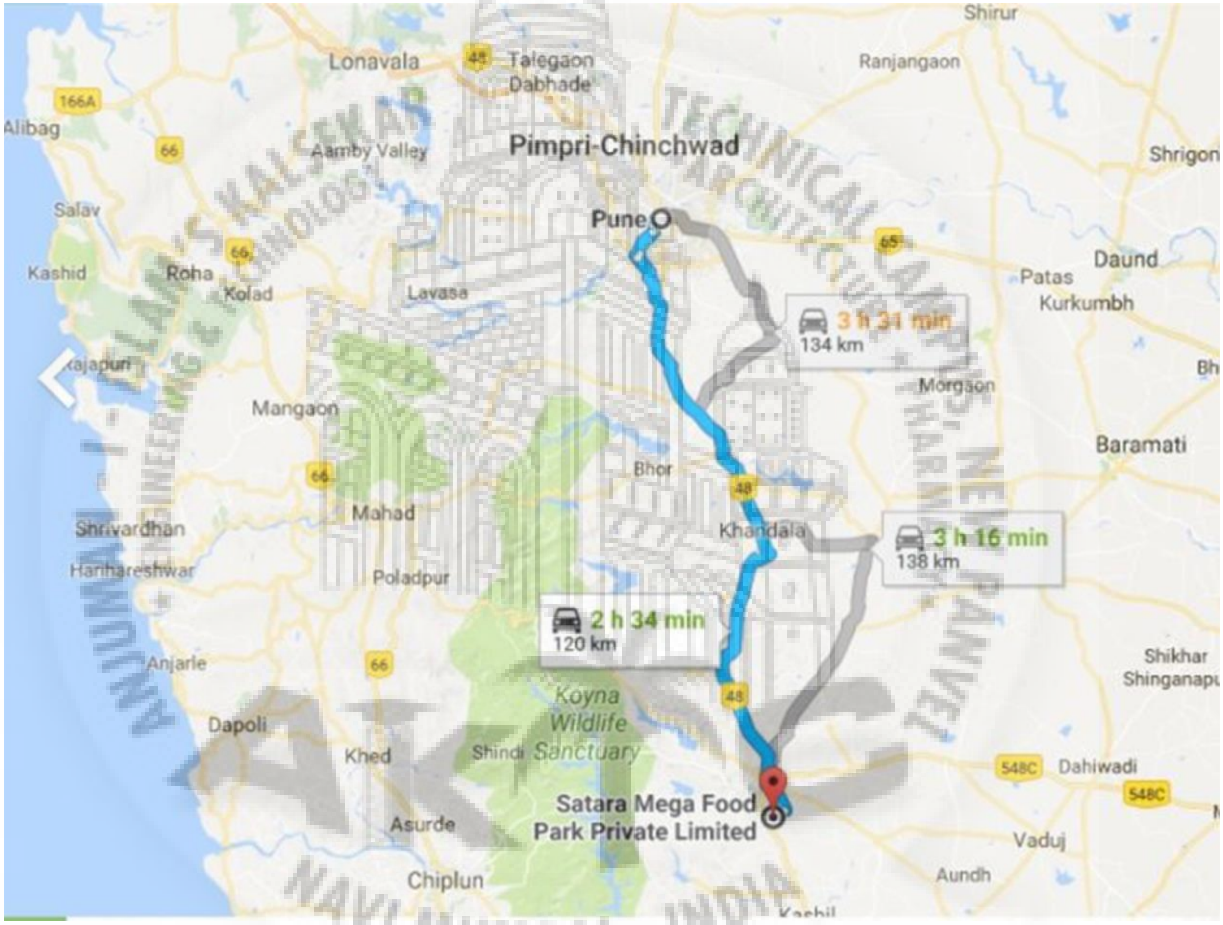


Fig. 4.4.1 shows location of project

VISION OF PROJECT:

The primary objective of this project is to provide modern infrastructure facilities for food processing along the value chain from the farm to the market.

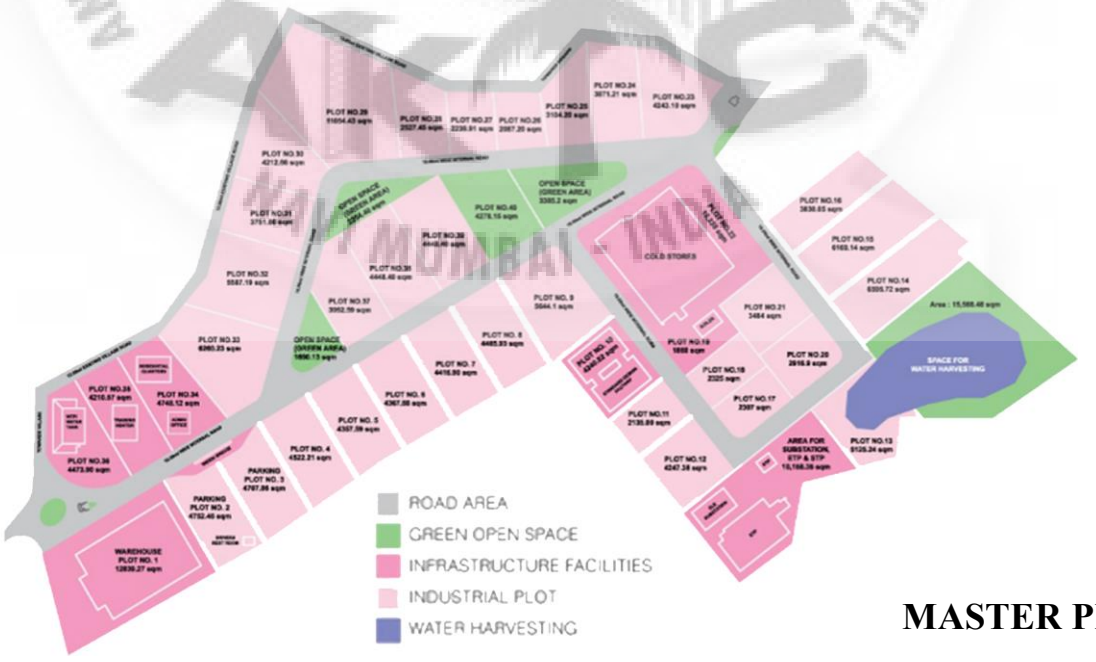
SITE BACKGROUND AND IMPORTANCE :

- Have independent approach road from NH-48.
- Overnight road access to 400 million Indians having per capita income higher than national average.
- 9KM from railway line, giving easy access to additional 20% of India's market of processed food.
- Water can be easily accessed from the nearby Tihu river as well as from ground water resources due to the location of the site.
- Area has diversified agro-climatic and is well-irrigated ensuring uninterrupted, round the year supply of agriculture produce for processing.

INNOVATION IN FUTURE :

Future planning is to in cooperate organic farming in the existing program. Also to come up with plant nursery.

Fig. 4.4.2 shows master plan of project



MASTER PLAN

SPACE PROGRAM:

SR.NO.	SPACES
1	ADMIN
2	PARKING
3	PROCESSING
4	POWER FACILITY
5	WAER FACILITY
6	OFFICE
7	BANK
8	SHOPPING ARCADE
9	MEDICAL CENTRE
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14	RIPENING AREA
15	COLD STORAGE
16	DRY STORAGE
17	BOILERS
18	TRAINING CENTRE
19	HOSTEL AND STAY
20	CANTEEN
21	CRECHE
22	CONFERENCE HALL

INFERENCE :

All spaces are properly placed along with training Building and stay area and library and crèche etc. All required paces for staff and students are properly Provided.

4.5 CASE STUDY : 5

AGRO FOOD PARK EXPANSION, DENMARK

AGRO TOURISM INDUSTRY IN KONKAN

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: DENMARK

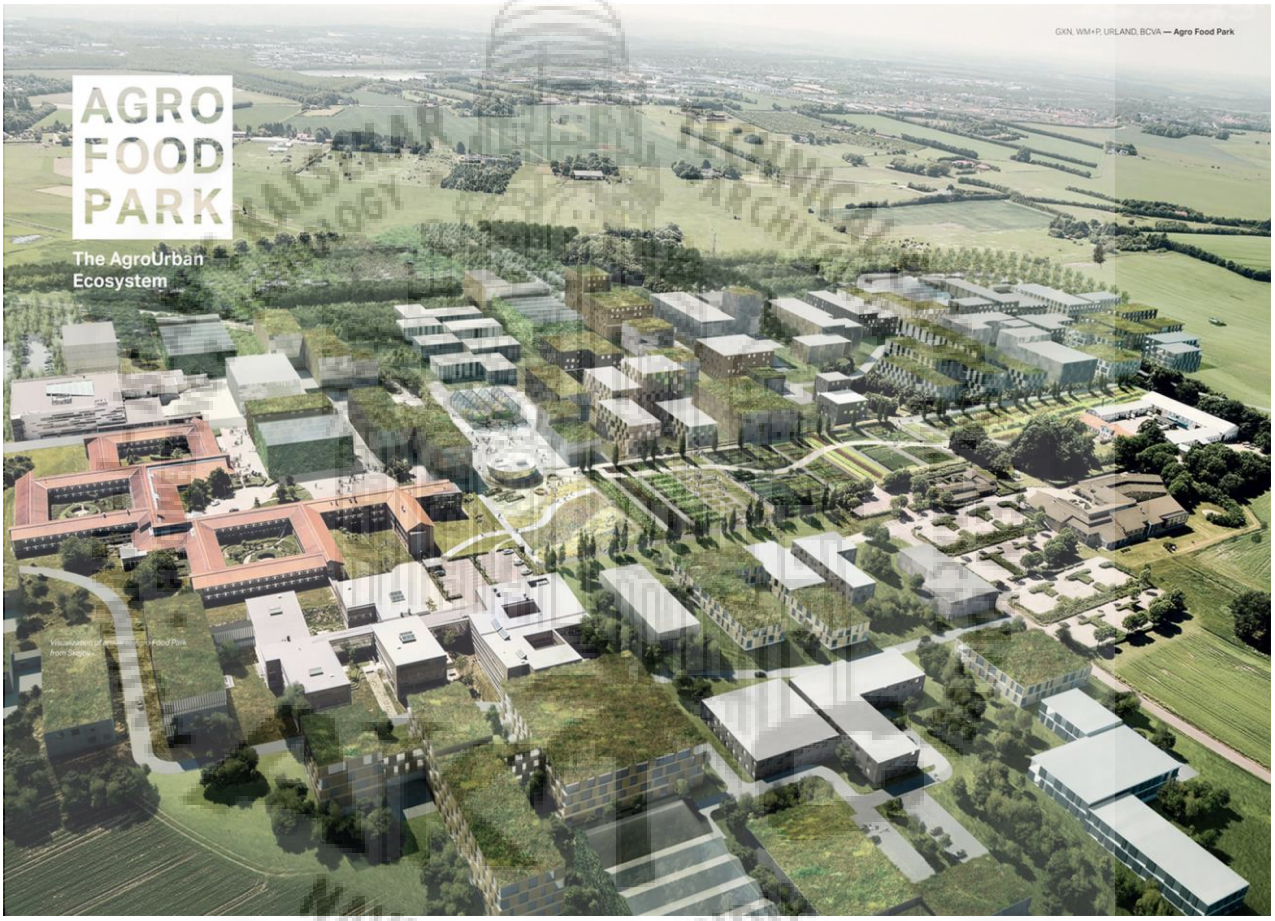


Fig. 4.5.1 shows Agro food park in Denmark

VISION OF PROJECT:

Agro Food Park (AFP), a hub for agricultural innovation near Aarhus, Denmark. Aiming to serve as a benchmark for future global food industry development, the project will combine urban density with agricultural test fields in a collaboration of academic and commercial business.

PROJECT HIGHLIGHTS :

Over the next 30 years, the current AFP—which was opened in 2009 and spans 44,000 square meters with nearly 1,000 employees—will expand by an additional 280,000 square meters.

Healthy materials, clean energy, increased biodiversity, healthy air, and clean water are the five focus area the have been identified to improve AFP through the new development.

The Lawn, a central communal green space, the Strip, AFP's main street, and the Plazas, which will bind together clusters will compose of three main elements of the master plan of buildings with individual neighborhood identities.

Fig. 4.5.2 shows master plan of project

MASTER PLAN

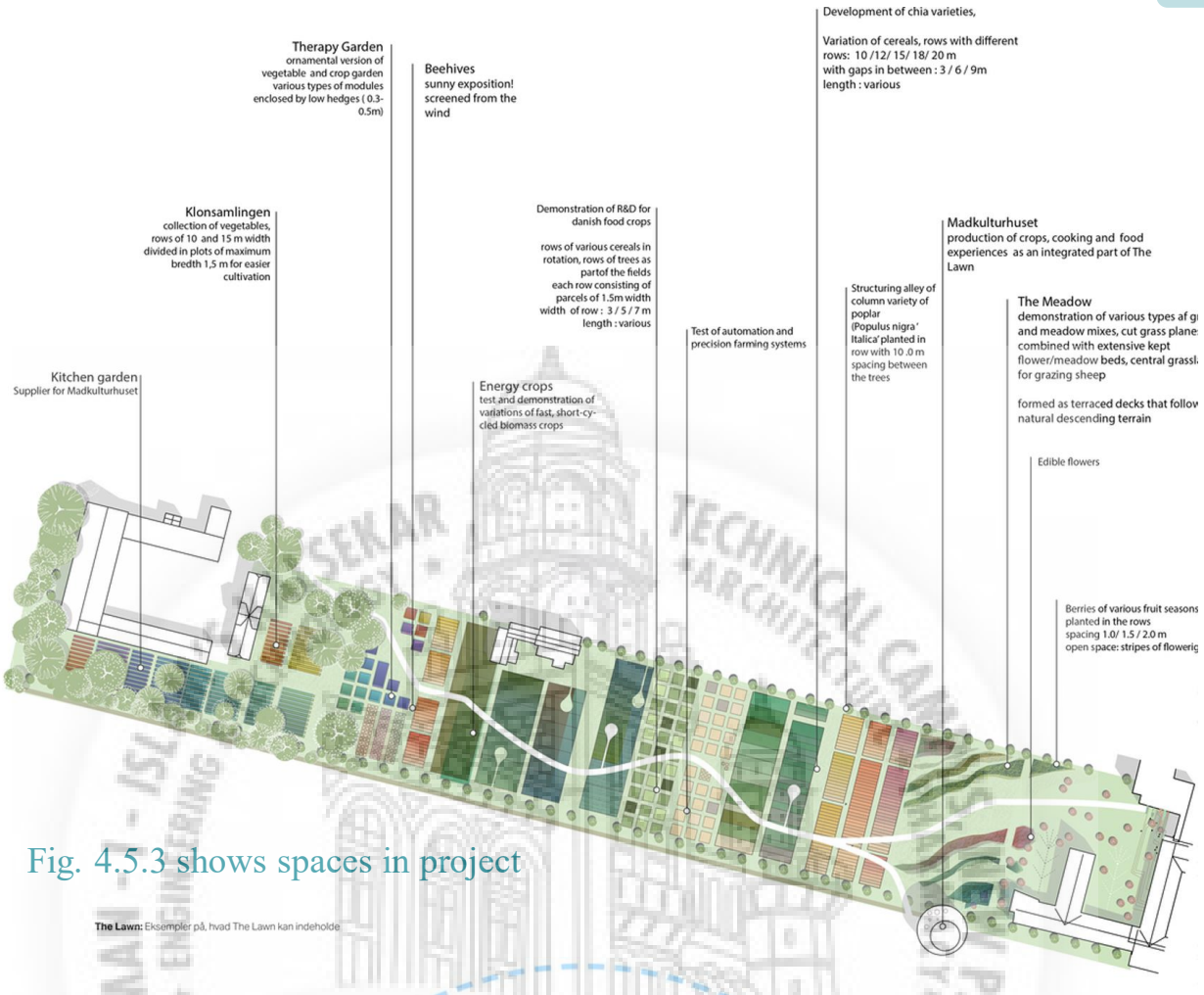


Fig. 4.5.3 shows spaces in project

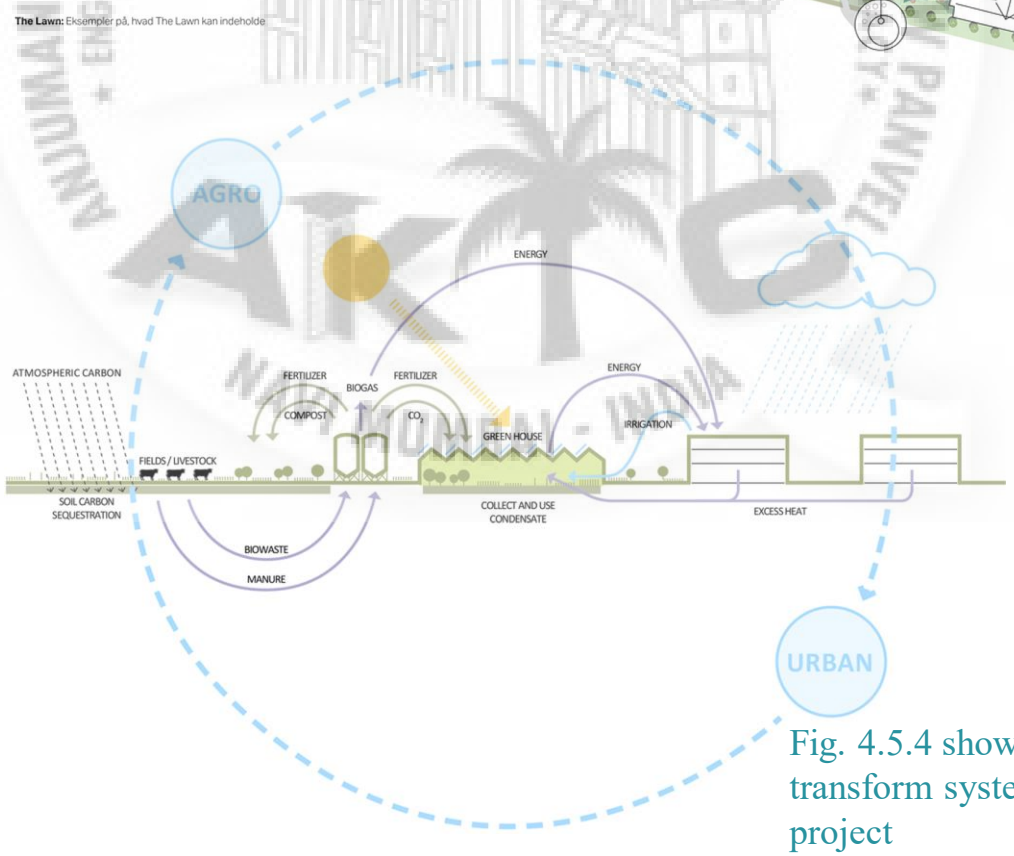


Fig. 4.5.4 shows energy transform system used in project

INFERENCE :

Case study helps to understand various techniques and innovations carried out in food parks. And the spaces in terms of functions and allied spaces Data collected will further in exploring and in cooperating in the design process.

4.6 CASE STUDY : 6

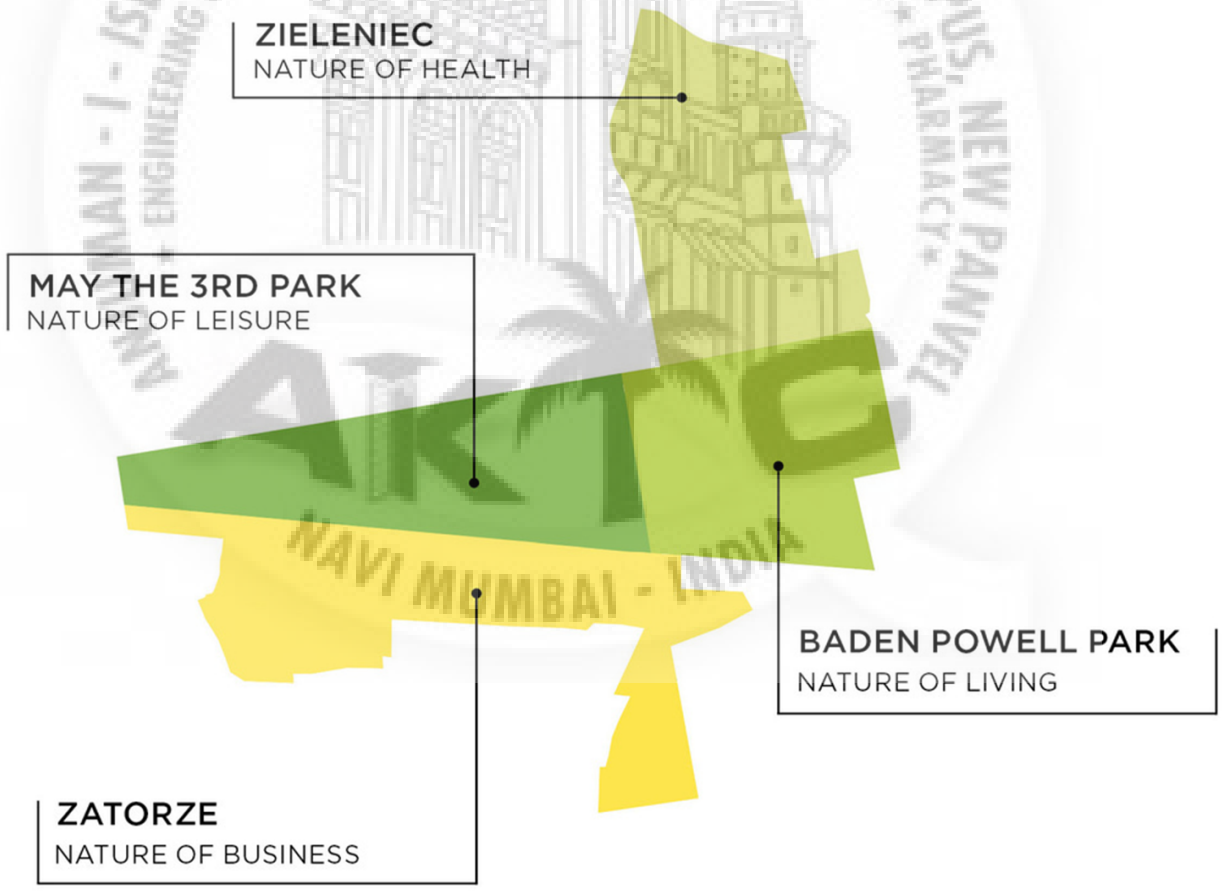
WORLD HORTICULTURE EXPO, 2020

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: POLAND

Green EXPO, the international exhibition devoted to the use of greenery and landscaping in urban environments will be located in the heart of the city center, in proximity to the main railway station, and surrounded by the urban fabric.



VISION OF PROJECT:

Concentrating on redeveloping, reestablishing, reprocessing, repurposing, and reusing, Chapman Taylor's master plan concept is arranged around four themed zones: Nature of Leisure, Nature of Living, Nature of Health, and Nature of Business.

SITE BACKGROUND AND IMPORTANCE :

Developed on a site that includes two existing parks, the project is also adjacent to the city's Medical University. Part of the city's longer-term development strategy, the master plan will introduce substantially more green space within the city's urban fabric. It will act as an engine of urban rejuvenation, generating pocket gardens, living streets, and a network of over 120km of green tracks.

Fig. 4.6.1 shows master plan of project

INNOVATION :

- Nature of Leisure: represents forest and lake environments, offering family recreation as well as sport and fitness options for people of all ages within the park's restored and enhanced spaces, designed with respect for its history.
- Nature of Living: Pavilion surrounded by Gardens of Four Cultures, the international participants' National Gardens, an amphitheater, a viewing tower, and exhibition halls.
- Nature of Health: the Zieleniec area includes environmentally friendly design solutions combined with Eco Med Health Academy's Horti-therapy program, Gardens of Healthy Food, Clean Air and Water, Gardens of Senses, and the Circular Village.
- Nature of Business: conferences, seminars, scientific meetings, and business networking, with a focus on the exchange of ideas for improving quality of life

Fig. 4.6.2 shows front elevation of project

SPACE PROGRAM:

SR.NO.	SPACES
1	PAVELLION
2	GARDEN
3	AMPHI
4	EXIBITION HALL
5	HORTI- THERAPY
6	FARM OF FRUITS AND HEALTHY FOOD
7	SEMINAR HALL
8	CONFERENCE HALL

Fig. 4.6.3 shows view of garden

INFERENCE :

Understanding the proper blend of urban fabric with green spaces and to regenerate the fabric with green space for business and public recreation and to generate economy with horticulture.

Fig. 4.6.4 shows view of pavilion

4.7 CASE STUDY : 7

AGRO TOURISM IN MELGACO, PORTUGAL

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: MELGACO, POTUGAL

PLANNING :

The expansion will result on a new volume in dialogue and similar relation as the existing one, next to the existent stone wall bellow. The volume is recurring, regarding the scale and tradition; at the recovered volume one will keep the granite walls and same roof tiles, the new volume reinvests himself with a contemporary materiality that enriches this dialogue. The interior finishes of both houses, in contract with the harshness of the exterior, will be in wood.

A green leisure area is created amongst the two volumes which corresponds to the vine tasting area and green roof of the vinery, a small volume condemned by the big opening on the stone wall allowing a view towards the vineyard and prevailing water line. the vineyards to one side and the two volumes that frame and value the existent terraces, which we intend to enhance and recover according to their original features.

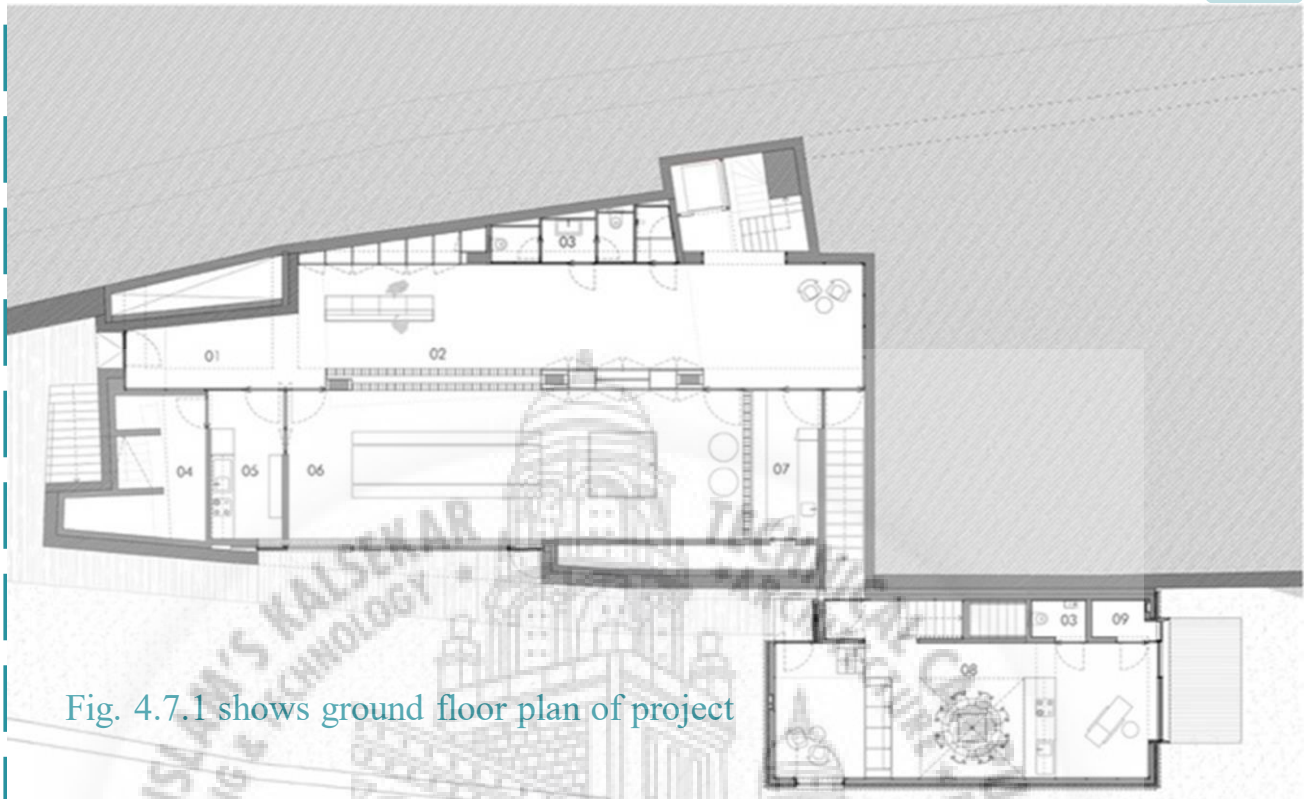


Fig. 4.7.1 shows ground floor plan of project

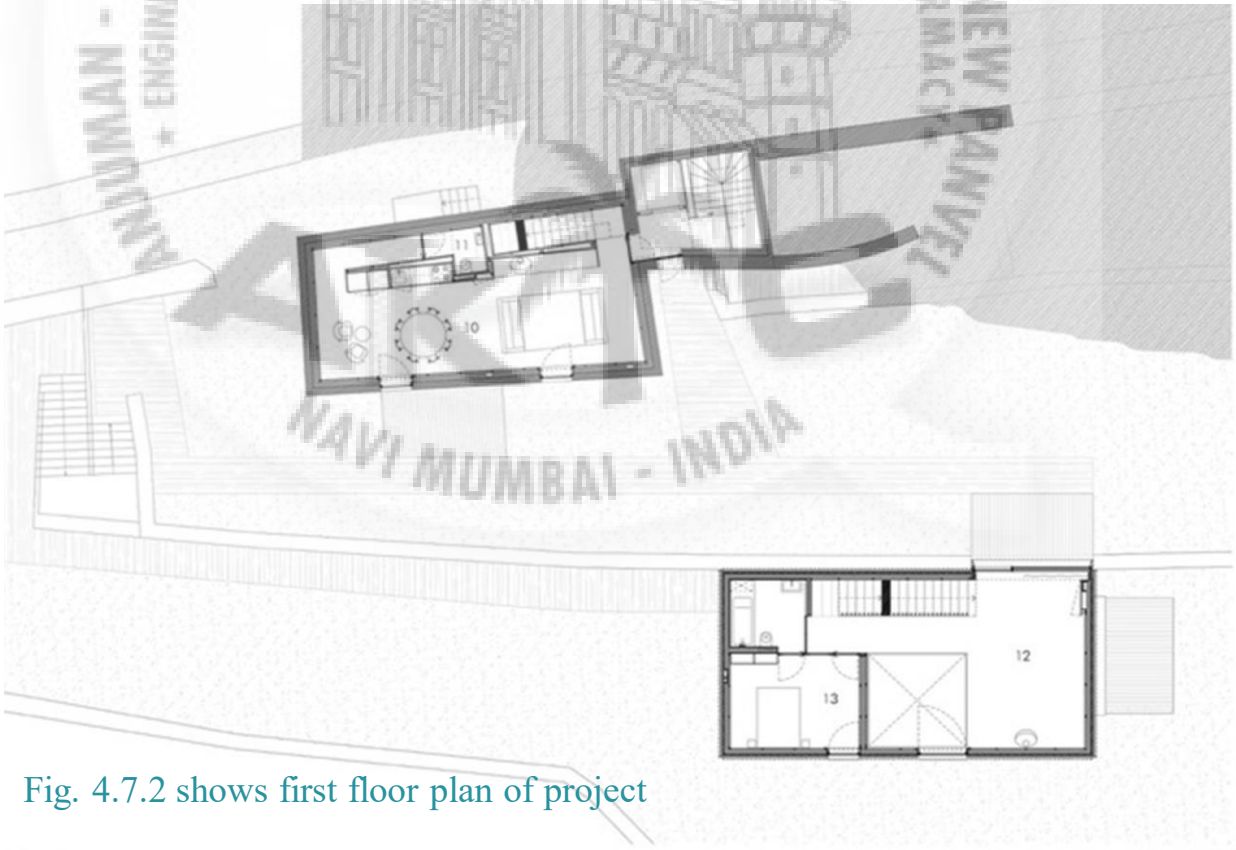


Fig. 4.7.2 shows first floor plan of project

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SPACE PROGRAM:

SR.NO.	SPACES
1	LIVING AREA
2	RESTING AREA
3	TOILETS
4	DINING AREA
5	TESTING AREA
6	ACCOMODATION

INFERENCE :

Understanding the proper blend of surrounding with green spaces and to regenerate the fabric with green space for business and public recreation and to generate economy with existing crop yield.

Fig. 4.7.3 shows view of built structure on site

Fig. 4.7.4 shows view of structure from vine yard

4.8 CASE STUDY : 8

ECO TOURISM IN FRANCE

AGRO TOURISM INDUSTRY IN KONKAN

INTEND OF CASE STUDY :

This case study is chosen to understand spaces and programs used in this project along with the effect of background on the project.

LOCATION: FRANCE

The site of the "Gorges de Franc hard" is the most popular in the forest area of Fontainebleau (the biggest listed site in France).

This very sensitive site of high quality within the new nature reserve.

VISION OF PROJECT : The goal of the site, which is also the very first Eco tourism center within the île de France region, is the better management of the traffic flow in the area, as much as increasing the public awareness of its great fragility. A large hall has been designed for conducting various pedagogical activities and for welcoming groups inside the project which is organized around the vicinity of reception and exhibition area.

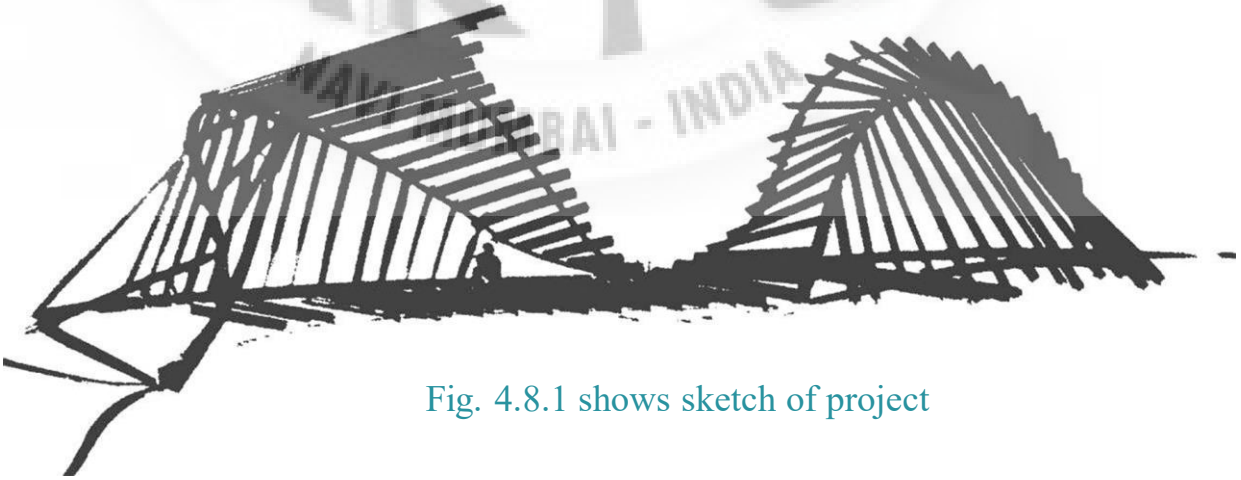
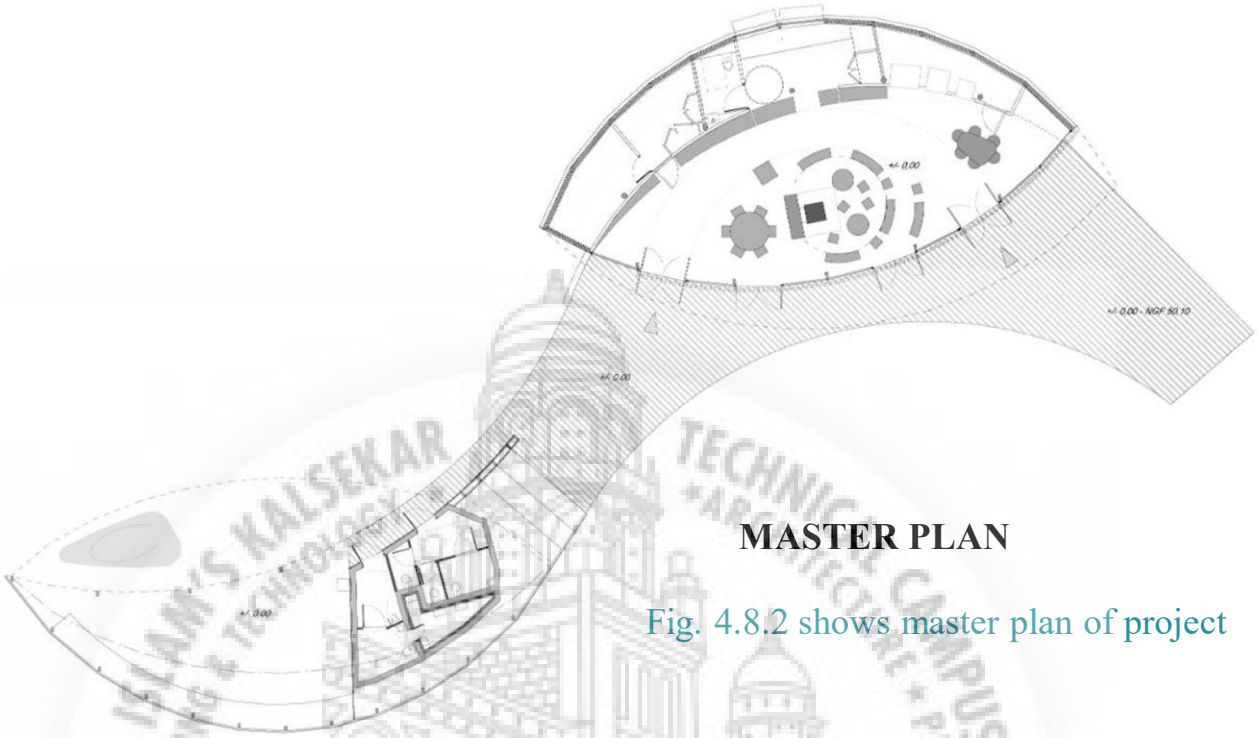


Fig. 4.8.1 shows sketch of project

PLANNING :

- The venture has been developed based on the analyses the agency made on the building's atmosphere and its connection to the landscape.
- The building is thought of as a living room in the woods. The erodes stones seen on the site give an inspiration for wide and smooth shapes along the preserved trees.
- The project can be seen as a definition of new limits between architecture and nature.
- There are two faces of the same coin – one being public areas and the other as the fragile forest with the limited access.
- The global ecological method guiding the project ensures the control of its impact.
- The orientation choices and the protection from the main winds optimize the bioclimatic solutions and the eco-friendly energy sources used.
- The use of wood and its implementation gives us the opportunity for eco-construction solutions. Superficial foundations ensure the project's reversibility.
- This comfortable and functional project offers a high degree of flexibility depending on the season and the attendance rate.



MASTER PLAN

Fig. 4.8.2 shows master plan of project

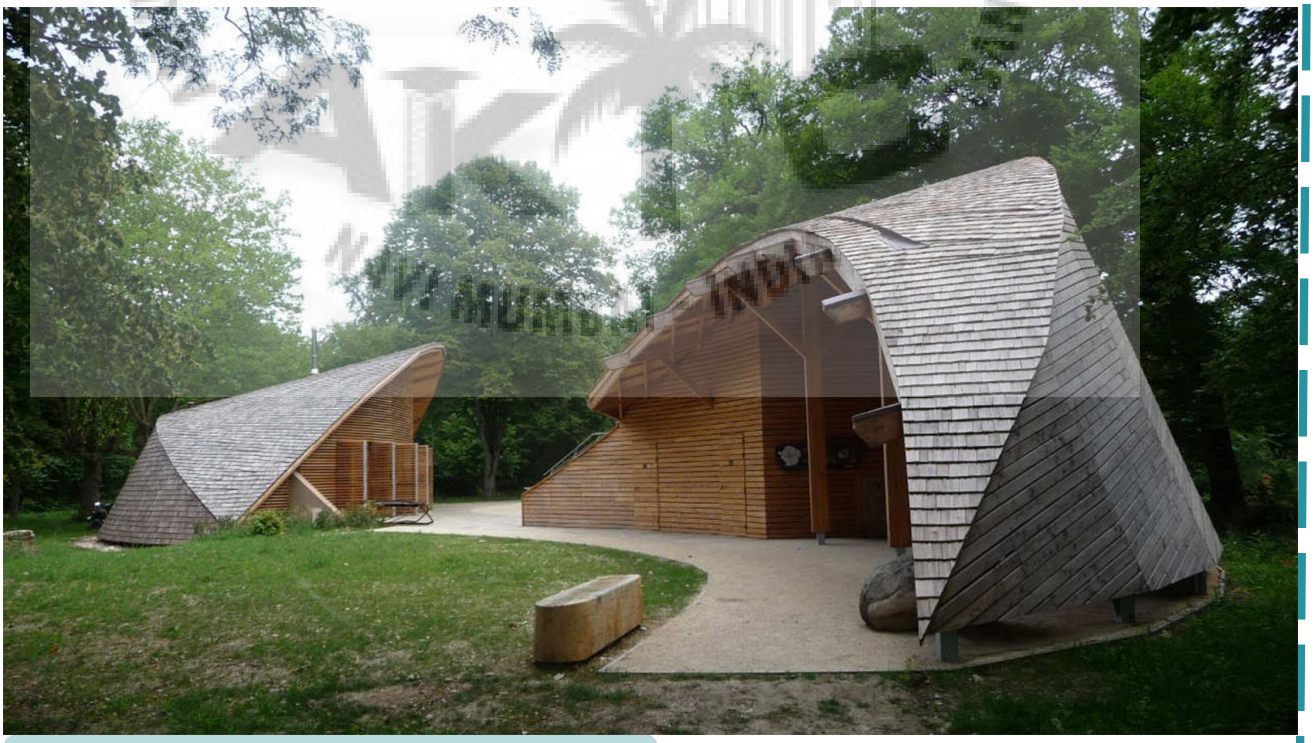
SPACE PROGRAM:

SR.NO.	SPACES
1	LIVING AREA
2	RESTING AREA
3	TOILETS
4	DINING AREA

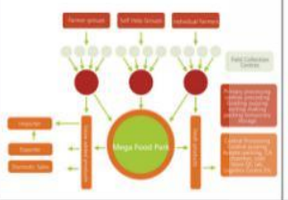
INFERENCE :

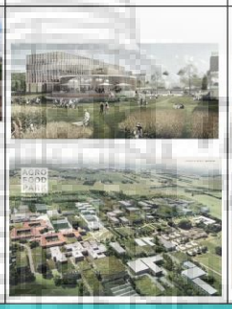
understanding different materials and technology along with site context to develop a structure which blend into the site context.

Fig. 4.8.3 shows material used in project



4.9 COMPARATIVE ANALYSIS

	SIRI FOOD PARK, HYDRABAD	NORTH EAST MEGA FOOD PARK, ASSAM	INTEGRATED FOOD PARK, KARNATAKA	AGRO FOOD PARK EXPANSION IN DENMARK	SATARA MEGA FOOD PARK, SATARA	HORTICULTURE EXPO, POLAND	AGRO TOURISM IN MELGACO	ECO TOURISM IN FRANCE
LOCATION	Chitoor, Andhra Pradesh	Nalbari, Assam	Tumkur, Karnataka	DENMARK	SATARA, MAHARASHTRA	POLAND	MELGACO	FRANCE
PROJECT YEAR	2012	2015		2009		2029	2016	2011
SITE AREA		20234 SQ M.	110 ACRES	44000 SQ. M.	36.60 acres	80 HECTERS	621 SQ M.	5400 SQ M.
MASTER PLAN								
CONCEPT							A property composed of a house in ruins, cultivation land, vineyards and a pine forest. The clients intend to recover and augment the house in order to develop an agricultural/rural tourism accommodation, and also build a winery and wine tasting area, as they are producers.	Vision is the better management of the traffic flow in the area, as much as increasing the public awareness of its great fragility.
CIRCULATION	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there	Circulation in the park is totally based on function and process there
CONSTRUCTION MATERIALS	R.C.C. STRUCTURE WITH PLASTIC SHEETS FOR ROOFING SYSTEM b) STEEL STRUCTURE FOR FACTORY	R.C.C. STRUCTURE WITH ASBESTOS SHEET FOR ROOFING SYSTEM	R.C.C. STRUCTURE WITH PLASTIC SHEETS FOR ROOFING SYSTEM b) STEEL STRUCTURE FOR FACTORY	STEEL STRUCTURE WITH SIMPLE GLASS PARTITIONS ARE PLACED FOR CLASSROOMS AND FAÇADE HAS TIMBER FINISHING	R.C.C. STRUCTURE WITH PLASTIC SHEETS FOR ROOFING SYSTEM b) STEEL STRUCTURE FOR FACTORY		GRANITE WALL WALL TILES CONCRETE	wood
SERVICE PROVIDED ON SITE AND BUILDING	CRECHE, HOSTEL, TRAINING INSTITUTE, SHOPPING COMPLEX	LAB TESTING FROM FPO	SOURCING, PROCESSING, STORAGE, WAREHOUSE, READY TO USE INFRASTRUCTURE	TESTING, PROCESSING, SALES .	training halls, canteen, creche, medical centre, lab testing, etc	educational, healthcare, sport and leisure, recreational and gastronomic facilities	an agricultural/rural tourism accommodation, and also build a winery and wine tasting area	tourist restover
INNOVATIONS	TRAINING INSTITUTE	FOOD PROCESSING TRAINING INSTITUTE	ONLY PROCESSING AND READY TO LEASE PLOTS	INSTITUTE, PROCESSING, SALES, TESTING	institute (training centre), organic farming, nrsery	introduce substantially more green space within the city's urban fabric		
CROPS PROCESSED	VEGETABLE, FRUITS	VEGETABLE, FRUITS	VEGETABLES,FRUITS,SPICES, DAIRY, COCONUT		mango, banana, potato, frapes, pomegranate, coconut, lemon, etc		WINEYARD	
ACCOMODATION ON SITE	AVAILABLE	NOT AVAILABLE	NO ACCOMODATION FACILITY	AVAILABLE	AVAILABLE	NO ACCOMODATION FACILITY	AVAILABLE	NO ACCOMODATION FACILITY
CANTEEN	DO NOT HAVE A CANTEEN BLOCK	DO NOT HAVE A CANTEEN BLOCK	HAVE A CANTEEN BLOCK	HAVE A CANTEEN BLOCK	HAVE A CANTEEN BLOCK			
GREEN SPACE AND RECREATIONAL AREA	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT	PRESENT
LOADING AND UNLOADING SPACE	USALLY DONE IN PARKING AREA	USALLY DONE IN PARKING AREA	USALLY DONE IN PARKING AREA	PRESENT	PRESENT			
TYPES OF STOREGE FACILITY	BOTH COLD AND DRY STORAGE	BOTH COLD AND DRY STORAGE	BOTH COLD AND DRY STORAGE		BOTH COLD AND DRY STORAGE			
MULTI-PURPOSE AREA	NOT THERE	NOT THERE	PRESENT		PRESENT	PRESENT	PRESENT	PRESENT
PARKING	AVAILABLE FOR LARGE TRUCKS (TRUCK TERMINAL)	AVAILABLE FOR LARGE TRUCKS	AVAILABLE FOR LARGE TRUCKS	AVAILABLE FOR ALL VEHICLES	AVAILABLE FOR LARGE TRUCKS	AVAILABLE		

SERVICES		WAREHOUSE, WATER SUPPLY SYSTEM, POWER STATION, WASTE DISPOSAL, FIRE FIGHTING SYSTEM	RAIN WATER HARVESTING, ALTERNET ENERGY SOURCE, WASTE WATER TREATMENT, WARE AND POWER SUPPLY SYSTEM		RAIN WATER HARVESTING, ALTERNET ENERGY SOURCE, WASTE WATER TREATMENT, WARE AND POWER SUPPLY SYSTEM			
TOURISM INFLUNCE	NO TOURISM INFLUNCE IN PROJECT	NO TOURISM INFLUNCE IN PROJECT	NO TOURISM INFLUNCE IN PROJECT		NO TOURISM INFLUNCE IN PROJECT	YES	YES	YES
PROXIMITY TO AGRO RAW MATERIALS	CLOSE PROXIMITY	CLOSE PROXIMITY	FAR PROXIMITY	CLOSE PROXIMITY	CLOSE PROXIMITY	CLOSE PROXIMITY	CLOSE PROXIMITY	
IMAGES								
16AR13		**CASE STUDY COMPARITIVE ANALYSIS**					**AQSA GAZANFAR MIRAJKAR**	

TENTATIVE ARCHITECTURAL SPACE PROGRAME							
SR NO.	SPACE	SUBSPACE	AREA(sqmt.)	PURPOSE	TYPE OF SPACE	USER TYPE	QUALITY OF SPACE
1	ADMIN	RECEPTION	40	GOVERNANCE	PUBLIC	ALL	HABITABLE, COMFORTABLE
		Waiting	20				
		Account's OFFICE	25				
		VISITOR CENTER	30				
		MANAGER ROOM	20				
		DIRECTOR OFFICE	20				
		CONFERENCE ROOM	60				
		PANTRY	30				
		TOILET	35				
		STAFF ROOM	25				
		SECURITY AND MAINTANANCES	30				
2	PARKING	TRUCK TERMINAL	60	PARKING	PUBLIC	ALL	NON HABITABLE
		VISITORS PARKING	100				
		STAFF PARKING	30				
3	PROCESSING	PROCESSING AREA	300	PROCESSING	PUBLIC	STAFF	HABITABLE, COMFORTABLE
		RIPENING AREA	110				
		COLD STORAGE	60				
		DRY STORAGE	110				
4	SERVICES	POWER STATION	30	SERVICES	PUBLIC	STAFF	NON HABITABLE
		WATER STATION	30				
		FIRE STATION	20				
5	STAFF	STAFF TRAINING AREA	120	FACILITIES	PUBLIC	STAFF	HABITABLE, COMFORTABLE
		STAFF BLOCK	60				
		STAY	110				
		CANTEEN	60				
		CRECHE	30				
		MEDICAL CENTER	30				
		TOILETS	50				
6	COMMERCIAL	SHOPPING AREA	100	REVENEW GENERATION	PUBLIC	ALL	COMFORTABLE
		MEDICAL CENTER	30				
		AMPHI	110				
		HORTI-THEARPY AREA	60				
		PAVELION	40				
		TOILETS	30				
7	OPEN SPACE	GARDEN	1000	RECREATIONAL SPACES	PUBLIC	ALL	
		NURSARY					
		RECREATIONAL AREA					
TOTAL SPACE REQUIRED			3015				

1.SITE CONTEXT :

CONTEXT OF THE SITE PLAYS A VERY SIGNIFICANT ROLE IN THIS PROPOSAL AS BOTH TOURISM AND INDUSTRY IS BASED ON THE AGRICULTURE. AS STUDIED IN CASE STUDIES ALL THE PROJECTS HAVE CLOSE PROXIMITY TO AGRICULTURE C ONTEXT AND SO THIS PROPOSAL WILL ALSO HAVE TO BE IN CLOSE PROXIMITY TO AGRICULTURE, TOURISM AND RAW MATERIALS.

2. BLEND OF RURAL AND URBAN FABRIC :

AS THE PROPOSAL WILL BE A BLEND OF TOURISM AND AGRICULTURE IT IS VERY IMPORTANT FOR THE PROPOSAL TO STAND OUT AND HAVE TO BE INSPIRED AND THEREFORE IT IS VERY IMPORTANT FOR THE PROPOSAL TO HAVE A BLEND OF URBAN AND RURAL FABRIC SO AS TO ATRRACT TOURISTS.

3.MATERIALS :

AS THE PROPOSAL IS REGION SPECIFIC IT IS VERY IMPORTANT THAT IT HAVE CHARACTERSTICS OF THE SPCIFIC REGION AND CAN BE ACCEPTABLE BY THE REGION AND THEREFORE MATERIALOF THE PROPOSAL A VERY IMPORTANT ASPECT TO DESIGN THE PROJECT. LOCALLY AVAILABLE AND TRADITIONAL MATERIALS WILL BE VERY FEASBLE AND ACCEPTABLE FOR THE PROPOSAL TO BLEND WITH SURROUNDING AREA OF REGION.

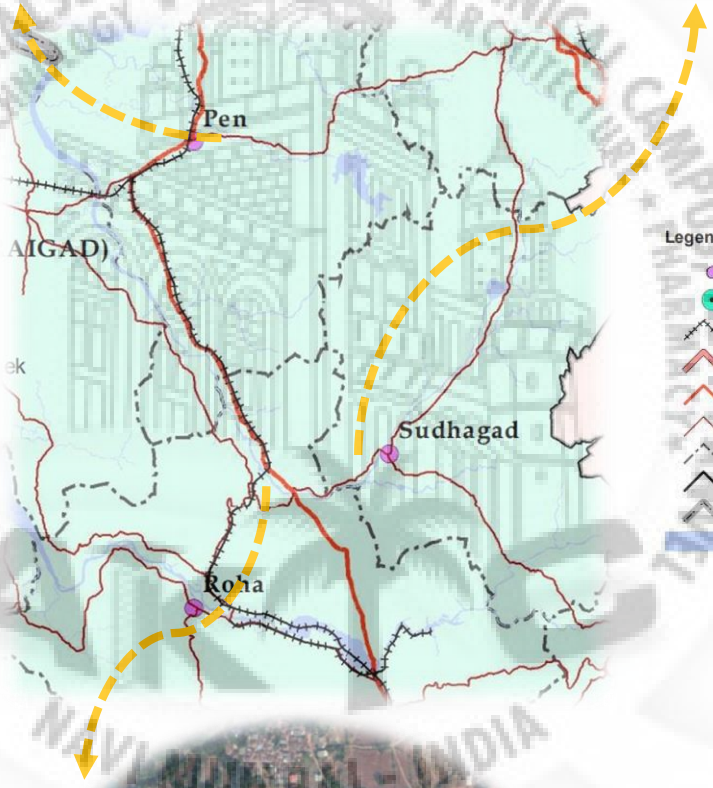
4. TECHNOLOGY :

INCOOPERATION OF VARIOUS CONSTRUCTION TECCHNOLOGY ALONG WITH THE LOCAL CONSTRUCTION TECHNOLOGY TO ENHANCE AND MAKE THE PROJECT SUSTAINALBE IS VERY IMPORTANT.

7 SITE SELECTION

1
LOCATION :
VADKHAL,
PEN

2
LOCATION :
RABGAON,
SUDHAGAD



3
LOCATION :
PATANSAI,
ROHA

Fig. 7.1 shows sites selected

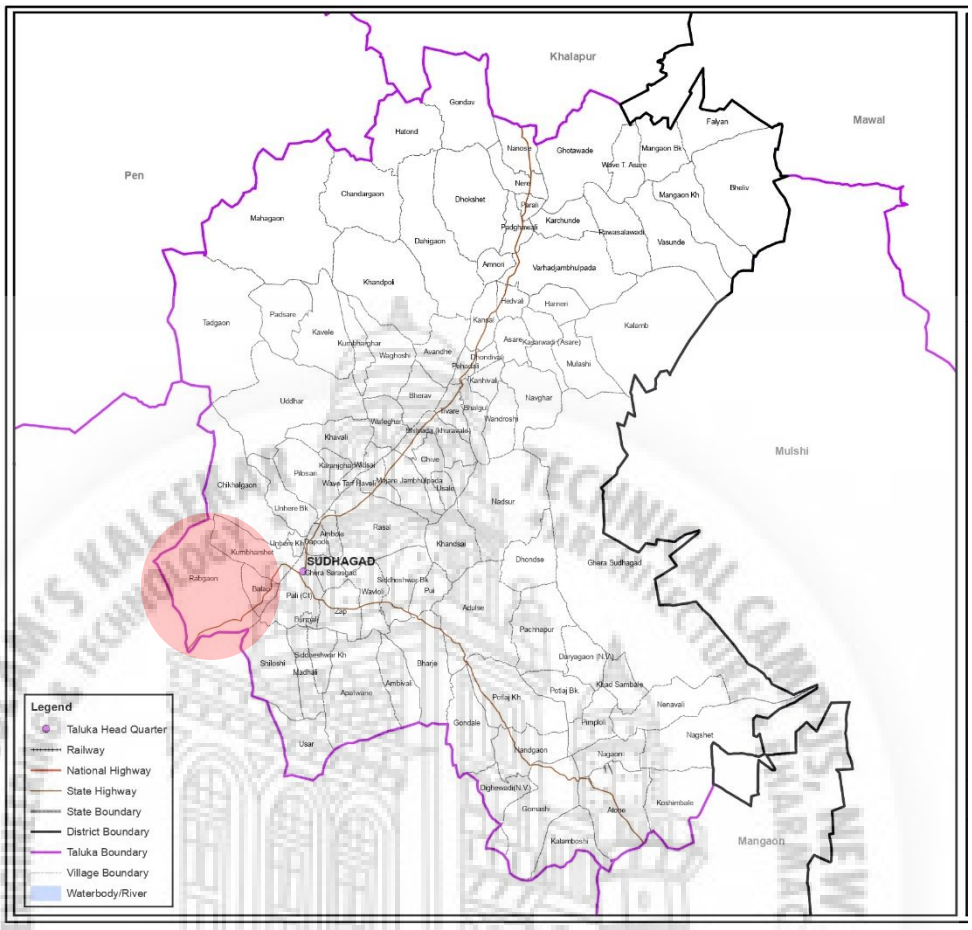
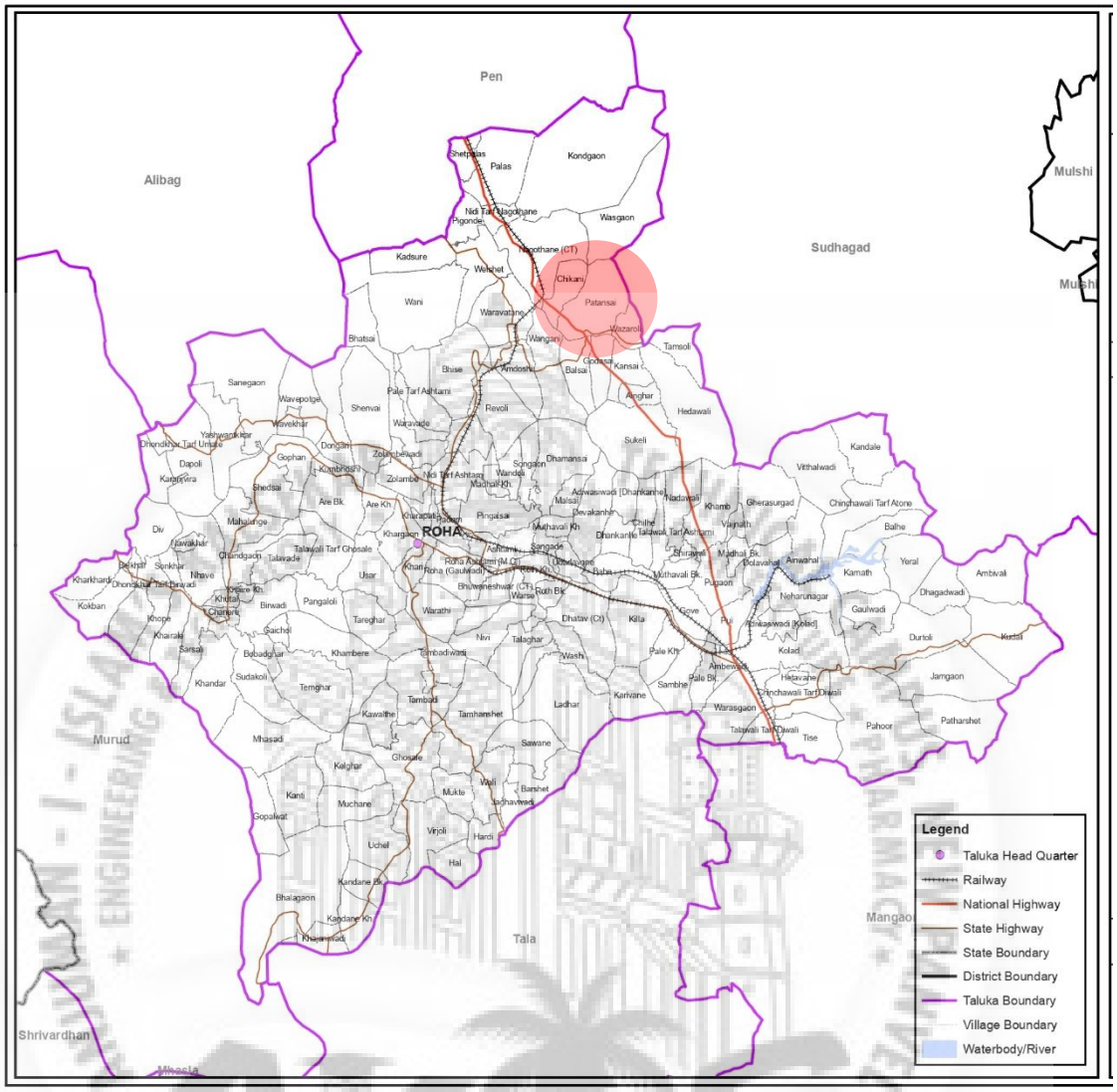


Fig. 7.2 demarcation of Rabgaon



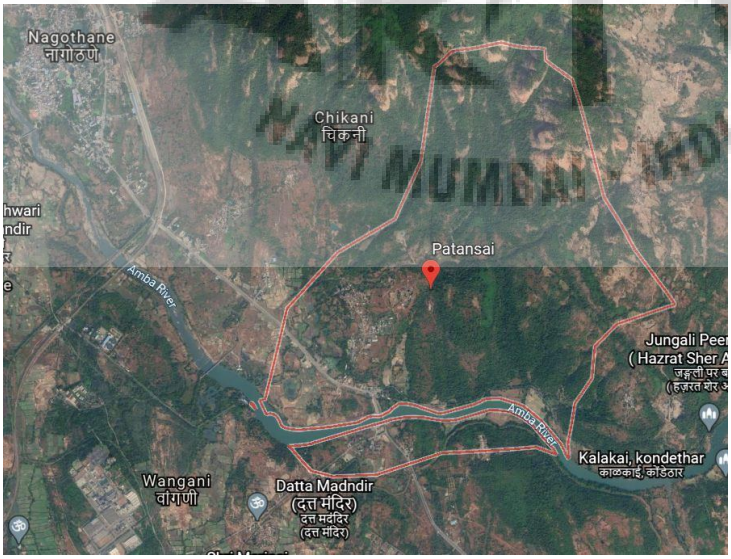


Fig. 7.3 demarcation of Patansai.

7.1 COMPARATIVE ANALYSIS

1. AVAILABILITY OF RESOURCES FOR PROCESSING :

Availability of resources play a vital role in this particular proposal as all the the products to be produced requires agro raw material for processing. As per the below statistics Roha and Sudhagad taluka have all the major fruits and resources available fi=or processing and has a potential for food processing. As per the above study it is seen that major food processing units developed and proposed are majorly focused in Sindudurg and Ratnagiri district of konkan and thus Raigad district though having potential in resources and raw materials are still untouched in this field.

Table 26: Area, Production and Yield of Major Horticulture Crops

Crops	Taluka	Area (ha)						Production (q)					Yield (q/ha)		
		Irrigated	%	Rainfed	%	Net sown area	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Mango	Alibag	0.00	0.00	3490	18.39	18979	3490.00	0.00	0.00	65210	100.00	65210	0.00	18.7	9.34
	Pen	0.00	0.00	31.69	0.20	15749	31.69	0.00	0.00	504.12	100.00	504	0.00	15.9	7.95
	Murud	0.00	0.00	684	7.56	9047	684.00	0.00	0.00	9740	100.00	9740	0.00	14.2	7.12
	Karjat	40.00	0.29	1010	7.36	13717	1050	608	3.42	17190	96.58	17798	15.20	17.0	16.11
	Khalapur	0.00	10.00	2410.00	31.79	7581	2410.00	0.00	0.00	42870	100.00	42870	0.00	17.8	8.89
	Panvel	0.00	0.00	551.91	3.47	15901	551.91	0.00	0.00	8486	100.00	8486	0.00	15.4	7.69
	Uran	0.00	0.00	157.95	3.31	4776	157.95	0.00	0.00	2701	100.00	2701	0.00	17.1	8.55
	Mangaon	0.00	0.00	1053	7.93	13272	1053.00	0.00	0.00	18007	100.00	18007	0.00	17.1	8.55
	Tala	0.00	0.00	497	7.64	6509	497.00	0.00	0.00	7443	100.00	7443	0.00	15.0	7.49
	Roha	0.00	0.00	1437	7.94	18098	1437.00	0.00	0.00	26303	100.00	26303	0.00	18.3	9.15
	Sudhagad	58	0.39	608	4.10	14824	666.00	1002	9.49	9552	90.51	10554	17.28	15.7	16.49
	Mahad	910	3.23	0.00	0.00	28190	910.00	15290	100.00	0.00	0.00	15290	16.80	0.00	8.40
	Poladpur	21.00	0.18	0.00	0.00	11989	21.00	299	100.00	0.00	0.00	299	14.24	0.00	7.12
	Mhasala	6.77	0.11	1338.53	22.18	6035	1345.30	108	0.46	23432	99.54	23540	15.98	17.5	16.74
	Shrivardhan	0.00	0.00	2100	27.03	7770	2100.00	0.00	0.00	38900	100.00	38900	0.00	18.5	9.26
	Total	1035.77	0.54	11879.08	6.17	192437	16404.85	#######	6.02	270338.12	93.98	287645	15.9	14.55	15.22

Table 26: Area, Production and Yield of Major Horticulture Crops contd...

Crops	Taluka	Area (ha)						Production (q)					Yield (q/ha)		
		Irrigated	%	Rainfed	%	Net sown area	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	8	9	10	9	10	11	12	13	14	15
Cashew	Alibag	0.00	0.00	32	0.17	18979	32.00	0.00	0.00	8.98	100.00	8.98	0.00	0.28	0.02
	Pen	0.00	0.00	32	0.20	15749	31.69	0.00	0.00	9.46	100.00	9.46	0.00	0.30	0.02
	Murud	0.00	0.00	0.00	0.00	9047	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Karjat	0.00	0.00	31	0.23	13717	31.00	0.00	0.00	9.54	100.00	9.54	0.00	0.31	0.15
	Khalapur	0.00	0.00	240	3.17	7581	240.00	0.00	0.00	81.60	100.00	81.60	0.00	0.34	0.17
	Panvel	0.00	0.00	20	0.13	15901	20.00	0.00	0.00	5.40	100.00	5.40	0.00	0.27	0.14
	Uran	0.00	0.00	0.00	0.00	4776	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mangaon	0.00	0.00	372	2.80	13272	372.00	0.00	0.00	110.48	100.00	110.48	0.00	0.30	0.15
	Tala	0.00	0.00	175	2.69	6509	175.00	0.00	0.00	56.40	100.00	56.40	0.00	0.32	0.16
	Roha	0.00	0.00	293	1.62	18098	293.00	0.00	0.00	95.62	100.00	95.62	0.00	0.33	0.16
	Sudhagad	0.00	0.00	115	0.78	14824	115.00	0.00	0.00	38.10	100.00	38.10	0.00	0.33	0.17
	Mahad	0.00	0.00	95	0.34	28190	95.00	0.00	0.00	30.30	100.00	30.30	0.00	0.32	0.16
	Poladpur	0.00	0.00	95	0.79	11989	95.00	0.00	0.00	29.20	100.00	29.20	0.00	0.31	0.15
	Mhasala	3.45	0.06	305	5.05	6035	308.17	1.15	1.14	99.60	98.86	100.75	0.33	0.33	0.50
	Shrivardhan	0.00	0.00	645	8.30	7770	645.00	0.00	0.00	214.50	100.00	214.50	0.00	0.33	0.17
	Total	3.45	0.00	950	0.49	192437	2452.86	1.15	0.15	789.18	99.85	790.33	0.33	0.27	0.14

Table 26: Area, Production and Yield of Major Horticulture Crops contd..

Crops	Taluka	Area (ha)						Production (q)					Yield (q/ha)		
		Irrigated	%	Rainfed	%	Net sown area	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Coconut	Alibag	1950.00	10.27	0.00	0.00	18979.00	1950.00	########	100.00	0.00	0.00	15795.00	8.10	0.00	4.05
	Pen	0.00	0.00	591.43	3.76	15749.00	591.43	0.00	0.00	4494.87	100.00	4494.87	0.00	7.60	3.80
	Murud	602.00	6.65	0.00	0.00	9047.00	602.00	5538.40	0.00	0.00	0.00	5538.40	9.20	0.00	4.60
	Karjat	65.00	0.47	0.00	0.00	13717.00	65.00	442.00	100.00	0.00	0.00	442.00	6.80	0.00	3.40
	Khalapur	0.00	0.00	130.00	1.71	7581.00	130.00	0.00	0.00	845.00	100.00	845.00	0.00	6.50	3.25
	Panvel	32.39	0.20	0.00	0.00	15901.00	32.39	265.60	100.00	0.00	0.00	265.60	8.20	0.00	4.10
	Uran	35.73	0.75	0.00	0.00	4776.00	35.73	303.71	100.00	0.00	0.00	303.71	8.50	0.00	4.25
	Mangaon	0.00	0.00	45.00	0.34	13272.00	45.00	0.00	0.00	319.50	100.00	319.50	0.00	7.10	3.55
	Tala	20.00	0.31	0.00	0.00	6509.00	20.00	126.00	100.00	0.00	0.00	126.00	6.30	0.00	3.15
	Roha	107.00	0.59	0.00	0.00	18098.00	107.00	770.40	100.00	0.00	0.00	770.40	7.20	0.00	3.60
	Sudhagad	39.00	0.26	0.00	0.00	14824.00	39.00	296.40	100.00	0.00	0.00	296.40	7.60	0.00	3.80
	Mahad	98.00	0.35	0.00	0.00	28190.00	98.00	764.40	100.00	0.00	0.00	764.40	7.80	0.00	3.90
	Poladpur	0.00	0.00	0.00	0.00	11989.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mhasala	10.98	0.18	43.97	63.56	6035.00	54.95	69.17	22.89	233.04	77.11	302.22	6.30	5.30	5.80
	Shrivardhan	289.00	3.72	0.00	0.00	7770.00	289.00	2427.60	100.00	0.00	0.00	2427.60	8.40	0.00	4.20
	Total Raigad	3249.10	1.69	810.40	0.42	192437.00	4059.50	########	81.98	5892.41	18.02	32691.09	5.63	1.77	3.70

Table 26: Area, Production and Yield of Major Horticulture Crops contd..

Crops	Taluka	Area (ha)						Production (q)					Yield (q/ha)		
		Irrigated	%	Rainfed	%	Net sown area	Total	Irrigated	%	Rainfed	%	Total	Irrigated	Rainfed	Average
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Sapota	Alibag	16.00	0.08	0.00	0.00	18979	16.00	730	100	0.00	0.00	730	45.62	0.00	22.81
	Pen	44.40	0.28	0.00	0.00	15749	44.40	0.00	0.00	0.00	0.00	0.00	50.24	0.00	50.24
	Murud	0.00	0.00	0.00	0.00	9047	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Karjat	25.00	0.18	0.00	0.00	13717	25.00	100	50.00	100.00	50.00	200	0.00	55.20	27.60
	Khalapur	0.00	0.00	20.00	0.26	7581	20.00	0.00	0.00	5.00	100.00	5.00	0.00	50.78	25.39
	Panvel	14.15	0.09	0.00	0.00	15901	14.15	580.00	100.00	0.00	0.00	580	41	0.00	20.50
	Uran	0.00	0.00	0.00	0.00	4776	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mangaon	0.00	0.00	0.00	0.00	13272	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tala	0.00	0.00	0.00	0.00	6509	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roha	15.00	0.08	0.00	0.00	18098	15.00	810	100.00	0.00	0.00	810	54	0.00	27.00
	Sudhagad	19.00	0.13	0.00	0.00	14824	19.00	1045	100.00	0.00	0.00	1045	55	0.00	27.50
	Mahad	21.00	0.07	0.00	0.00	28190	21.00	595	100.00	0.00	0.00	595	42	0.00	21.00
	Poladpur	0.00	0.00	0.00	0.00	11989	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Mhasala	0.00	0.00	0.00	0.00	6035	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Shrivardhan	0.00	0.00	0.00	0.00	7770	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total Raigad	154.55	0.08	20.00	0.01	192437	174.55	3860.00	97.35	105.00	2.65	3965.00	47.98	52.99	50.48

Fig. 7.4 crop statistics in region.

RABGAON	PATANSAI
As per the above statistics of crops Sudhagad taluka have more agricultural inputs in terms of raw material produce.	As per the above statistics of crops Roha taluka have comparatively less agricultural inputs in terms of raw material produce.

2. ACCESSIBILITY AND CONNECTIVITY :

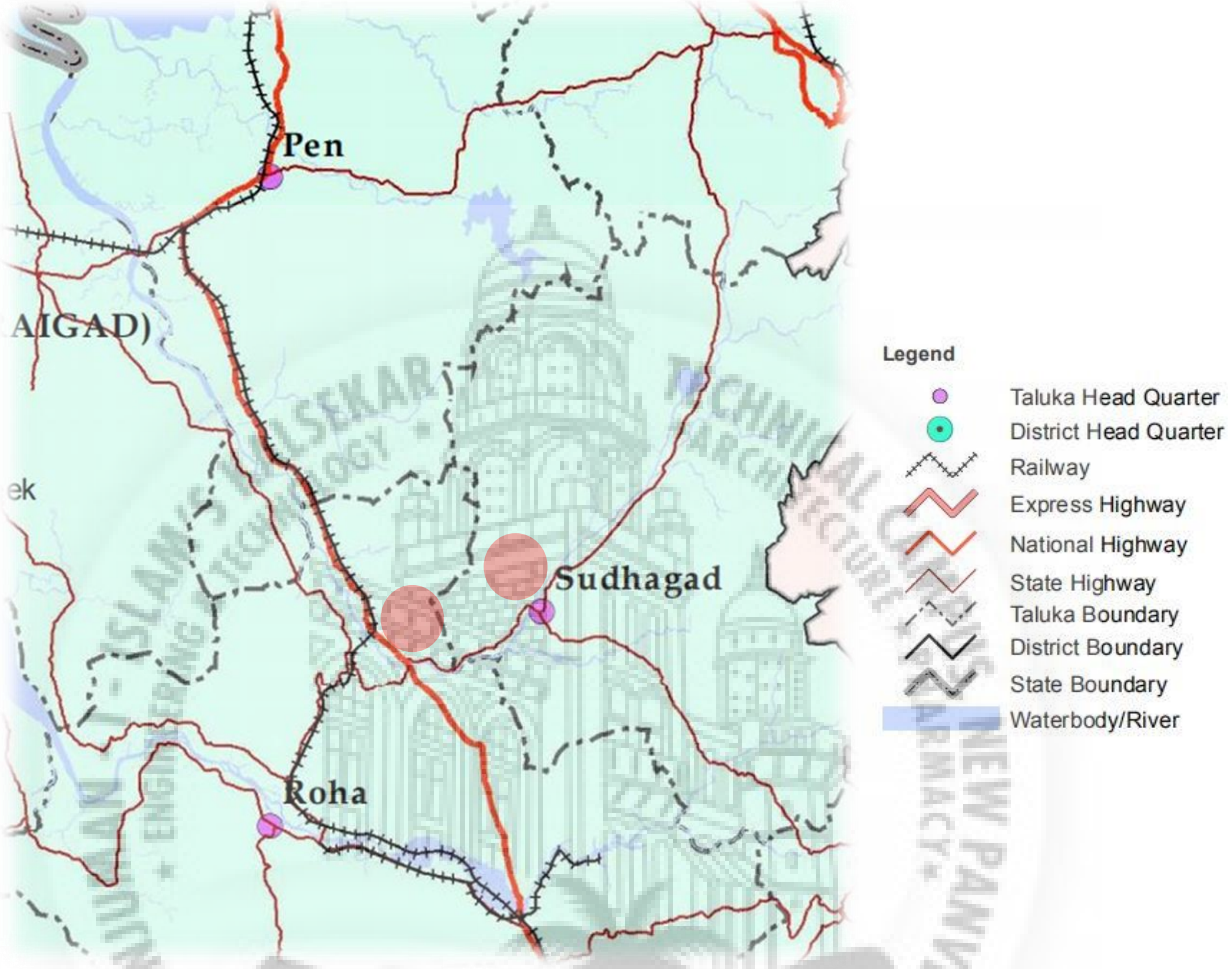


Fig. 7.5 map showing major highways connecting to sites.

RABGAON	PATANSAI
Rabgaon is connected to both major National (NH 66) as well as State highway it is almost less than 1KM inside National highway but is connected to State highway	Patansai is majorly connected to national highway (NH66) Mumbai Goa connecting corridor

3. WATER AVAILIBILITY :

Fig. 7.6 map showing river passing to sites.

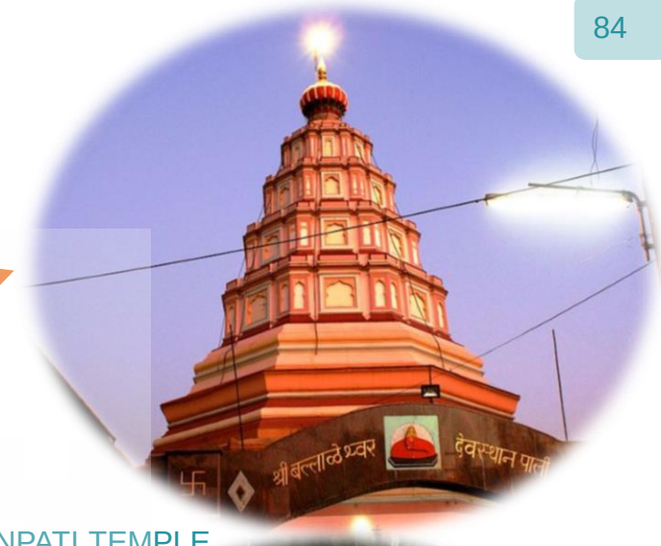
RABGAON	PATANSAI
Rabgaon is divided into two parts by Amba river which further moves towards Pune.	Patansai is divided into two parts by Amba river which further moves towards Pune.

4. TOURIST :

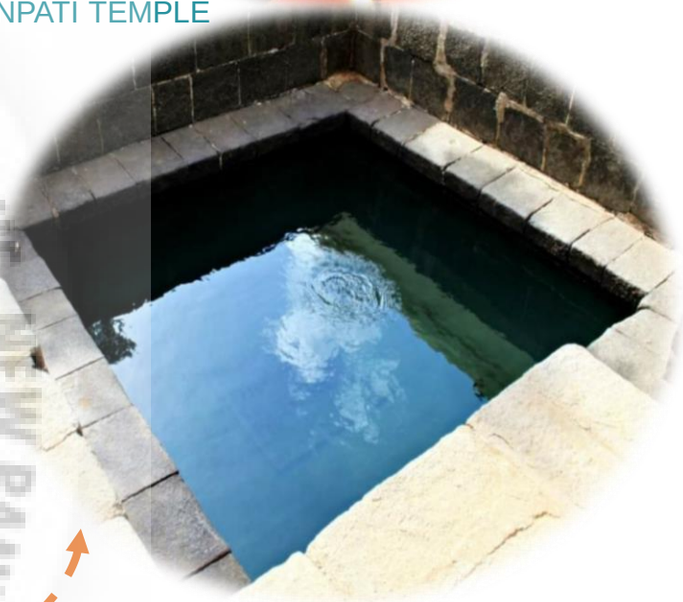
DAM

SANGAM

DARGHA



GANPATI TEMPLE

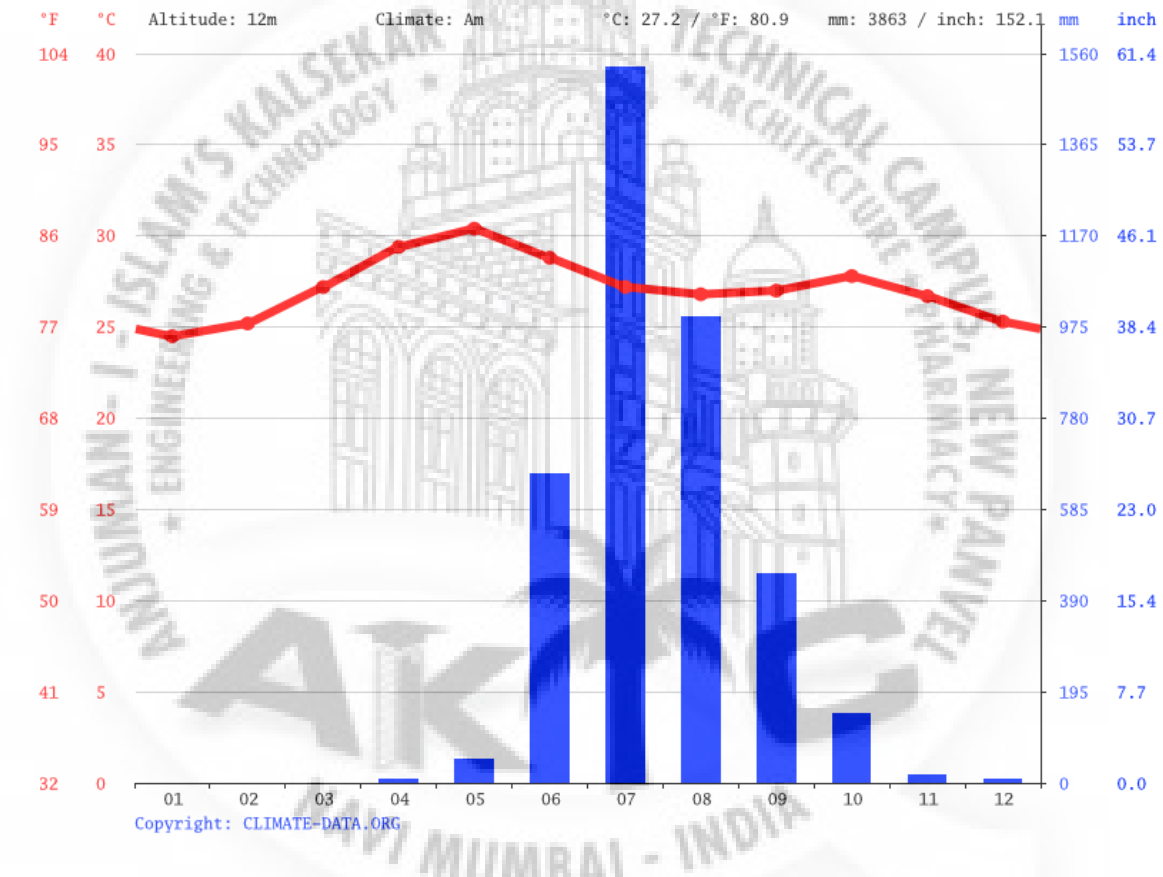


HOT WATER SPRING

SARASGAD FORT

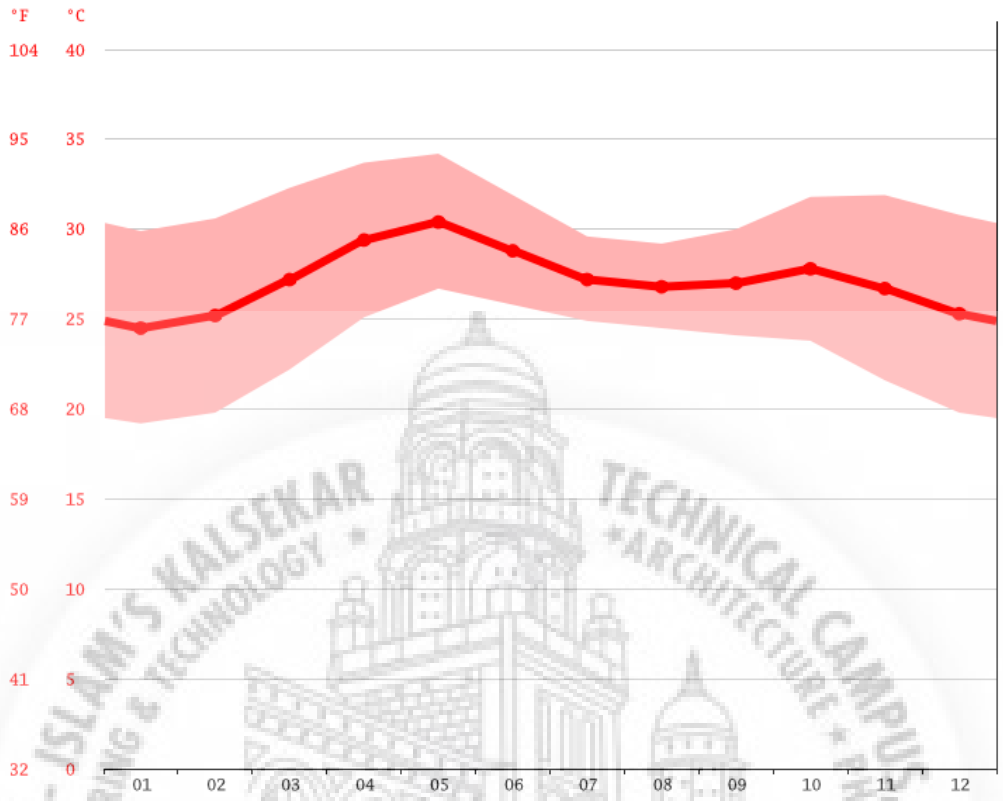
5. CLIMATE :

The climate is tropical in Sudhagad and Roha taluka. There is significant rainfall in most months of the year. The short dry season has little effect on the overall climate. The average annual temperature in Sudhagad and Roha taluka is 26.8 °c. The rainfall here averages 4187 mm.



The driest month is January. There is 0 mm | 0.0 inch of precipitation in January. Most precipitation falls in July, with an average of 1530 mm | 60.2 inch.

Fig. 7.7 Climate graph weather by month.



With an average of 30.4 °C | 86.7 °F, May is the warmest month. In January, the average temperature is 24.5 °C | 76.1 °F. It is the lowest average temperature of the whole year.

Average temperature graph

Fig. 7.8 Average temperature graph

About Patansai

Block / Tehsil → Roha

District → Raigarh

State → Maharashtra

According to Census 2011 information the location code or village code of Patansai village is 554337. Patansai village is located in Roha Tehsil of Raigarh district in Maharashtra, India. It is situated 10km away from sub-district headquarter Roha Ashtami and 50km away from district headquarter Alibag. As per 2009 stats, Patansai village is also a gram panchayat.

The total geographical area of village is 551.52 hectares. Patansai has a total population of 898 peoples. There are about 207 houses in Patansai village. As per 2019 stats, Patansai villages comes under Pen assembly & Raigad parliamentary constituency. Roha Ashtami is nearest town to Patansai which is approximately 10km away.

About Rabgaon

Block / Tehsil → Sudhagad

District → Raigarh

State → Maharashtra

According to Census 2011 information the location code or village code of Rabgaon village is 554503. Rabgaon village is located in Sudhagad Tehsil of Raigarh district in Maharashtra, India. It is situated 5km away from sub-district headquarter Pali and 65km away from district headquarter Alibag. As per 2009 stats, Rabgaon village is also a gram panchayat.

The total geographical area of village is 977.54 hectares. Rabgaon has a total population of 1,592 peoples. There are about 407 houses in Rabgaon village. Roha Ashtami is nearest town to Rabgaon which is approximately 25km away.

JUSTIFICATION :

From the above data and statistics it is justified that this region and areas are feasible for this type of project. By taking in consideration all the factors required for an agro tourism industry to establish these regions are well justified and appropriate for the project.

9 LIST OF FIGURES

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