

TOURIST LODGE AT NUJHUM DWIP, HATIYA.

By

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07208013

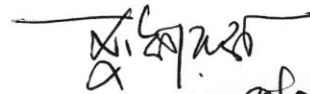
Arc 512
SEMINAR II

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ABSTRACT

This paper is an attempt to understand the context of tourism at *Nijhum Dwip (Chawr Osman)*. Data collected through site visits and literary sources are put forward here to analyse the site and its surroundings. The aim of the study is to help design a Tourist Lodge at a 47 acres site along the south western edge of the island. The primary concern of investigation are (i) the *Keora Forest (National Park)*, (ii) the local human living pattern and the surrounding ecosystem, and (iii) the site's vulnerability to Tropical Cyclones.

It is expected that these collection of data and its analysis will contribute to develop a suitable set of program and the capacity of the envisaged Tourist Lodge.

ACKNOWLEDGEMENT

I would like to thank all my teachers and my friends for their consistent support to help me accomplish this paper and my design exercise. It would be utterly impossible for me alone to present the information and my work without their help.

INTRODUCTION

The large stretch of *Keora* Forest (man-made), with its star-celebrity the Spotted Deer, and the playful winter migratory birds along the Tropical northern coast of Bay of Bengal makes up the perfect setting to attract numerous tourists to this island. Evidently, the increase in number of tourists and enthusiasts, in the last three years, have gathered the attention of various investors. Also, the Bangladesh Government's acknowledgement of *Nijhum Dwip* as a Union of *Hatiya Thana*, in 2011, has altered the land price and the interest of local people on a financial context.

This whole shift in scenario is resulting in more and more visitors annually to *Nijhum Dwip*. On arrival, these guests (as locally addressed) find themselves in vigorous interaction with the local people while indulging themselves in the experiences and resources of the amazing natural site.

On the contrary, of its beauty, this *inland* island like many others of its kind in the northern coast of the Indian Ocean is subject to the wrath of multiple Tropical Cyclone surges every year. Frequently enough, these Cyclones grow into Super Cyclones tearing down everything in its path. Loss of lives and infrastructure reach catastrophic levels. Yet, the wash-away of lives is followed by resettlement of migrators from nearby islands and mainland. This is a clear indication of the importance of the resources that are contained in the island.

Inhabitants of Chawr Osman, in particular, have had past experiences of destructive cyclone surges, in the last 50 years and are still vulnerable to future intensity of storm surges due to its location in the Bay of Bengal. The island's low elevation with respect to the sea level also puts it at risk of the global climate change issues, such as sea-level rise. *Nijhum Dwip* is seasonally (during *Monsoon* season) inundated by sea-water, disrupting normal way of life of the inhabitants.

The coastal afforestation initiative taken by the government for *Keora* plantation in these islands is a direct response to minimise the impact of the cyclone surges in the future. Various other studies and researches in many fields are going on, both nationally and internationally, to improve the livelihood of these tropical coastal plains, while keeping its resources un-exploited.

Nishorgo Network, allied with Bangladesh Ministry of Environment and Forest while funded by organizations like USAID, have been playing an active role in the development and conservation of Protected Areas (PA), such as *Nijhum Dwip*. In addition, International Union for Conservation of Nature (IUCN), collaborated with Bangladesh Forest Research Institute (BFRI), has been carrying out environmental researches to enrich the overall understanding of such unique eco-systems. All in the hope to reach better and efficient solutions for such presented situation where the beauty and wrath of nature interacts with the livelihood of the people in a visible three-dimensional space of coastal plain.

'The results suggest that natural assets with experienced human resource and financial support as well as excellent social relationship are the appropriate option for enhancing coastal fishing community resilience to withstand climate change disaster events.' (Hossain, *et al.*, 2013).

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Chapter **1**

BACKGROUND OF THE PROJECT

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1.1 Project Brief

Bangladesh government announced a group of 11 islands (southern edge of *Noakhali* district), namely "*Nijhum Dwip*", as National Park, in the hope to conserve the natural setting. *Chawr Osman*, one of these 11 islands, constitute the CORE ZONE of the park, and falls under the jurisdiction of '*Hatiya*' *pouroshobha*. Since this announcement in 2001, the proposal has been developed in two phases in 2007 and 2009.

As a potential new island, *Chawr Osman* attracts a substantial amount of attention of a variety of groups of people. Since the announcement of it to be a natural sanctuary, all of its users seem to be in partial light of the reality itself, of how to efficiently use this remarkable site. Moreover, to pose further hesitation for the users, its location in the Bay of Bengal leaves it as one of the most vulnerable to coastal calamities. Direct exposure to tidal effects makes this island an ever-shifting piece of land, and hence exhibits the maximum dramatics of the seasonal changes.

1.2 Project Introduction

The first and most crucially important group of people consists of the local farmers and fishermen. Though the small island sits in a salty sea, a large portion of the land inward is irrigable for crops. More and more of these small farmer communities are coming into existence due to migration of few families from the northern portion of *Hatiya* (mostly due loss of assets by coastal erosion).

The fishermen families tend to live in smaller communities spread out more around the edges of the island. Also, as almost half of the island is conserved forest area, many of these families have adapted to foraging the seasonal reward of the forest and selling them in local markets. The second group is a fairly small one with the *pouroshobha* officials and representatives who are in charge of maintaining the area. Another small group is made up of the entrepreneurs of small shops, hotels and services attending the inhabitants and the fourth group, the visitors. The visitors comprise of people traveling here for recreational, research and trading purposes. This group is mostly entertained by the NGOs that are stationed locally.

With all these activities of the users amongst the natural treasure in this enigmatic chunk of land, intervention by understanding and implementing order is now a necessity. Growth rate, just as visible to local people, is a major concern. Also with an increasing amount of tourist and researcher, new and innovative facilities are to be brought to the area, which needs careful inspection.

To my opinion, an intervention of architectural thought into this proposal can help the initiation and establishment of refined efficiency.

1.3 Aims and Objectives of the Project

The primary and the most crucial objective of the project is to bring together the programme of eco-tourism and adaptability of the structure in a coastal context. Dealing with local people and their coastal habitat along with the tourists, as they find themselves away from home, brings in the aim to realize the comfort zone of these people.

Objectives:

- to promote eco-tourism
- to conserve the environment and bio diversity
- to restore and prolong the community of new land
- to address the livelihood of inhabitants (fishermen community)
- to improve education and research scope
- to host the guests and the national park while creating a healthy and self- sustaining tourist spot

1.4 Aims and Objectives of the Project

The programme of the project will be to host the guests using:

- the understanding of **architecture**,
- the understanding of **nature** and its **eco-systems**,
- the **Guidelines of Eco-tourism** set by *Nishorgo Network*, supported by the lessons learnt in the projects funded by USAID, and
- other literary guidelines published by experienced architects (Hitesh Mehta)

1.5 Methodology

Research problem:

How can eco-tourism revitalize the coastal areas of Bangladesh?

I propose doing this by looking into the two important points of my scheme in detail:

Architecture: Investigating the local architecture. This is an important element of the design as the type of buildings, or villas, designed need to reflect the local culture and heritage of the area so that tourists can experience it firsthand.

- What is the local vernacular architecture?
- What are the materials used in constructing the local buildings?
- How are all of the above (materials, construction) related to the local climate, culture and society?
- Are there any precedents for this type of scheme being undertaken in other parts of Bangladesh?

Eco-tourism: Understanding the principles of ecotourism is important

- What is eco-tourism?
- What are the main principles of eco-tourism?
- How do the architecture and the eco-tourism principles reinforce each other?

The second important factor to consider is the existing plantation into which the scheme is being incorporated. The eco-resort is to sit within this working plantation without hindering its daily operations.

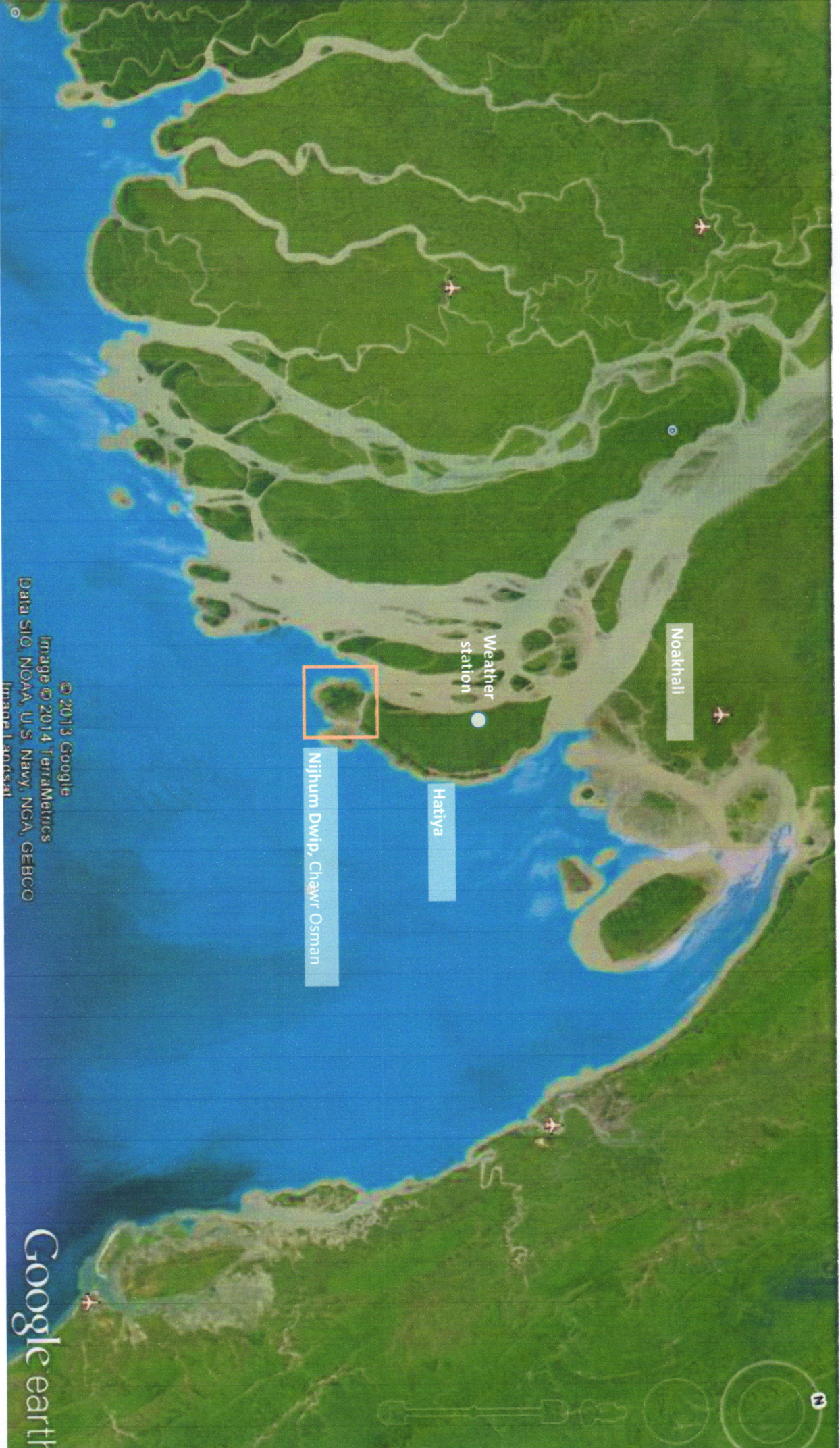
- Which areas of the plantation need to be kept private and which areas are to be opened up to the guests?
- What is the maximum allowable number of guests?
- What are the essential design and functionality components that need to be addressed for this scheme to work?

Chapter **2**
SITE APPRAISAL

INTERACTING WITH CYCLONE

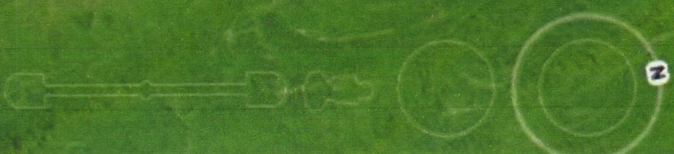
Tourist Lodge at Nijhum Dwip, Chawr Osman, Hatiya.





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Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Imagery Landsat

Google earth





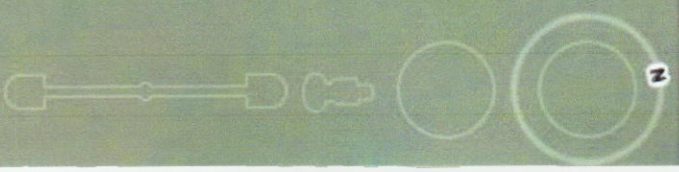
Nijhum Dwip, Chawr Osman

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Google earth





9,500 acres (Useable Land)

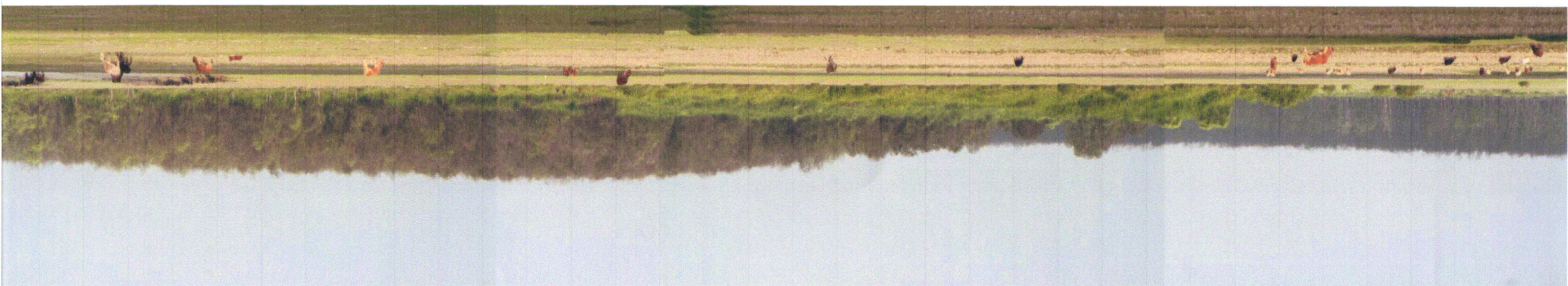
3,800 acres (Forest Area)

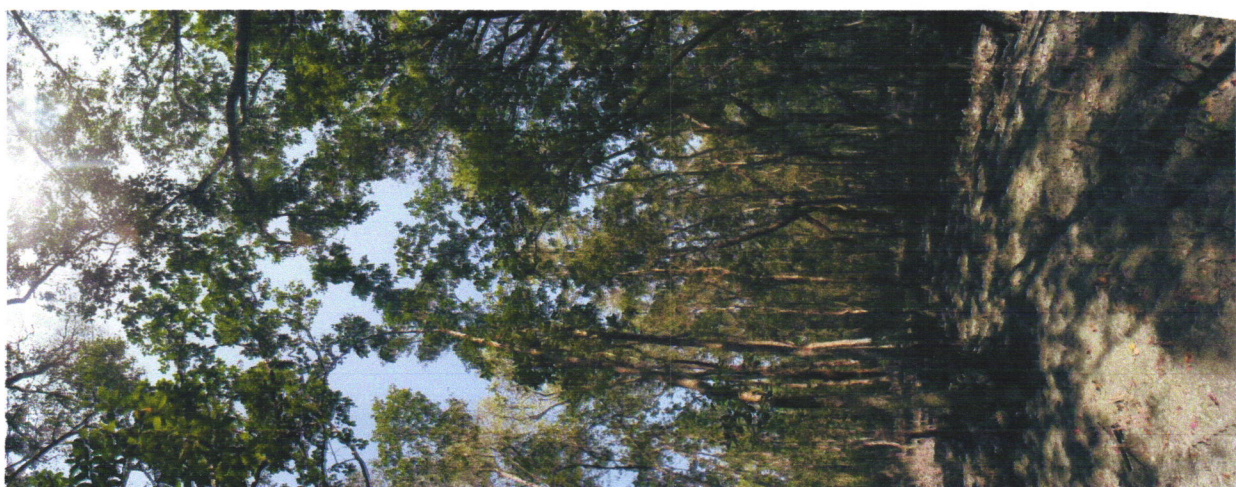
Legend

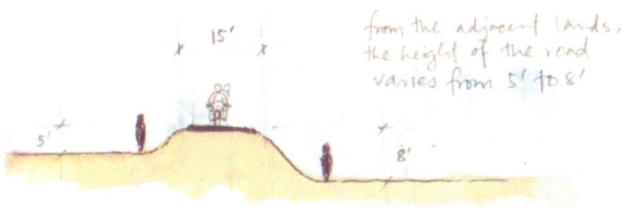
- LAND (Useable)
- NEW LAND FORMATION (below sea)
- FOREST (Korea)







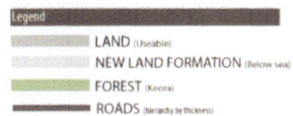




9.2 km Road running from North-East corner to South- West corner

5' to 8' Varying road HEIGHT

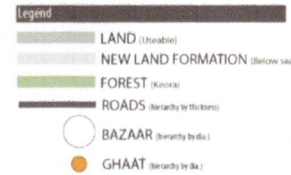
15' Wide road





CDSP BAZAAR
BONDORTILA BAZAAR
 BOU BAZAAR
 TUHIN BAZAAR
 MUKTI JODDHA BAZAAR
 SHAWTOPHUL BAZAAR
 ONCHER BAZAAR
NAMAR BAZAAR

MOKTARIA GHAAT
BONDORTILA BAZAAR GHAAT
BAWRO GHAAT
NAMAR BAZAAR GHAAT







NAMAR BAZAAR





85-135 visitors remaining

BONDORTILA BAZAAR

2 Hotels

30 + 15 bedding

Total Accommodation = 45

NAMAR BAZAAR

4 Hotels × 30 bedding

Total Accommodation = 120

165

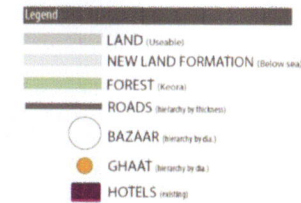
250 to 300 visitors every weekend during winter
(November- February)

3,000 to 4,000 visitors annually

15,000 inhabitants

Total Population (2015)

10,480 Last Population Census (2011)





- Legend**
- LAND (Unclassified)
 - NEW LAND FORMATION (Bulova area)
 - FOREST (Korak)
 - ROADS (Korak)
 - BAZAAR (Korak)
 - GHAAT (Korak)
 - HOTELS (Korak)
 - PROPOSALS (Korak)

HATIYA

MOKTARIA CHANNEL

Bondortila Bazaar

Namar Bazaar

Kobir Chawr

Domar Chawr

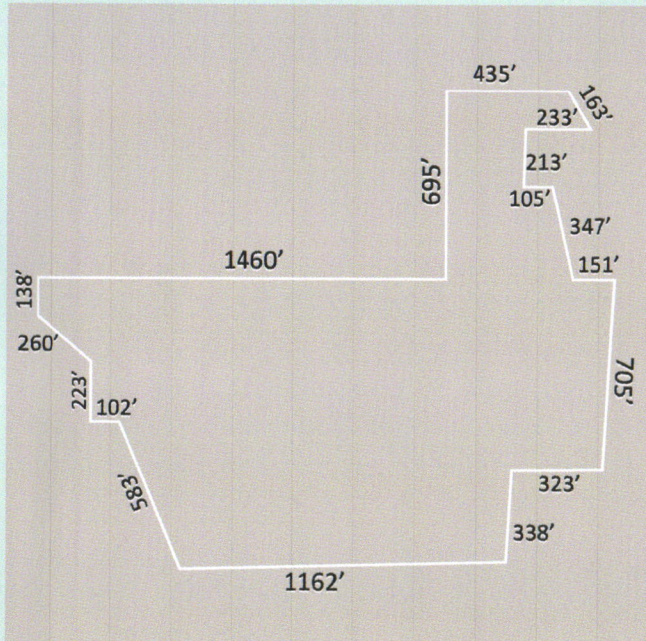
BAY of BENGAL





BAY
OF
BENGAL





AREA
47 acres

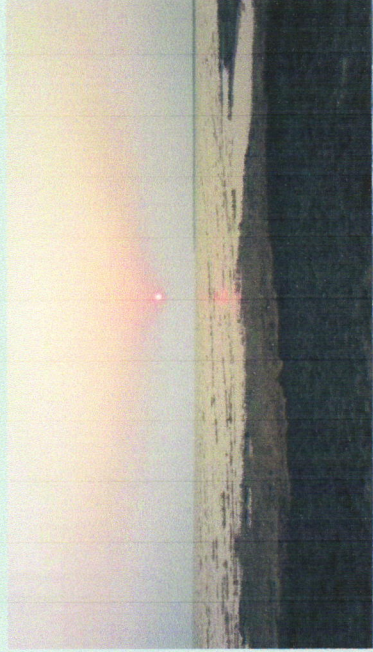
46.97 acres = 2,046,013 sq ft

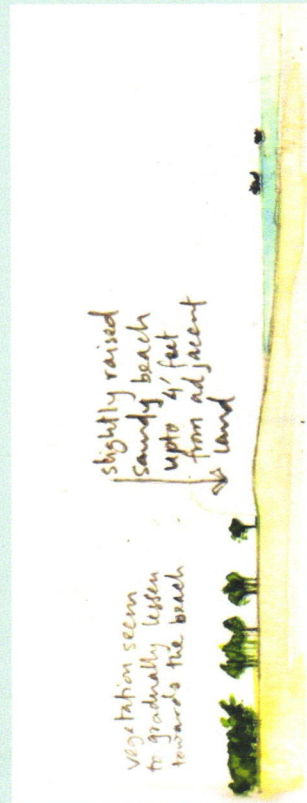
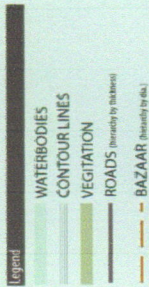
BAY
OF
BENGAL

Bawro Khal

Namar Bazaar

Chanto Khal





← irrigated soil, brown and hard,
green plants and flowers
attract bees and other insects

← sudden growth of coconut and
shupari trees

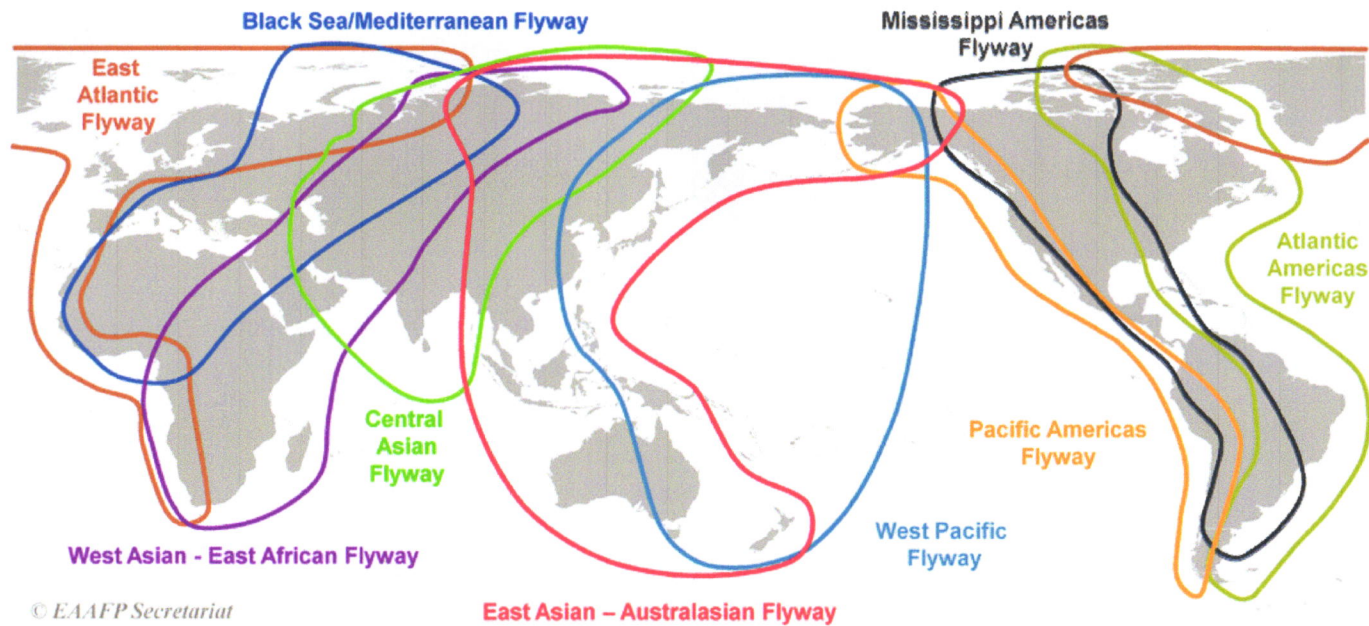
← slightly ~~dark~~ darker sand
fine grains, and larger.
crabs type 2 (large) and other
crustaceans

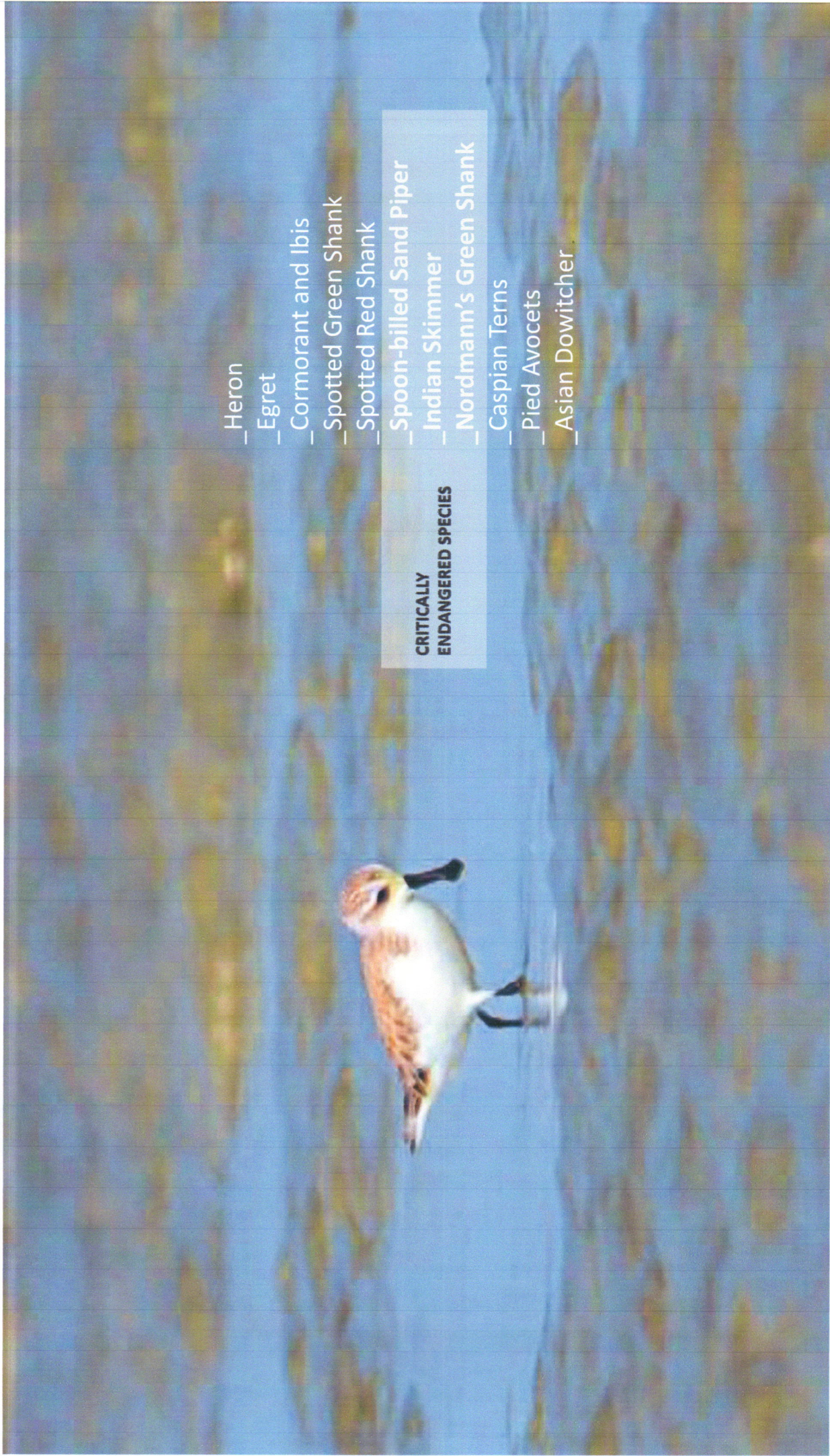
← light coloured sand, fine grain
wind pattern visible
crabs type 1 (red) and other
miniature crustaceans and
insects

← clay, dark in colour
home to small snails and
feeding ground for birds.



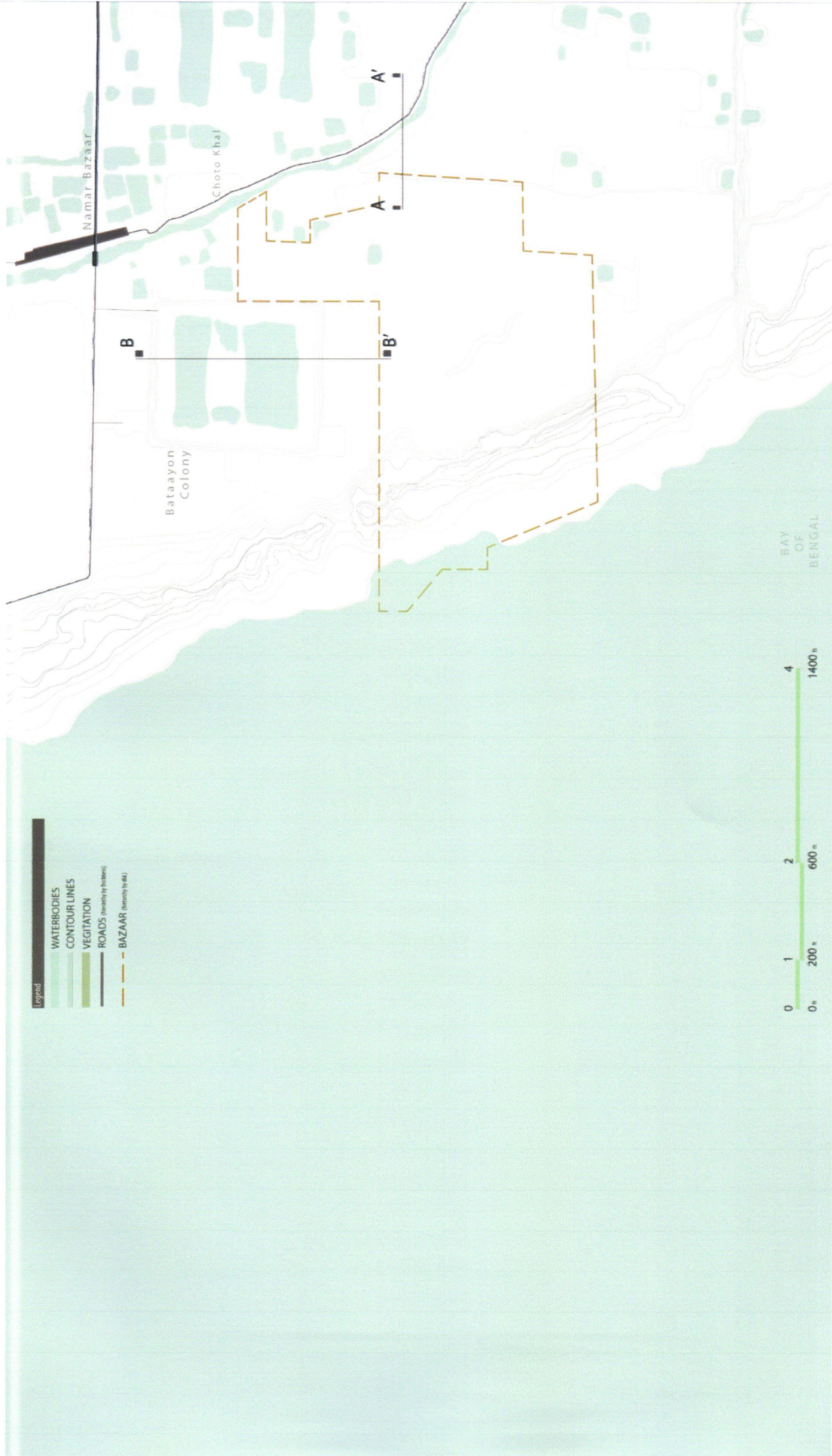


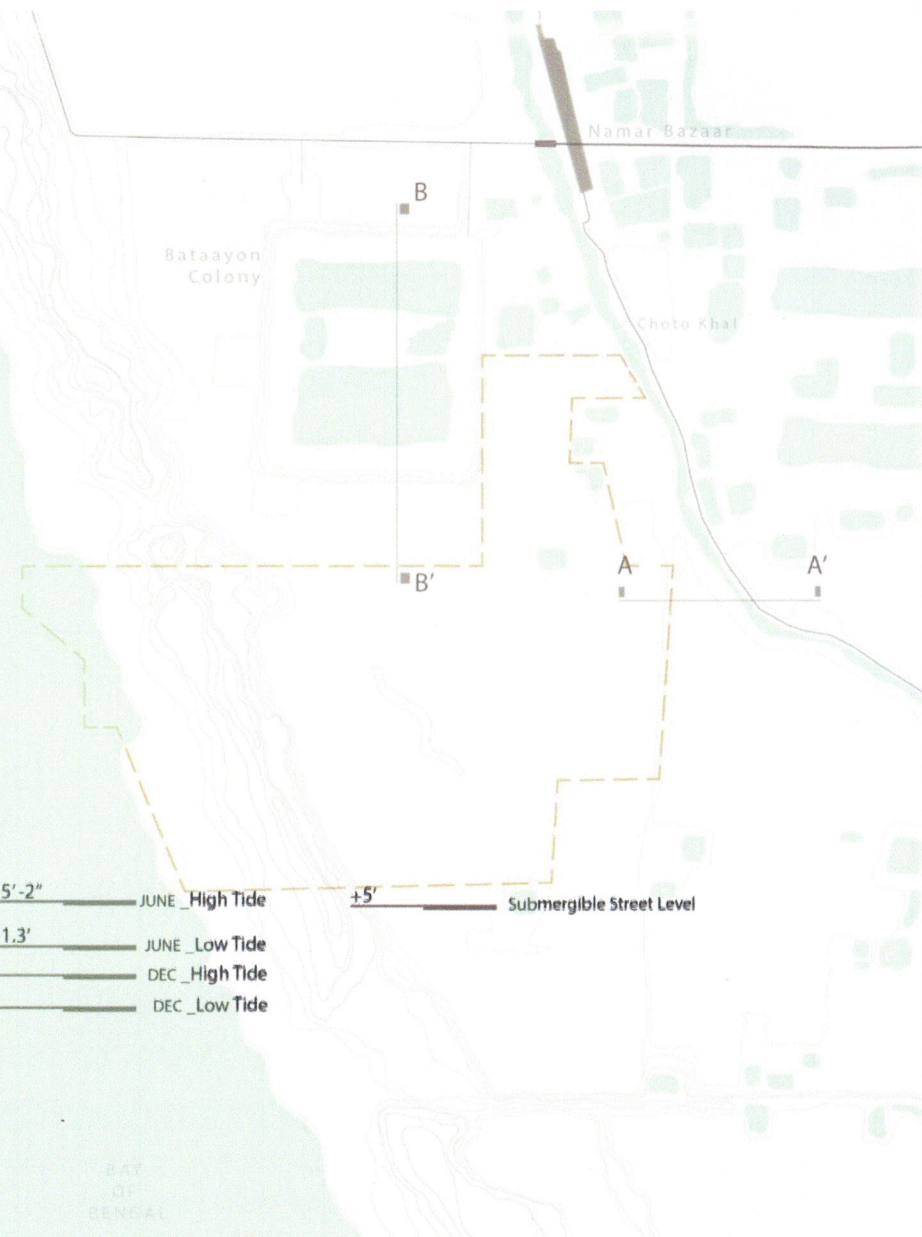
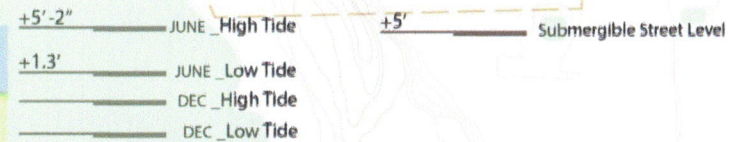
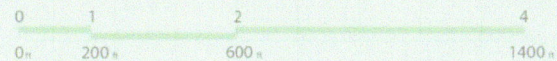
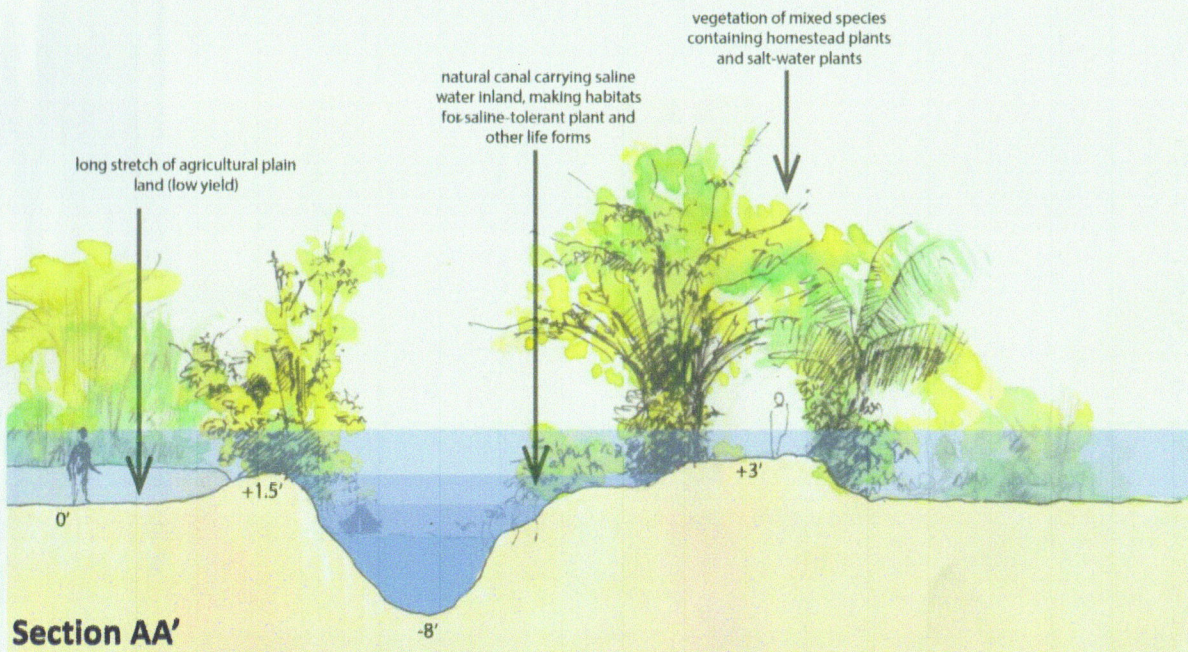




**CRITICALLY
ENDANGERED SPECIES**

- _ Heron
- _ Egret
- _ Cormorant and Ibis
- _ Spotted Green Shank
- _ Spotted Red Shank
- _ Spoon-billed Sand Piper
- _ Indian Skimmer
- _ Nordmann's Green Shank
- _ Caspian Terns
- _ Pied Avocets
- _ Asian Dowitcher





TRENCH
Runs along the perimeter, 6'-10' wide, readily used as waste dump area

UTHAN
extended Kitchen and living are

CIRCULATION
Ambulatory; running along the waterbody 5' to 10' wide occasionally connected to shared uthans

UTHAN
Mixed-use



Section BB'

+0'

i

-2.5'

+2'

i

i

i

i

i

+1.5'

i



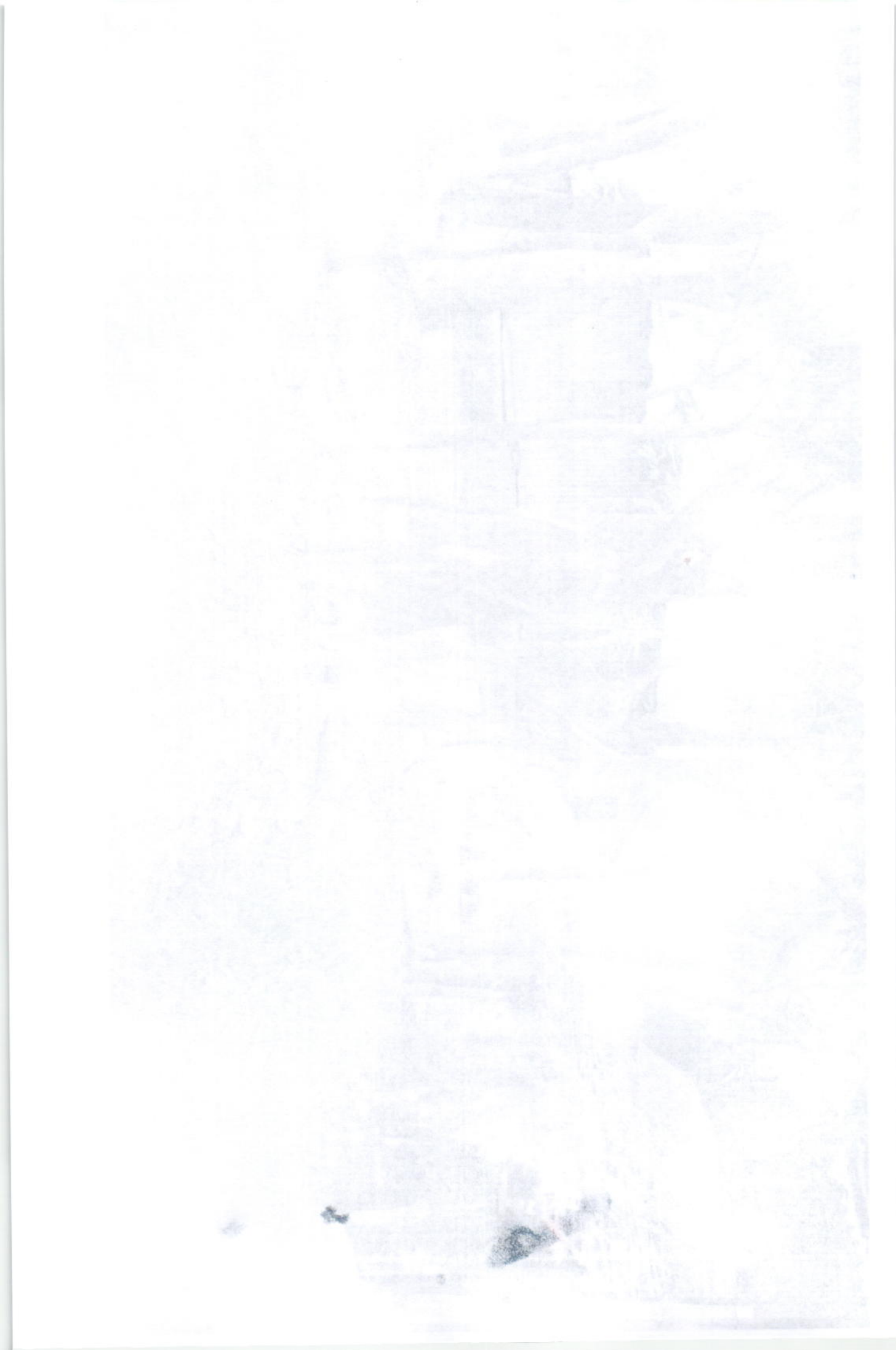


















Bataayon Colony

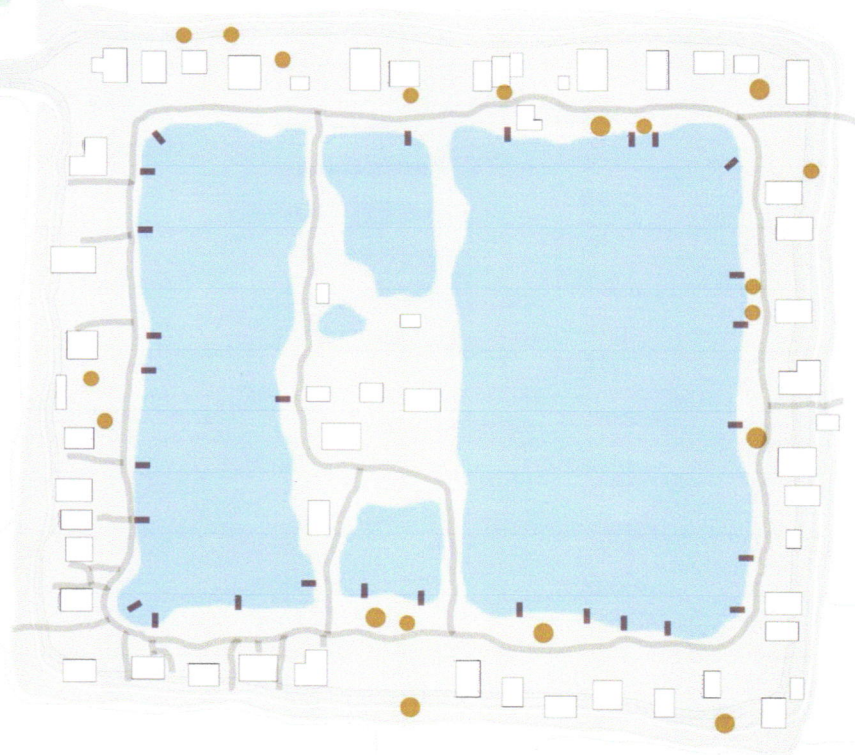
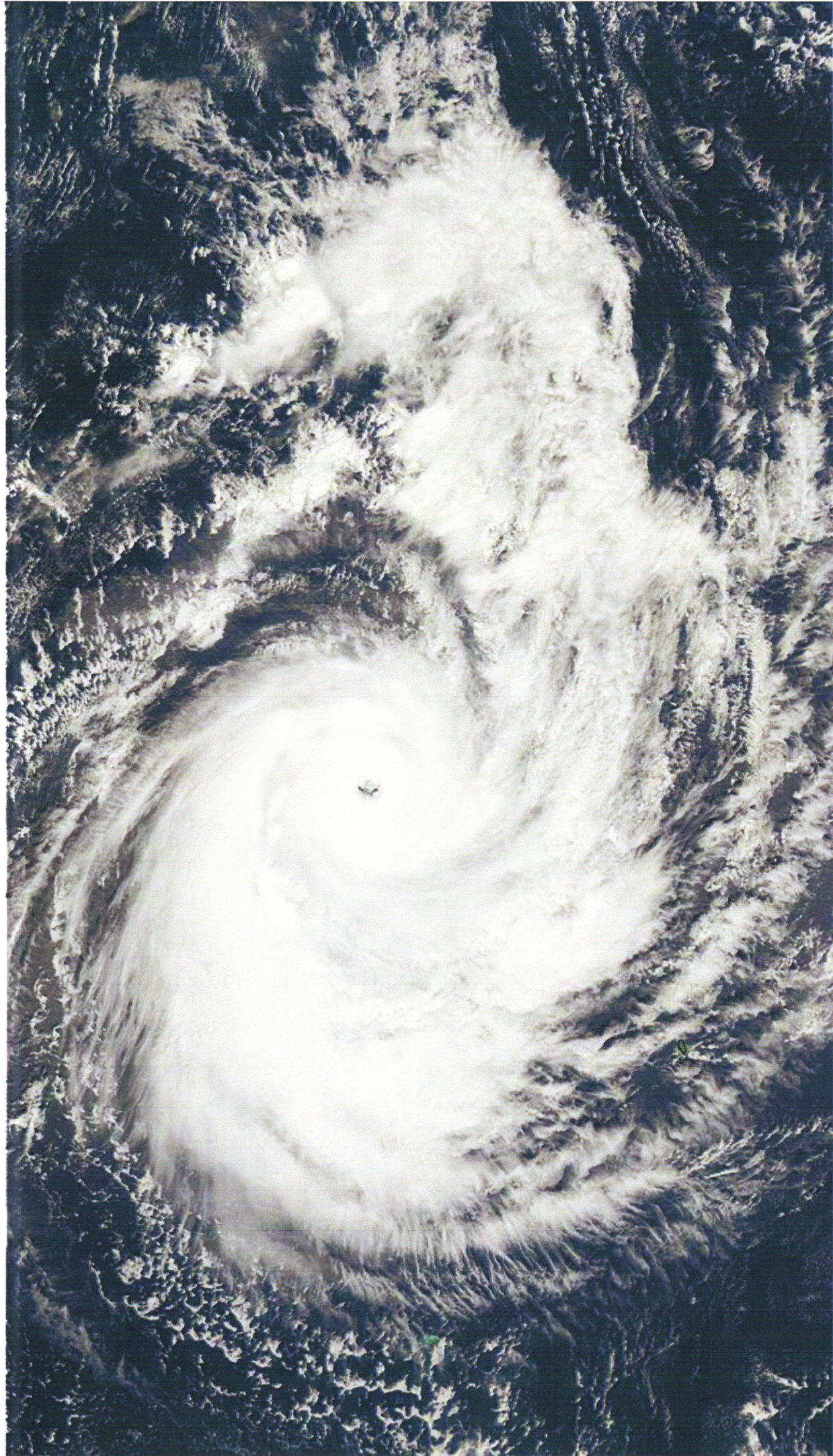


Fig Section showing analysis of spaces immediate to living space.





1970

1991

2001

2011

2015

1950

1960

1970

1980

1990

2000

2010

2020

- Isolated Fishermen Households

- Hindu Fishermen Community

- Afforestation (Keora)

- Muslim Fishermen Community
- Establishment of 9 Killas

- Announced as National Park

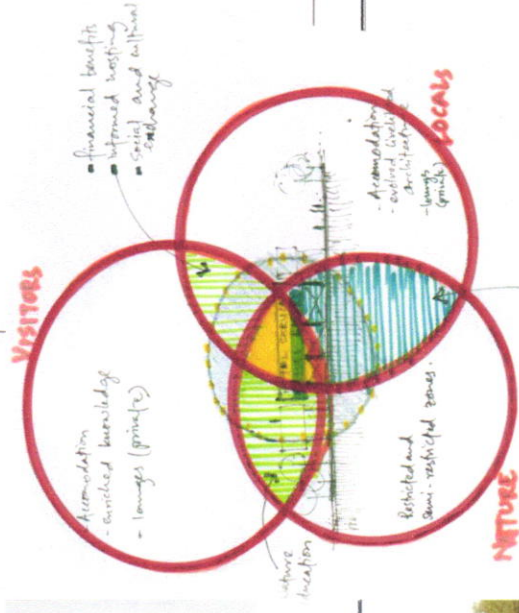
- Announced as Union with 9 wards, under Hatiya Thana





- _ Young nature enthusiasts and bird watchers
- _ Researchers, zoologists, botanists, geologists of all ages
- _ Foreign nature tourists
- _ Local family groups from neighbouring islands (day tour)
- _ Investors, entrepreneurs and politicians

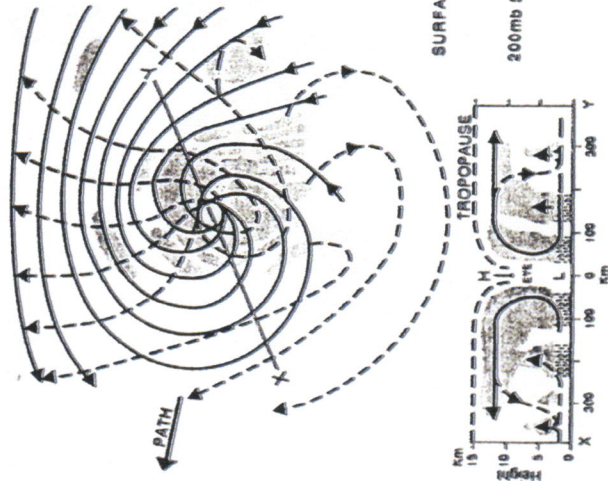
GROUPS OF 2 to 12 persons



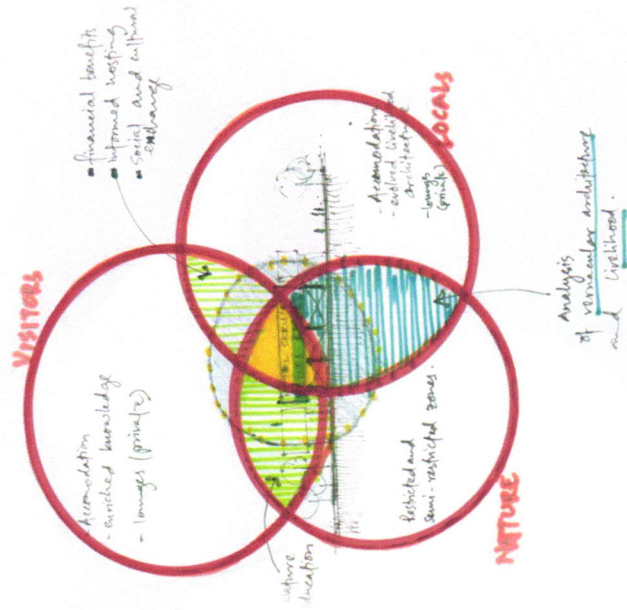
- _ Keora Forest working as a primary protection from cyclone and houses various ecosystems; also the main tourist attraction
- _ breeding, nesting and resting place for migratory birds
- _ foamy coastline with thriving ecosystems
- _ homestead protection by collection of various species of plant lives



- _ Fishermen, of a highly productive livelihood, working as farmers and woodsmen in season
- _ local homes and other man-made structures including the vessels with their own developed characteristics
- _ local hosts serving the tourists, generating revenue



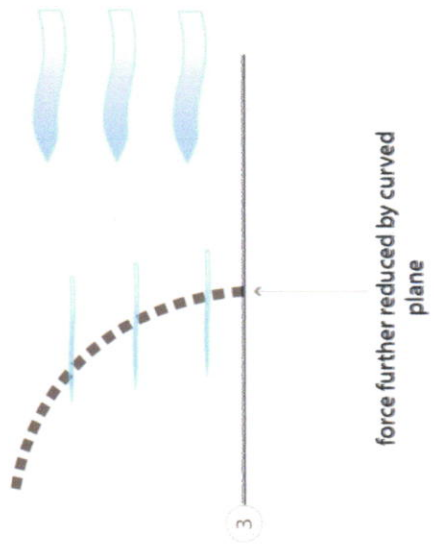
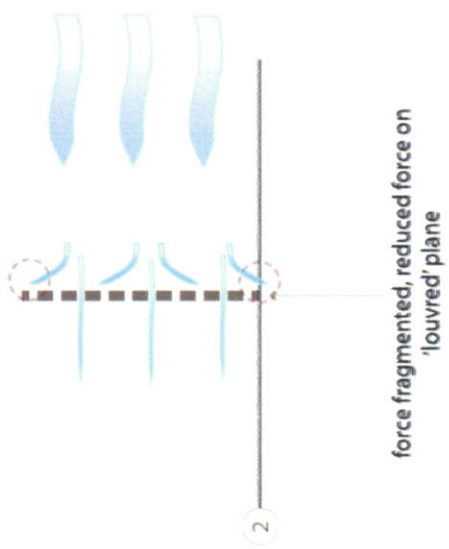
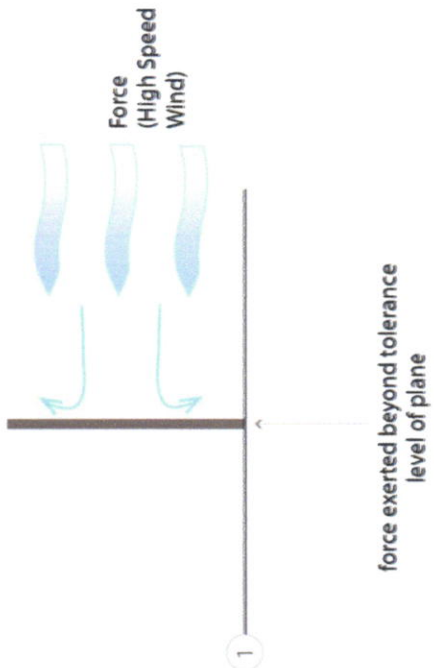
INTERACTING WITH CYCLONE



TROPICAL CYCLONE

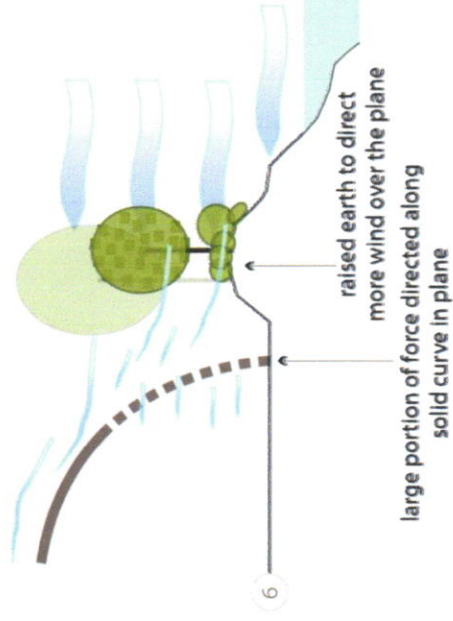
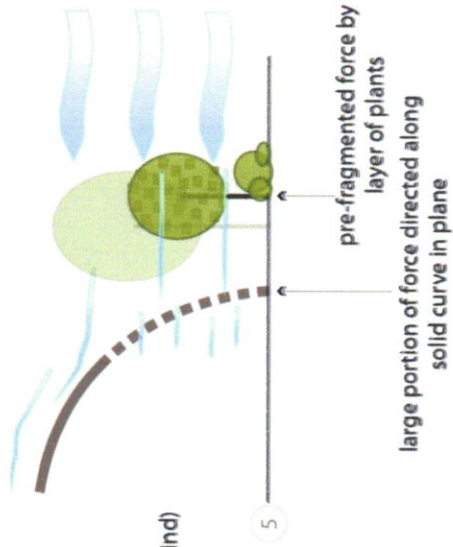
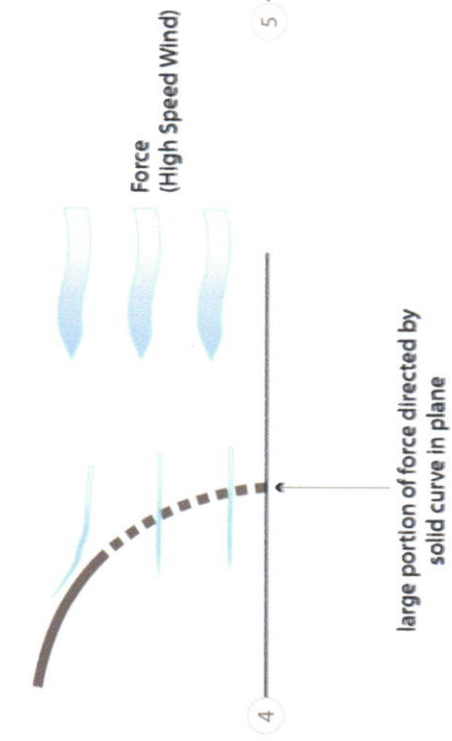
Concept

FRAGMENTATION OF FORCES



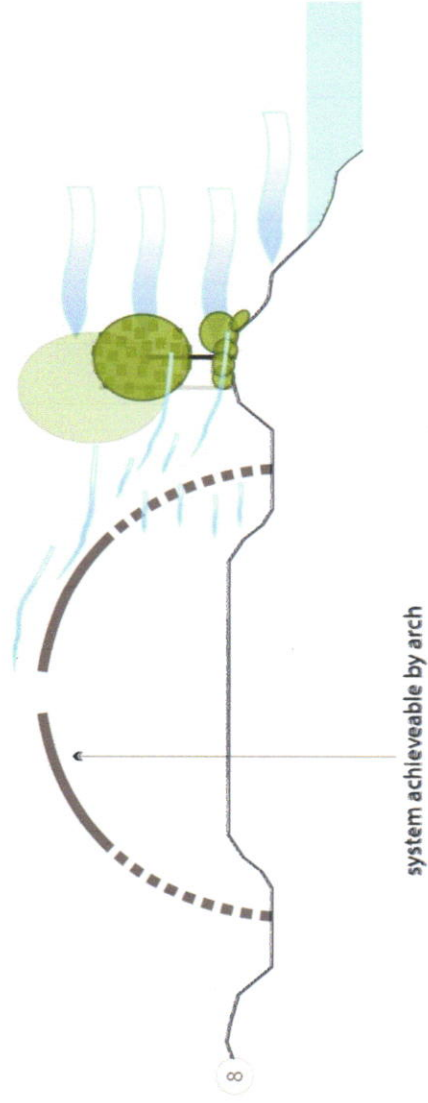
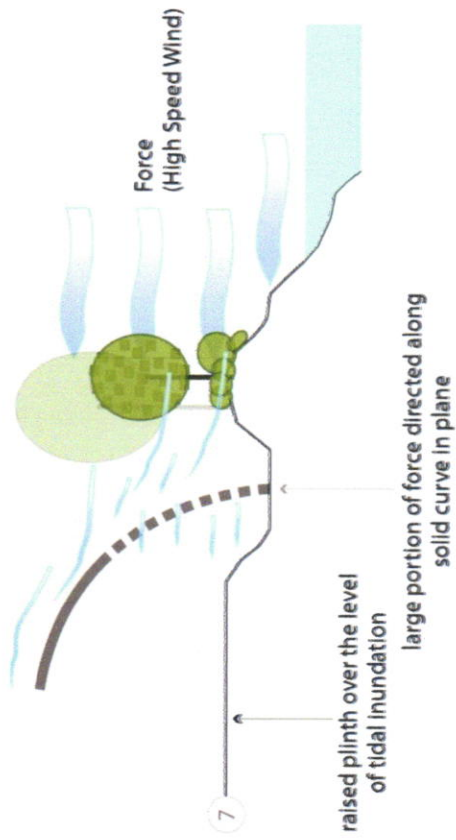
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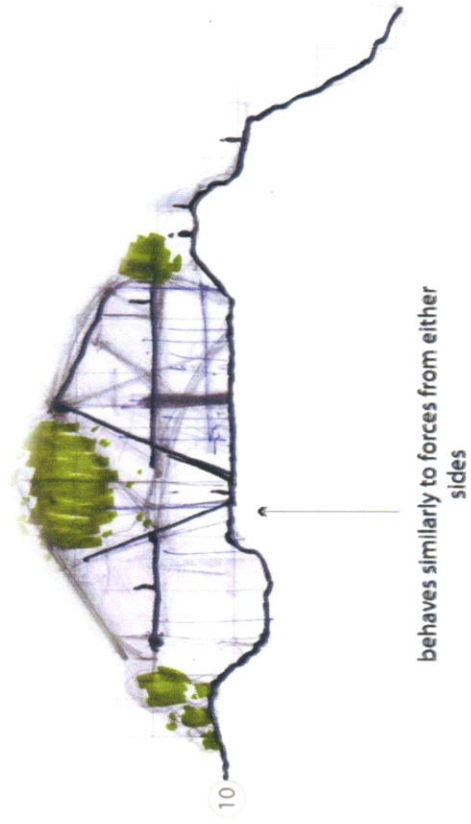
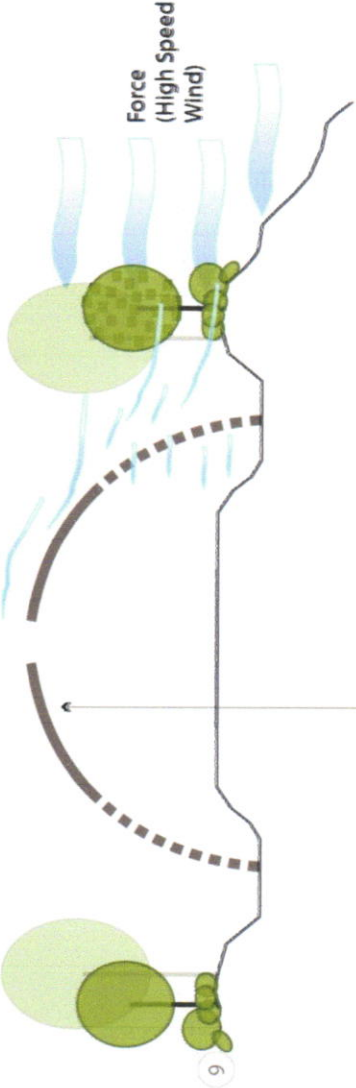
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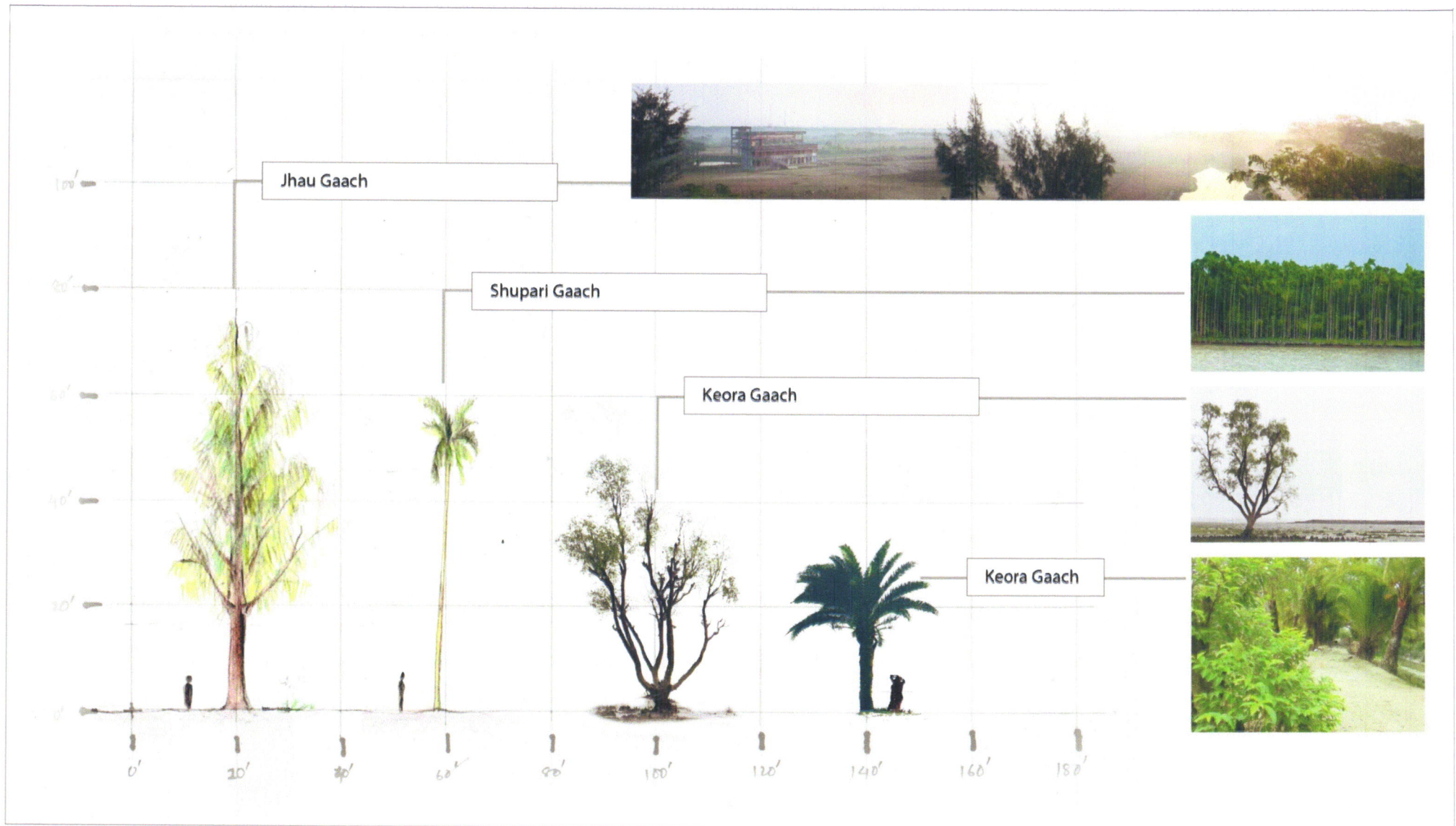
FRAGMENTATION OF FORCES



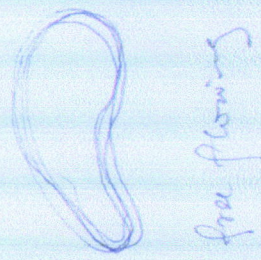
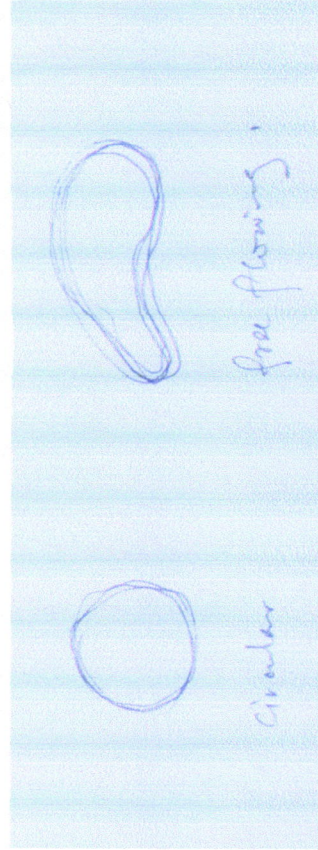
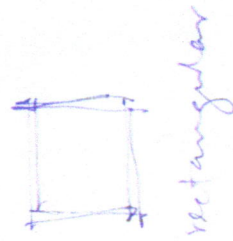
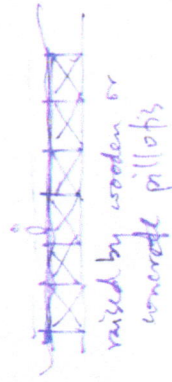
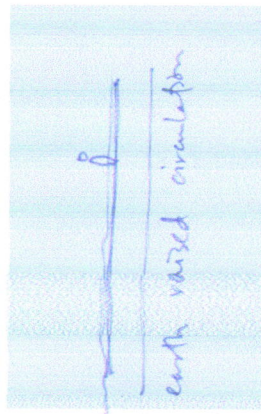
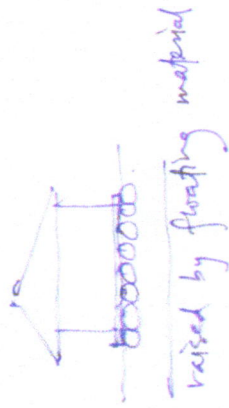
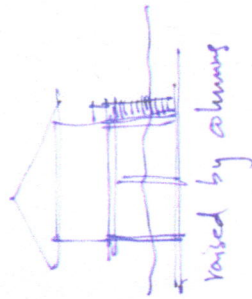
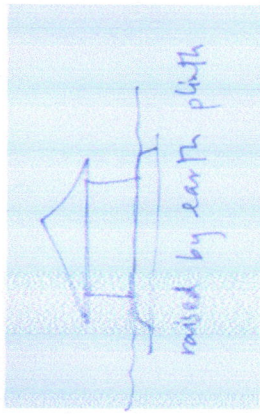
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FRAGMENTATION OF FORCES









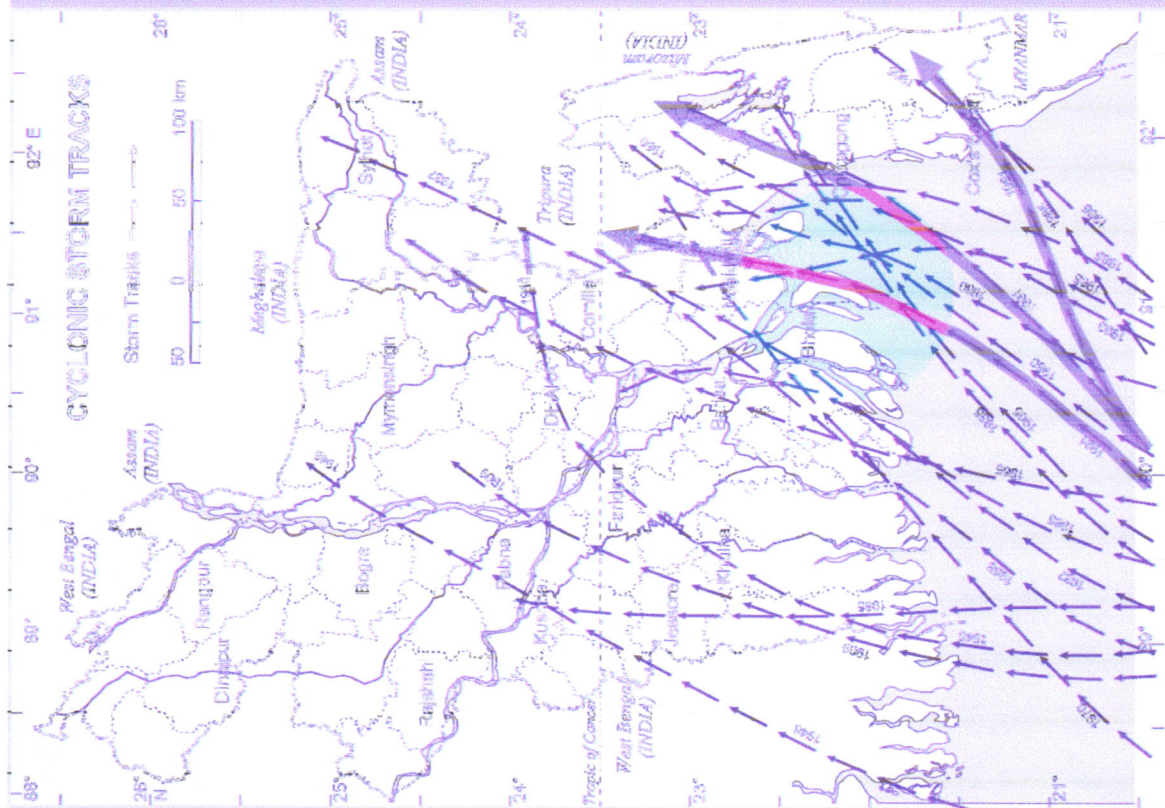
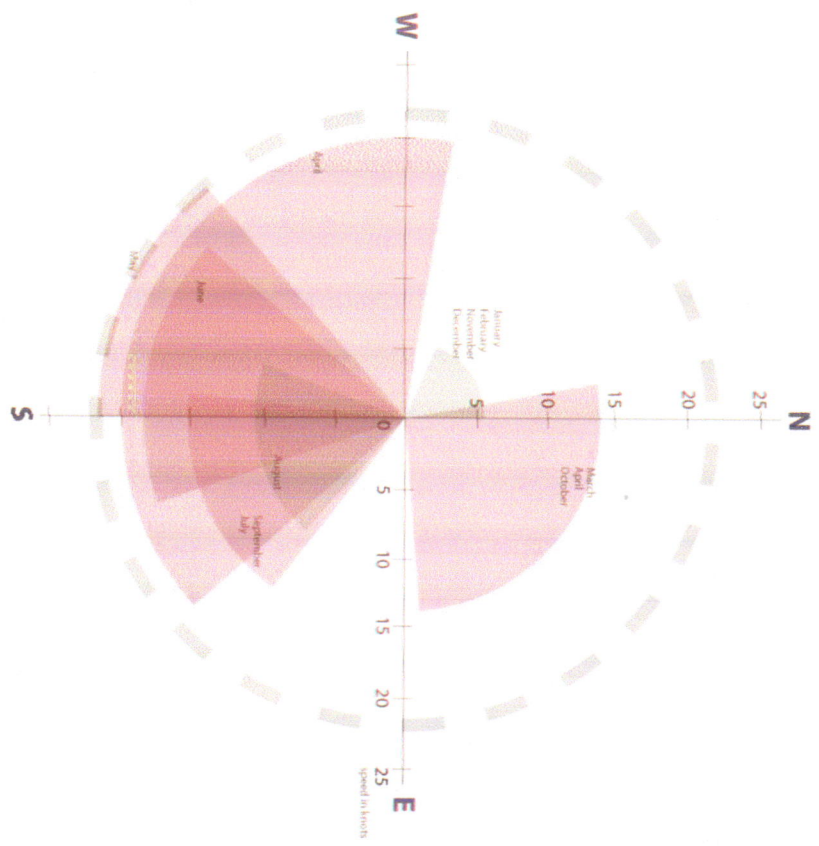
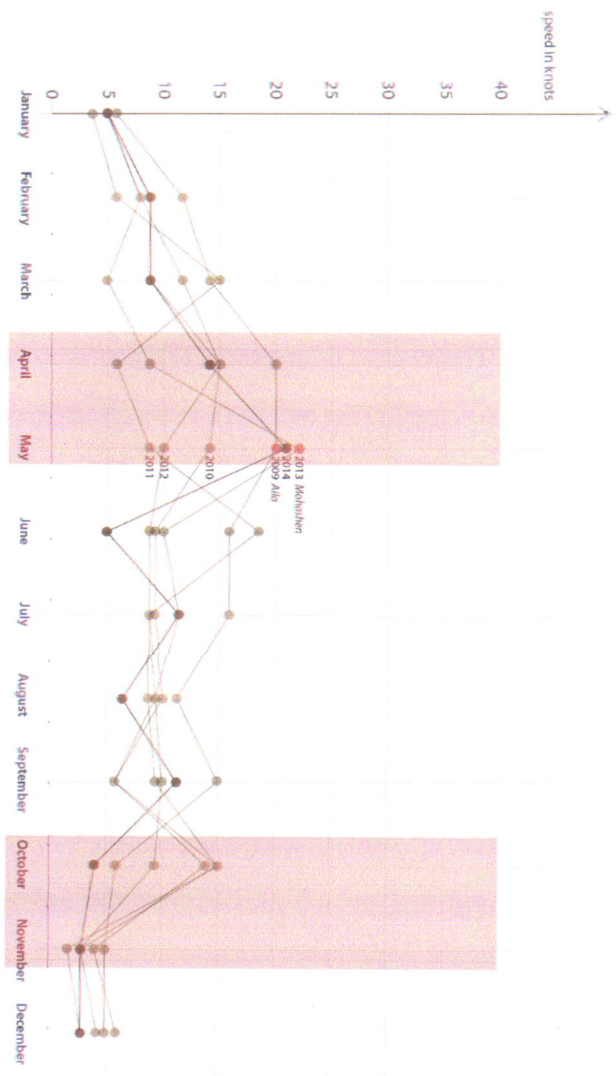


Figure Months of the year against maximum wind speed (data in three-hours intervals)



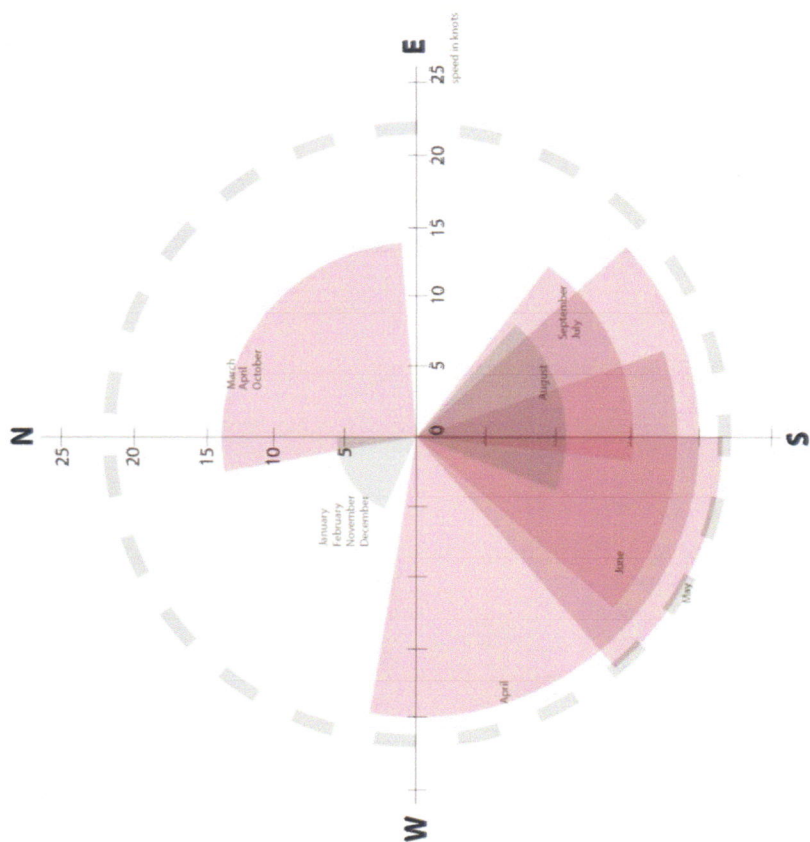
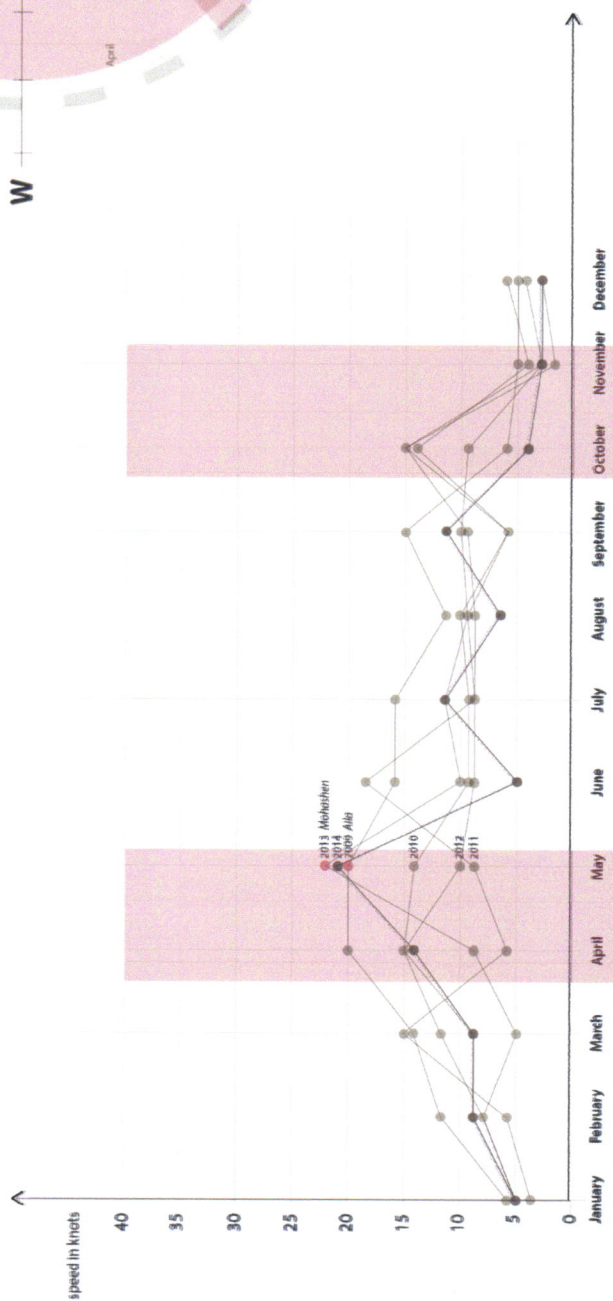
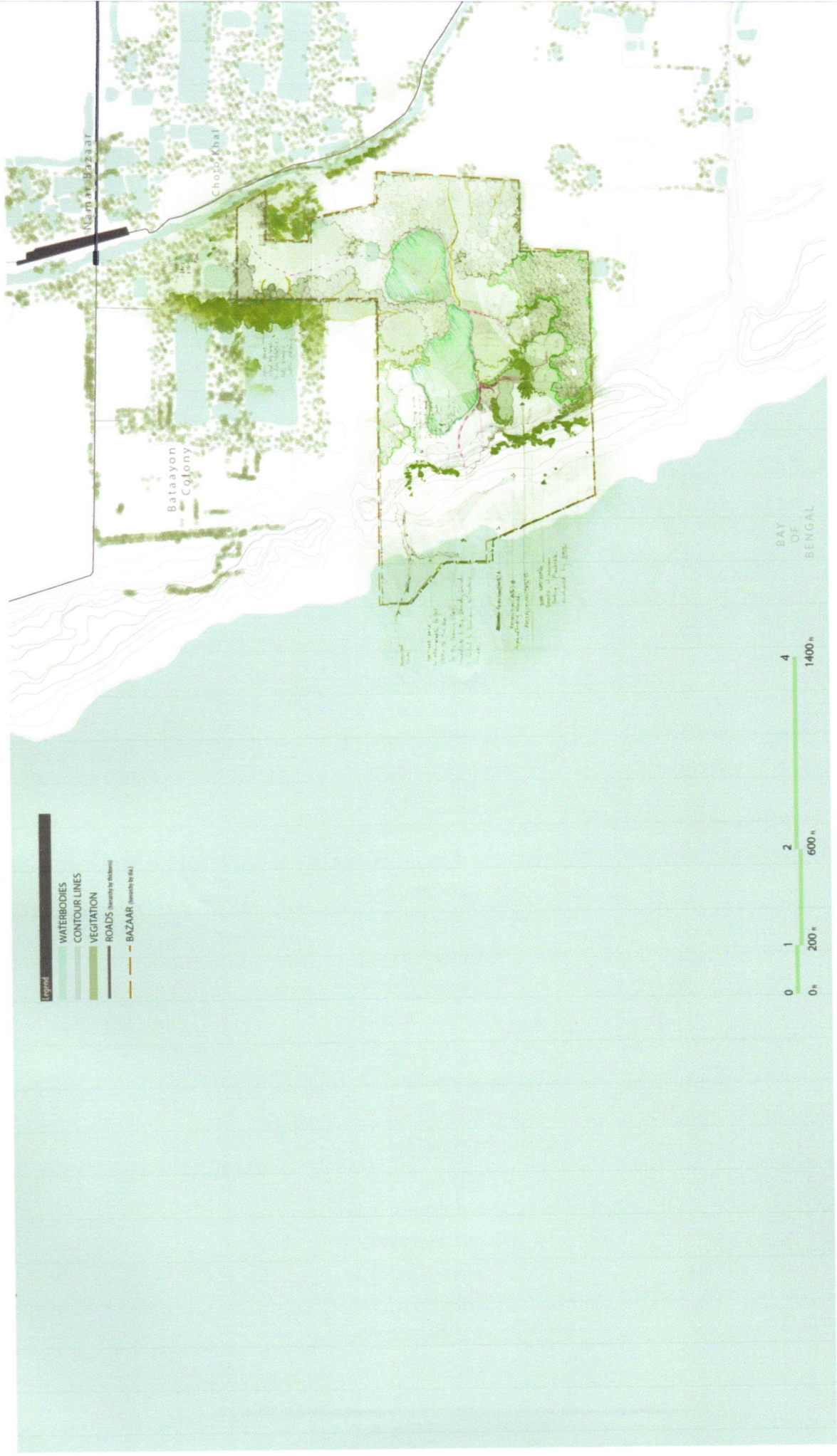
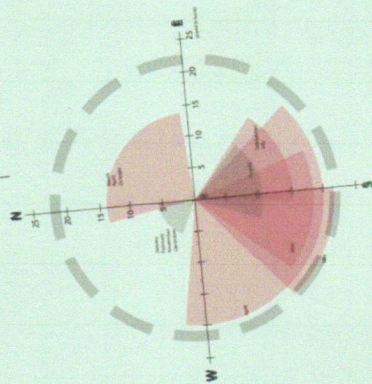
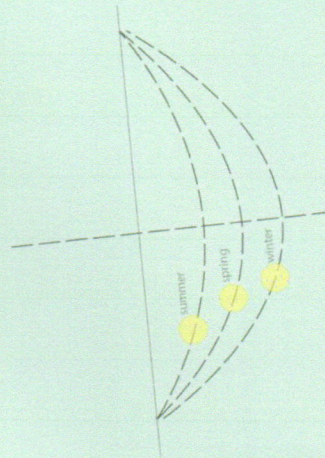
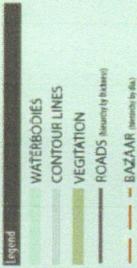


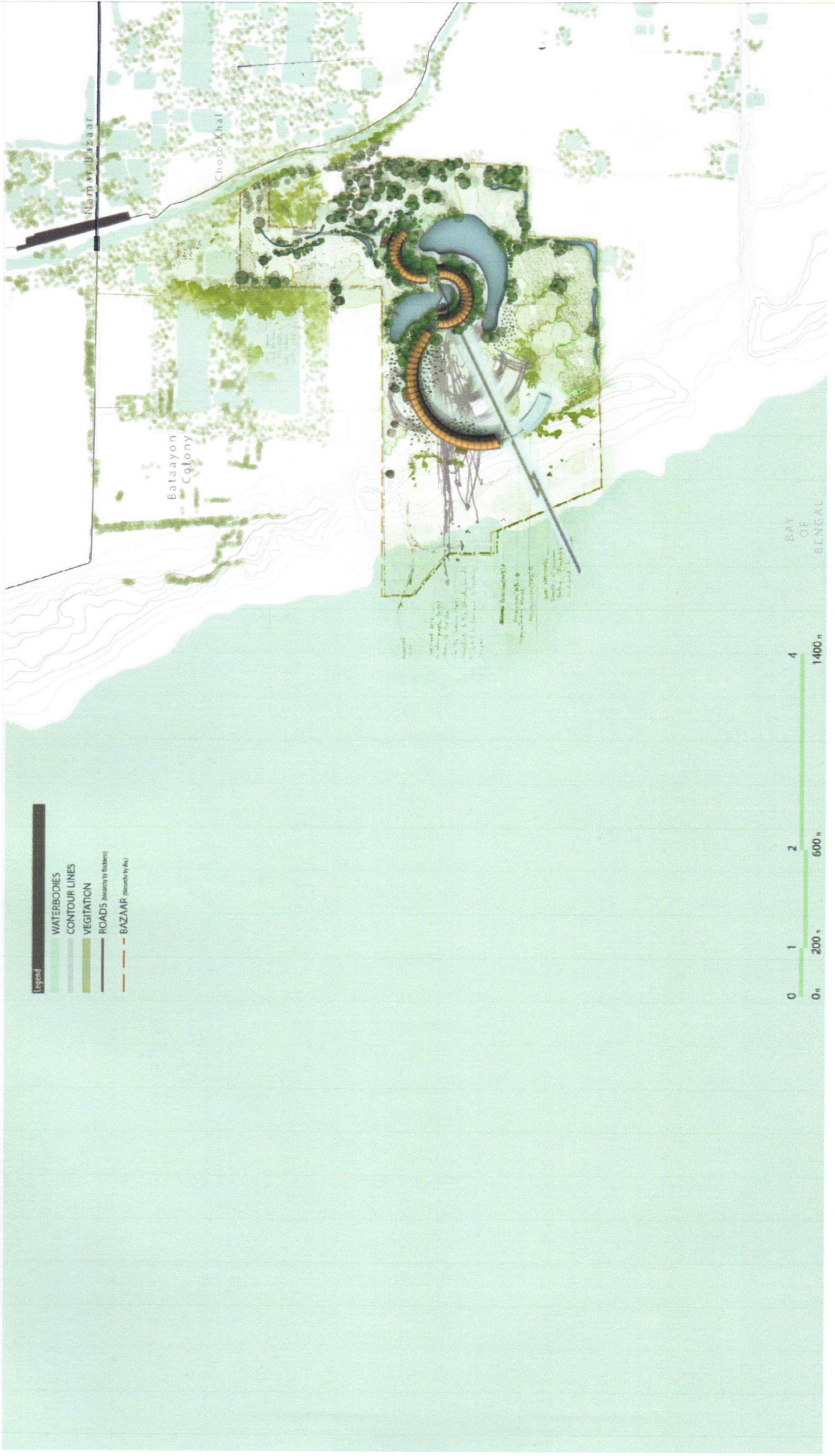
Figure Months of the year against maximum wind speed (data in three-hours intervals)



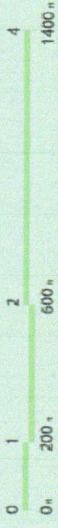


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- Legend
- WATERBODIES
 - CONTOUR LINES
 - VEGETATION
 - ROADS (Boundary to Bazaar)
 - BAZAR (Boundary to Bazaar)



BAY OF BENGAL





Chapter **3**

LITERATURE REVIEW

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The term 'ecotourism' was coined by a marketing agency that was promoting Costa Rica as a rainforest destination and since then it has been seen as a niche market by the World Tourism Organization, as it uses resources that are linked to the biodiversity and cultural pluralism of third world societies or countries, which have been forced into tourism as a core competency area by intergovernmental agencies for development.

The World Conservation Union (IUCN) defines ecotourism as: "...*environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature (and any accompanying cultural features - both past and present) that promotes conservation, has low negative visitor impact, and provides for beneficially active socio-economic involvement of local populations*" (IUCN, 1996).

The travel industry defines ecotourism as: "*purposeful travel that creates an understanding of cultural and natural history, while safeguarding the integrity of the ecosystem and producing economic benefits that encourage conservation . . . The long-term survival of this special type of travel is inextricably linked to the existence of the natural resources that support it*" (Bandy, 1996 quoting: Ryel and Grasse 1991:164).

The International Ecotourism Society defines ecotourism as: "*responsible travel to natural areas that conserves the environment and improves the welfare of local people*".

According to the World Tourism Organization (UNWTO) tourism that involves travelling to relatively undisturbed natural areas with the specified objective of studying, admiring and enjoying the scenery and its wild plants and animals, as well as any existing cultural aspects [both of the past and the present] found in these areas is defined as ecotourism. An optimum number of environment friendly visitor activities, which do not have any serious impact on the ecosystem and the local community and the positive involvement of the local community in maintaining the ecological balance are some of its key elements (UNWTO, 2002i).

With very little consensus between the industry, indigenous and local communities and other government and non-government organizations on the definition of ecotourism, it is being touted by the industry as the wonderful antidote to the development problems of hitherto untouched areas in India. Ecotourism is today the unique selling proposition of the tourism industry and is being used to bring more and more tourists to fragile regions like the forests and coasts. With nature and culture being the prime attraction it is only logical that

the Ministry for Tourism and Culture, state tourism departments and the tourism industry are selling India as an important ecotourism destination.

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Coastal ecotourism in India

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India is blessed with a 7516 km long coastline. Development of Tourism along the coastline of India can provide a major boost to the Indian economy at large and to the local communities in particular.

However, the sustainability of tourism activity is under the scanner of environmentalists as there are various physical, economic and cultural impacts of tourism that are negative in nature. The Present Study makes an attempt to find the feasibility of implementing Coastal Eco- tourism norms to the development of ecotourism in the coastal regions of India. The prospects of ecotourism development and the problems in implementing the same are considered in this study.

The coastal town of Veraval was selected for the study as this town is unique in its location. It has almost virgin beaches, is close to the Gir Reserved Forest (42 Kms) and has a religious significance for the Hindu community because of the ancient Somnath temple. Veraval is a Fishing Town. Besides it has some interesting flora and fauna which also is likely to make the town a favorite tourist destination for ecotourism.

Introduction

Ecotourism is defined as "responsible travel to natural areas that conserves the environment and improves the well-being of local people." (TIES, 1990). So ecotourism is nature based tourism and it is an effective instrument for enhancing method of conservation of environment, many income generating activity (through earning revenue, foreign exchange, hotel business, commodity selling, hotel boy service, guide, making hand-crafts etc.) of the local population, economic benefits of the host communities of the state or country and rejuvenation of the culture and tradition there by facilitating overall development. It also gives

us that ecotourism is a positive source of fascination for man and one of the causes of his psychological peace, mental solace and enjoyment and it rejuvenates man's spirit to explore nature again and again, revives his vitality and gives fillip to his energy after been churned out by the routine work of his monotonous life.

Study Area

Veraval is located at 20.9° N Latitude and 70.37° E Longitude. It has an average elevation of 0 meters (0 feet). (*Image 1 and 2*) Veraval was founded in 13th or 14th century by Rao Veravalji Vadher (Rathore) a Rajput. Veraval was once a fortified port town of the royal family of Junagadh. It was a part of the Kingdom of Junagadh till 1953 when Junagadh was merged with India. Before the rise of Surat, Veraval was the major seaport for pilgrims to Mecca... Its importance now is as a fishing port, one of the largest in India. Sea going dhows and fishing boats are still being built by the sea without the use of any instruments other than a tape-measure.

As of the 2001 India census, Veraval had a population of 141,250. Males constitute 51% of the population and females 49%. Veraval has an average literacy rate of 62%, higher than the national average of 59.5%: male literacy is 71%, and female literacy is 53%. In Veraval, 14% of the population is under 6 years of age. Veraval has a predominant Gujarati population. Amongst Gujaratis, the Kharwas and the Kolis form a sizable part of the local population. In addition there are also significant populations of Turks, Rajwadibhoi's, Lohanas, Maleks, Memons, Patnis and Raykas. There is also a sizable population of Malayalees and Sindhis. Gujarati and Hindi are the most common languages in the town.

Prospects of Ecotourism Development

Veraval enjoys a long coastline, lined with beaches. Beaches extend uninterrupted almost throughout the Veraval coast. Only a small portion of the beach has been commercialized and majority of the beach is still virgin. Veraval is also the closest town to the Gir Forest Reserve which is famous for its Asian Lion population. Gir has the highest population of Lions in Asia and is also famous as a tourism destination. Veraval also is religiously significant for the Somnath Temple which is believed to be the incarnation of Lord Shiva. There is annual fair during the Hindu calendar month of Magh for the days preceding MahaShivratri when the footfall of tourists is close to 200000 per day. Religious fairs in India have traditionally been noisy affairs. The latest technological developments in musical instruments and systems have further aggravated the condition. Fisheries have always been the main industries in the town and are dominated by the Kharwas (fisher folk). The fishing is

done mostly on traditional boats and trawlers. Veraval also has a large boat making industry. Veraval is home to a large number of fish processing factories in G.I.D.C which export prime quality seafood to USA, Japan, SE Asian, Gulf and EU Countries. The seafood-industry which was started through government initiative now is in its prime and many importers are attracted towards Veraval from around the globe. Regional research centers of CIFT and CMFRI situated at Veraval have done yeoman service in development of fisheries sector in Gujarat. Veraval also has been noted as a sighting location of the whale shark. This makes it very interesting for the tourists interested in Marine Biology.

Veraval has a hot semi-arid climate (Table 1), (Köppen climate classification *BSh*) with warm to hot temperatures throughout the year. Almost all precipitation falls during the summer monsoon season from June to September. Many of the tourists travelling from Europe and North America look for beaches which offer them warmth and sunshine that is in contrast to their home climates. Hence Veraval is climatically also an attractive destination for tourists coming from colder regions of the world.

Veraval being in Gujarat, has strict norms of Prohibition which make it a safer spot of tourism for families and single women. It also reduces the garbage generated in form of empty bottles and cans which is usually associated with the consumption of liquor.

Problems in Promoting Ecotourism

The major problems in promoting ecotourism are related to marketing and management. Ecotourism also involves creating source of livelihood for the local community in form of direct occupation and developing handicrafts. But many-a-times the tourists visiting the destination demand products that are not locally manufactured and hence there is leakage of currency. The tourists who visit solely for religious purposes tend to be very noisy in the celebrations and create noise pollution in the region. Also there is immense garbage generated during the period of fair. This affects the marine ecosystem and also adds to the pressure of waste management on the local governing body.

Suggestions for Promoting Ecotourism

The basic of Ecotourism addresses the garbage management. Coastal towns with a large number of fishing community have to manage the solid waste that is likely to be generated in the town. The fish population gets most affected by deposition of solid waste in the littoral

waters. This directly affects the amount of catch and its quality. This problem can be addressed by disallowing the use of polythene lower than 30 microns in the area completely.

The town of Veraval is close to the Forest Reserve of Gir which is a home to the largest population of the Asian Lion. Hence controlling noise pollution becomes imperative. Particularly during the festival of MahaShivratri in the month of Magh according to the Hindu calendar, which, also usually falls in the months of February or March. Strict norms of noise pollution control have to be implemented. Restrictions have to be put on the tourists/ pilgrims as regards to the kind of music that can be allowed or disallowed.

Ecotourism also refers to allowing environment friendly activities in the region. The virgin beaches of Veraval have a great potential in being harnessed for coastal tourism activities like scuba diving and underwater diving.

Veraval along with Mangrol on the coast of Gujarat have been found to be best suited for the sightings of the whale shark. This was stated in the report 'Gujarat Gentle Giant- Conservation of Whale shark'. The report was a part of the conservation program taken up by the Gujarat forest department and Wildlife Trust of India (WTI), along with an industrial house based at Mithapur. The report further states that whale shark tourism depends on good visibility and only deeper areas far from the shore show a good visibility of the giant fish. The report states that of the three sites surveyed as a part of the project - Veraval, Diu and Mangrol - it was revealed that Mangrol showed good visibility compared to Veraval. However, Veraval had a broad range of visibility. This can be used to the advantage of the development of Ecotourism in Veraval.

Conclusion

An ecologically significant location provides a boost to ecotourism. Veraval has virgin beaches, closeness to Gir Reserved Forest and is also religiously significant. Hence it has all the necessary factors which makes it an ideal destination for ecotourism development. Proper management and will from the Government can bring about the development of Veraval as a centre for ecotourism in India and can also prove an example for other coastal towns looking for development of ecotourism.

INTRODUCTION

1. Definition

Defining "Community-based Ecotourism" (CBE) has not proven to be an easy task, given the different concepts involved and the different players attempting to define it in terms that are beneficial to themselves. For the sake of clarity we decided to define "community-based" and "ecotourism" separately.

a) Community-based The idea behind the community-based component of this Environmental Strategy is to create potential for **the empowerment of the community, enhancing their involvement in decision making, but also simply making sure that the will and incentive to participate come from the community itself.** This empowerment arises specifically from the control over and the ability to manage productive resources in the interest of one's own family and community. It invokes a basic principle of control and accountability which maintains that "the control over an action should rest with the people who will bear its consequences."¹ This underlies the need for positive economical/social/environmental benefit for the community. "Community-based resource management takes as its point of departure, not the bureaucracy and its centrally-mandated development projects and programs, but rather the community itself: its needs, its capabilities, and ultimately its own control over both its resources and its destiny."

As is now obvious, the concept evolves around the concept of community. CB-CRM [Community-based coastal resource management] is people-centred, community-oriented and resource-based. It starts from **the basic premise that people have the innate capacity to understand and act on their own problems. It begins where the people are i.e. what the people already know, and build on this knowledge to develop further their knowledge and create a new consciousness.** It strives for more active people's participation in the planning, implementation and evaluation of resource management programs. It involves an iterative process where the community takes responsibility for the assessment and monitoring of environmental conditions and resources and the enforcement of agreements and laws. Since the community is involved in the formulation and implementation of management measures a higher degree of acceptability and compliance can be expected.

Community-based approaches allow each community to develop a management strategy which meets its own particular needs and conditions, enabling more flexibility. This approach also enhances recognition of and respect for cultural differences on the local and regional levels and among nations. It strives to make maximum use of indigenous knowledge and experiences in developing management strategies.

b) Ecotourism

Tourism represents a huge market in the global sphere. In 2002, the number of international tourist arrivals went up to as much as 702.6 millions and is projected to reach over 1.56 billion by 2020. This represents about US\$ 474.2 billions in receipts at an international scale.⁴ However, ecotourism represents a very small part of this market. "Ecotourism represents a small segment of nature-tourism. Nature-tourism is understood as travel to relatively undisturbed or uncontaminated natural areas and constitutes about 15% of all tourism (WWF, 1995)."⁵ This branch of tourism came up as an answer to the negative characteristics seen in tourism. Indeed, [tourism] was often condemned as "whorism" (Munt and Higinio 1993; Shoman 1994) [and] the industry was seen as elite-controlled and was thought to reinforce patterns of international inequality, exploitation, and dependency, and contribute to environmental degradation (Britton 1981; Perez 1973/74)

This encouraged the advent of Ecotourism defined by the International Ecotourism Society as "responsible travel to natural areas that conserves the environment and improves the welfare of local people". Ecotourism is said to have many advantages, among those, it is supposed to imply that:

[V]isitors respect and express interest in local natural history and culture and where a local tourist economy builds support for environmental conservation (Boo 1990; Brandon 1996; Lindbergh et al. 1996). Compared with mass or "old" tourism, ecotourism is touted as providing better sectoral linkages, reducing "leakages" of benefits out of the country, creating local employment, and fostering sustainable development.

c) Merging these concepts together

Figure 1 gives a general overview of the different concepts merged onto a single triangle. The 3 sides each represent one aspect of CBE, with community-based at the bottom, providing a base for this Environmental Strategy. This will be a recurrent theme throughout this work and underlies the importance of communities in processes meant to improve their quality of life and the quality of their environment. The environmental and the economic aspects are placed at the two corners at the top of the triangle: they must balance each other out for this strategy to work effectively.

Goals of Ecotourism

As was introduced above, the central idea of Ecotourism is to combine environmental protection and with the need to sustain the livelihood of the communities, thus tackling both social issues and environmental degradation. The effective implementation of Ecotourism is thought to have positive influences in all three areas mentioned above: economic, environmental and social.

a) Goals of CBE: Economic

"Ecotourism is described here as a special kind of market integration for rural communities. Encounters between hosts and guests in ecotourism are transactions that involve more than the exchange of money for goods or services; they also involve the trade of expectations and ideas about nature and culture."⁸ Also, when ecotourism is community-based, it essentially brings the market home, and this allows for different ways of participating in the market economy without necessarily or irreversibly disrupting normal livelihoods or social relations. For example, parks must look to another source of revenue that can rival the income from poaching. Indeed, sale of some animal species and their parts has long been a successful way of benefiting from wildlife. Demand has increased and this calls for new ways of protection. "Asian pharmacists pay cash — astronomic prices for rhino horn to grind into medicine. Yemeni men lay out more than \$1,000 for a carved rhino-horn dagger" (Knox 1990)."⁹

Tourism has serious potential to counteract this trend. An example comes from the gorilla in Rwanda:

The mountain gorilla project started with "fewer than 500 visitors.. [paying] a total of less than \$2000 to enter the park... [Ten years later,] an average of 5000 tourists now comes to the park to see gorillas annually... [V]isitors pay almost \$200 each..., thus [generating] nearly \$1,000,000 per year in direct park revenues. Furthermore, it is estimated that these visitors spend an additional \$600 each, or roughly \$3,000,000 annually in the country... Estimated revenues from all tourist-related sources total \$6-8 million per year, moving tourism ahead of all but coffee and tea exports as one of Rwanda's principal sources of foreign exchange" (Vedder and Weber 1990).

b) Goals of CBE: Environmental

By making the local economy more sustainable ecotourism also gives more support for environmental conservation and fosters sustainable development. New management

practices can also encourage the reduction of tourist pressure on critical areas. An example of this is given by ecotourism practices in Costa Rica, where:

[A]dmission fees [were raised] by a factor of 10 in 1994 (from \$1.5 to \$15 for foreign visitors). In consequence, visitor numbers plummeted by an average of 44% in the following year (Ratermann, 1997), but total revenues increased substantially. This way, it was possible to combine the maximization of economic benefits and reduce the pressure on ecosystems. Admission fees are a means to keep the number of visitors within an ecosystem's carrying capacity (McNeely et al., 1990), or to limit growth rates, so that planning, management and control measures are not outpaced by the development (Lindberg, 1991).¹¹

c) Goals of CBE: Social

From a social perspective, ecotourism is meant to enhance respect and interest in local natural history and culture, but also to encourage the sharing of expectations and ideas about nature and culture between tourists and locals. It should also increase local awareness and education and provide better linkages between actors in their local environment, such as local officials, NGOs and communities. As a whole, it relies on both economic and environmental goals to benefit the communities. It is clear that these benefits will allow this environmental strategy to be effective. "Look at the rhino from the Zambians' perspective: here's an animal walking around with thousands of dollars on its nose, an animal that doesn't do anybody any good anyway, except...as an attraction for rich tourists. Should Zambian families starve so tourists can take pictures of rhino"? (Knox 1990)." Poor rural communities must be assured an improved standard of living from ecotourism, if they are to support the preservation of wildlife, the natural habitat, and therefore the ecotourism industry.

But employment and education can also bring negative social impacts. "Tribal elders traditionally hold most of the knowledge and respect of the community. As the younger generation gain jobs and money from tourism, they may also gain prestige that rivals the elders. Their income from ecotourism is frequently many times what a villager makes from traditional means. This can lead to jealousy, and even murder, as in the case of a young Malagasy guide who was stoned to death by his peers (Jolly *pers. comm.*). Uncontrolled growth of tourism and the influx of western values can erode the local culture."

Another negative impact of ecotourism is the increased pressure on the region created by tourism in some areas, even when practised as ecotourism. This includes trash, increased use of natural resources, etc. "Higher standards of living (a benefit from ecotourism) have

attracted mainland Ecuadorians to the Galapagos, producing an uncontrolled growth of 12% a year in the local population. This creates several problems: resentment of "newcomers taking jobs...", shortages of basic foods at local shops...[and] raised prices" (Boo 1990). Additional negative social impacts include: begging by children; incompatibility of local versus foreign customs as female visitors dress inappropriately; social dualism; and growth of hostility towards tourists due to expatriation and overcrowding. Without proper planning and control of ecotourism, the attitudes of the local inhabitants towards tourism can go from "euphoria to apathy to annoyance to antagonism" (Long 1990).

CASE STUDY 1: BAGHMARA COMMUNITY FOREST, NEPAL

The Baghmara community forest, located in the Southern plains of Nepal is a good example of how the actions of national governments, when combined with support from non-profit organizations and the cooperation and participation of local peoples, can be effective in promoting conservation ideals while ensuring the well-being of the local community. The Baghmara forest plantation makes a strong case for the ability of a community to protect and enhance their natural resources when they benefit directly from them.

The Royal Chitwan National Park (RCNP) in Southeast Nepal is home to over 570 flowering plant species, 486 species of bird, 40 mammal species, 17 species of reptiles and 68 species of fish. This biodiversity, as well as the fact that it serves as a habitat for such endangered species such as Bengal tigers, wild elephants, striped hyenas, one-horned rhinos, and freshwater dolphin, led to its being declared a World Heritage Site by UNESCO in 1983 (Rijal, 1997). These attractions combine to make the RCNP a major international tourist destination, which brings in thousands of dollars each year.

However, this intensive tourism has expanded too rapidly and placed a considerable strain on the ecological integrity of the park (BCN). While the number of animals in the park has increased, their habitat has decreased due to erosion, encroachment, and the succession of grasslands by tall grass, shrubs, and tree species. As a result this has caused the wildlife to wander outside the park and into the surrounding farmlands in search of food thus creating conflicts between the park and the surrounding community. (Rijal, 1997) Furthermore, the 300,000+ Baghmara people living on the outskirts of the park rely heavily on fuelwood and fodder harvest from the surrounding forests. Rijal estimates that there is an annual demand for 219,905 tons of fodder and timber and that only a limited amount of this demand can be met by sources outside the community. As a result, local people have turned to the illegal collection of fuelwood from inside the park, which further threatens biodiversity. This conflict

was intensified by the fact that the local population had only a 2% employment rate from the tourist industry. The rest of the community received little or no direct benefit from the thriving tourism industry (Rijal, 1997) so they had little incentive to conserve and protect the environment of the park.

In order to tackle these issues, the Nepal Conservation Research and Training Center (NCTRC) and the King Mahendra Trust for Nature Conservation (KMTNC) launched a buffer zone plantation program in 1989. The objective of the program was to establish plantations in the buffer zones surrounding the park in order to meet the communities' fuelwood and fodder needs. A total of 81,000 saplings of fast growing indigenous tree species such as *Dalbergia sissoo* and *Acacia catechu* were planted over an area of 32 ha. The idea was that once the plantation was established, the community forest area could also be opened to ecotourism, thus demonstrating the potential economic value of conservation to the communities surrounding the park.

In its first year in operation, the project met with some issues concerning proper management of the park and suffered from a lack of attention from government authorities. However, there was enough support among the local people for the project that it was able to hold on. It was in 1993 when there was a real turning point in the Baghmara project. In this year, the Forest Act of 1993 was passed by the government establishing Forest User Groups (FUG's) as "independent organizations allowed to manage forest area for their own use and benefit" (Rijal, 1997). When the Baghmara FUG was established it consisted of a 19-member committee that works to prepare programs for the year. These programs are then presented to the general community only after unanimous approval by the committee. The Baghmara community group came up with its own operational plan to manage the community forest, and receives feedback in general meetings in which one person from each household in the area is required to attend. (Rijal, 1997) The KTMC and the Biodiversity Conservation Network (BCN) also led an effort to draft and pass legislation through the government of Nepal whereby 30 to 50 percent of the The project's real success lies in the fact that the community is now able to meet all of their fuel and fodder needs in a sustainable way that is completely in their control. Extending the forest into the buffer zone has also provided a habitat for wildlife. In 1997 there were 15 rhinos living within the community forest area, as well as 104 plant species, over 20 mammal species, and 125 avian species. (Khatri, 2001). The area has also served as a buffer to local farmers, in that crop raids have been reduced significantly since the planting of the forest. Due to increased tourism, more people are being employed as nature guides, or have opened hotels and guesthouses. Furthermore, the community members have been able to establish some

ecotourism micro enterprises such as the construction of a "machan," or wildlife-viewing tower, which generates about US \$8,000 per year. The community has also started some canoe and nature guide programs. By transferring some of the tourism into the buffer zones, pressure is taken off the RCNP without sacrificing revenue. Employment and revenue generated by tourism has heightened

revenue earned by tourism taxes would be shared with the local community. Village-based user groups decide the best way to use this extra income in a way that brings the greatest benefit to the community. The result of these actions was to give the Baghmara communities incentive to practice conservation through the generation of tourist revenue while also giving them control over a sustainable source of fuelwood and fodder. This served not only to eliminate the need to gather wood illegally, thus minimizing pressure on the park, but also to extend the wildlife habitat into the buffer zone.

The Forest User Group continued to expand the plantation area, fencing in 348 ha of degraded forest in 1994 to allow for natural regeneration, and subsequently planted small sections of this area. The buffer plantation quickly grew to 400 ha of mixed plantation, pure plantation, natural regeneration forest, grassland, and lakes (Rijal, 1997). A testament to the effectiveness of the project is that the plantation area was officially handed over by the government to the chairmen of the Baghmara community forest on June 15, 1995.

awareness in the community about the benefits of conservation. With the approximately US \$21,000/year that it comes in as tourist revenue the community has invested in many community development projects, as well as environmental projects. Since the area is prone to flooding, the committee has helped in the construction of a series of levees on the Budi Rapti River. They have also supported the development of three local schools, and a nature guide-training program for youths. The FUG has also used the money to hire forest guards and staff to assist with protection. They have also created another aquatic habitat through the construction of a mud-filled dam, as well as set aside several grassland areas to promote greater biodiversity (Rijal, 1997). Another project activity was to conduct a seven-day "green camp" for teaching environmental awareness to local youth (BCN).

As a result of their current needs being met by the community forest, as well as the release of some financial pressure on local people, they are able to think about the future of the forest as well. The FUG has plans to initiate a livestock insurance program that will introduce a new breed of livestock that will decrease the total number of animals and therefore reduce the fodder demand, while increasing production per animal. The insurance program will offer an incentive to shift from open grazing to stall-feeding. The committee is also considering the

establishment of an alternative energy program that will decrease fuelwood demand through the construction of a sustainable biogas plant.

As in any other project, there have been some challenges along the way to the establishment of the Baghmara community forest and ecotourism venture. Nonetheless, it serves as a successful example of how the interaction and cooperation of local communities, non-governmental organizations, and national governments can produce beneficial results. In this case, the proof is in the creation of sustainable economic incentives to conservation, the promotion of local guardianship of biodiversity and the resulting increases in wildlife, and wildlife habitat, and the improved livelihoods of 548 local households.

CASE STUDY 2: OLANGO BIRDS AND SEASCAPE TOUR, THE PHILIPPINES

Olango Island is located at the central region of the Philippines, 5 kilometers east of the major island of Mactan in Cebu. It has a total land area of just 10 square kilometers but is home to more than 20,000 people. The island has insufficient basic infrastructure like water and waste disposal and seventy-five percent of households depend on coastal resources for their livelihoods.

Olango is a low-lying limestone island famous for its wide fringing coral reefs, seagrass beds, mangroves, and most particularly its extensive intertidal mudflats, which provide habitat to migratory birds. Fully half of Olango is comprised of diverse coastal and marine habitats which has led to part of the island being designated as the Olango Island Wildlife Sanctuary, a national bird sanctuary. The southern portion of the island is a stopover for "about 60% of the 77 species of migratory birds that use the East Asian Migratory Flyway (CRMP, 2001). Thousands of birds migrate every year to and from Siberia, Northern China, and Japan to Australia and vice versa. An additional 42 species of birds are year round residents of the wetland area.

Like most coral reefs in the region, Olango have been under siege from destructive human practices like over fishing and blast/dynamite fishing, as a result, they are not nearly as productive as their natural potential would permit. Despite the fact that Olango's 40 square kilometers of reefs are in poor condition they still support a fish yield of 5 tons per square kilometer. However, fish yields are far below their potential production of 15-20 tons per square kilometer. For this reason, in 1992, a 920ha area was officially declared as the Olango Island Wildlife Sanctuary (OIWS). Thus, in July 1996, Olango (together with other surrounding islets) was chosen to be the experimental study site for the Coastal Resource Management Project (CRMP), a Philippines-wide project funded by the United States

Agency for International Development (USAID) in partnership with the Philippine Department of Environmental and Natural Resources (DENR). The Olango Birds and Seascape Tour was the resulting development venture and comprises one of the three components of the Coastal Resource Management Program (CRMP). It was first introduced commercially in January 1999 and is owned and managed by a fishing community organized by the Suba, Olango Ecotourism Cooperative (SOEC).

There are three elements that make this project unique. Olango islands coast, seas, reefs, and wildlife. The activities that can be done in the island are provided essentially by its indigenous natural resources. The Olango eco tour does not only provide environmental experiences that can be done in other eco tour projects but it combines education and learning with fun and enjoyment. Bird watching, coastal trek, canoe paddling, snorkeling, swimming and island hopping are just some of the activities that bring the tourists in touch with Nature. The community themselves monitor and ensure that all these activities are done with least impact on the environment. They brief and guide the tourist on appropriate behavior in that natural areas and communities they visit. Moreover, there is always a naturalist interpreter/expert on migratory birds who is around to give quality information to the guests.¹⁷

Secondly, the tour promotes and showcases local conservation of threatened coastal environments and wildlife.¹⁸ "The tour is a theater production. The guide has to be an educator, an entertainer, an advocate of environmental values, and an advocator of social ethics." This is how one of the staff differentiates the Olango eco tour from other island hopping packages. The tourists observe the involvement of the local community in the environment conservation likewise they are also enjoying the place. It intends to be an educational experience both in cultural exchange and environmental awareness.

The interaction with the community is very much integrated in the entire program that makes the experience one of a kind for the tourist. Aside from the usual activities that they go through, there is a section where community members give demonstrations in shell crafting, preparing local delicacies, and fishing. The final interactive activity is a discussion the efforts and challenges of the community-based programs. Each community leaders take turn to relate their efforts in trying to mobilize the community for common causes such as waste management system, abolishing illegal fishing methods and making tourism a sustainable livelihood. Because of the poverty in the community and the lack of alternative livelihood, the people are forced to resort to exploitation of natural resources in unsustainable ways. The organization shares their stories in their struggle to respond to this problem through the eco tour. From these presentations, the tourists learn that the valuable and beautiful resources

that they are enjoying are under severe threats from destructive human use as well as the challenges the community go through to manage their coastal resources. They realize that the fee they pay is itself the realization of a fishing community's effort to promote conservation by engaging in a non-extractive form of enterprise while promoting environmental understanding to visitors.

They levy a user fee of USD70.00 for non-Filipinos and USD50.00 for Filipinos.²⁰ This fee integrates one of the goals of ecotourism that the revenues at least partially finance the cost of protecting natural areas. It is considered expensive and discriminatory of budget pack packers and most Filipinos sightseeing their own country. However, the community justifies the price because the package is not only educating their guests about local environmental and conservation issues but also they are also financially supporting the community's efforts. In other cases, the locals also accept additional, voluntary contributions. The revenues and donations are used in either sole source of funds for the operation of a conservation area or program where there are fixed amount or partially contribute to the operational costs of the coral farm or to co-finance rehabilitation on nearby reefs or elsewhere in the country. The community justifies the tour fee as more than just island hopping but a complete and integrated social and cultural experience with lessons in sociology, and a testimony to the closeness of humans with nature.

Thirdly, the project showcases the potential, viability, and benefits of community participation in the ownership and operation of ecotourism ventures. The active community cooperation in the conservation and preservation of protected areas clearly show the effectiveness of ecotourism as a conservation tool. The Olango Tour contributed largely to the community's sense of empowerment. This is exemplified through the community's growing sense of pride in their achievements, renewed confidence in their ability to reach their goals, acquisition of technical skills, and manifestation of enthusiasm and creativeness in their activities. Most of the people in the community who are involved in the program have no previous experience in the tourism industry. Probably for the first time in their lives, the people feel they are able to contribute something noble for which they get affirmation from people outside their community. Moreover, the extra income and the new skills they acquire are incentives for the community to participate and involve themselves more in the project. These raised their ability to achieve their dreams of a better future for themselves and for their children.

Elements of Community-Based Ecotourism in Olango

There are five elements of community-based ecotourism that is highly evident in the Olango enterprise venture.

1) Community-Based Benefit and Participation

The project benefited 55 families in its introductory year. In 1999, 55% of gross revenues went directly to the community through salaries and profit. The tours generate additional employment in the community like accounting and meal planning which benefit the women in the community. There are also mini tour operators and local travel agents that materialize from the project. Overnight stay is not part of the program. This is in line with the environmental capability and carrying capacity of the island. This project is only a supplementary income to the families involved and there are still a lot of families in the island who are without the benefits from the program.

2) Contribution to environmental conservation and environmental education

The environmental education component is part and parcel of the ecotour. This increases the community's awareness and skills in learning their resources as well as teaching them to their guests. The locals themselves become ambassadors of the environment. The supplementary income gathered from the venture motivates the community to practice non-extractive and non-destructive means of fishing that protects the coral reefs and other habitats of fish and migratory birds.

3) Market competitiveness and accessibility

A successful ecotourism venture relies also on its accessibility to the market. The Olango tour just on its introductory year of operation had 33 tour runs with 357 visitors. 31% of them were foreign guests from 17 countries and 69% were domestic travelers from 11 provinces.²³ More than 30 international organizations have visited the project. They include PATA, the Ecotourism Society, The Nature Conservancy, Conservation International, Japan International Cooperation, Embassy of Switzerland, etc. This has also been featured in a number of media establishments like leading national dailies and magazines and tv programs. It was cited as one of 10 "Highly Commended Honorees" of the Conservation International's 2000 Excellence in Ecotourism Awards. In 2001, the British Airways Tourism for Tomorrow Awards cited the Olango Birds and Seascape Tour as "Best Environmental Experience" Awardee.

4) Promotion of local culture

The showcases of the ecotour and the active participation of the community promotes the local culture of the area. Tourists get a complete cultural experience from watching the locals prepare their delicacies, present their talents in shell crafts, and watch the local dances and listen to local music.

5) Financial Viability

Part of the Coastal Resource Management Plan (CRMP) is focused gathering information and assessing the value of coastal resources. Research shows that despite the degraded condition of Olango's reefs, it is still worth between US\$38,300 – US\$63,400.00

per square kilometers annually or US\$1.53 million to US\$2.54million for all of Olango's reef area, well within ranges previously calculated for Philippine reefs. The costs to manage coastal resources in Olango are US\$70,000.00 per year. These include resource assessments and monitoring, community organization, education, training, law enforcement, information dissemination, and planning activities. The benefits though are still more substantial. With an effective management program, it is expected that the annual net revenues of Olango Island's natural resources could increase by 60 percent.

The Olango Birds and Seascape Tour's growth potential will proportionately increase with the good management of its resources. The beauty and richness of the place will sustain itself to be marketable for tourists. Coupled with community's efforts and enthusiasm, the tour is an environmental strategy that is financial viable and ecologically sustainable.

CASE STUDY 3: ESELENKEI CONSERVATION AREA

History: The Creation of Eselenkei Conservation Area

The Selengei Group Ranch (SGR), located in the Kajiado District of Kenya near the Amboseli National Park, is a community of approximately 3,000 people. The SGR owns the land on which the Eselenkei Conservation Area exists. During the wet season, the eastern area of the land is used extensively by wildebeests, zebras, hyenas, leopards, and lions however the area is best known for its abundant and diverse bird populations. Before the Eselenkei Conservation Area was created, The Cheffings Company (a British tourism outfit) with the consent of the community had been bringing ornithologists and bird hunters into the area since 1920. In 1988 a 20-acre campsite was built to accommodate the visitors, and fees were charged for hunting and camping. Portions of these fees (approximately US\$ 925) went to the Selengei Group Ranch (SGR) community as compensation for the use of their land. This money was used to build schools and sponsor primary and secondary students for further education.

In 1995 a former Amboseli game warden, which had been involved in the bird shooting tourism activities, saw an opportunity for substantial profits through the creation of an ecotourism site for wildlife and photographic safaris. When he approached the local Maasai chief about setting aside some of the dry season grazing area for a sanctuary, he was met with hostility, as the community considered him to be the man that "sold out Amboseli." They had no interest in his proposal, even though according to the game warden, "all they have to do is to set aside the land for wildlife, and sit and watch the money roll in." The game warden contacted Tropical Places, Ltd. (TPL), a British tour operator, about the venture. TPL agreed

there was high potential, and was brought in to discuss plans for an ecotourism venture with the SGR. The initial plan was to have a 7,000 ha area (approximately 17,200 acres) leased to TPL and kept free of livestock, huts, and local hunting. A 60-bed tourist lodge, expected to be filled at 60% occupancy rate, was to be built in this reserve area. The initial cost of the project was estimated to be \$2 million, which would cover the cost to construct the lodge and other related infrastructure. The potential profits however were estimated to be in the range of \$1,650,000 per year, this would easily justify the initial capital expenditure. Of that money, the SGR could potentially expect to receive \$96,000 per year after costs. However, TPL said they could only guarantee about \$4,000 per year (plus an annual rental fee of \$4,445 for use of the land) since the \$96,000 was based on a prediction of a 60% occupancy rate, which could not be guaranteed. To put these figures in perspective, the average income of an individual in the SGR is \$10,000, based on a herd size of 50 cattle (the main source of livelihood for the community). Therefore \$8,000, once distributed amongst the community, would not make a significant impact to an individual member's income. As a result there has, from the beginning, been a lack of incentive for the community to view this project as beneficial and wish to see it succeed.

Below is the final agreement signed by the community and Porini Ecotourism, Ltd., a daughter company of TPL, which would be responsible for the management of the tourism venture.

- 7,000 ha would be leased to Porini to be used for the wildlife conservation area for a period of 15 years
- 16.2 ha within the leased 7,000 ha would be allowed for a lodge
- US\$ 4,445 rental fee would be paid to the SGR for use of the land each year
- Grazing would be allowed in the area during the dry season except where facilities were constructed
- A 5 km zone would be created around Eselenkei where there would be no wildlife-related tourism activities.
- Community members were to be employed by the company both for construction and running the camp
- The Eselenkei Conservation Area would be open to tourists one year after the signing of the agreement

A Porini liaison officer was employed by Porini to facilitate communication between Porini and the community. However, the liaison was mainly seen as working for Porini and assisting the Porini project manager. This liaison was a member of the SGR committee, the governing body for the group ranch. The SGR then created a community liaison post, for which Porini also paid for, angering the Porini liaison officer. Tensions mounted within the community as members began to choose sides between the two liaisons, and also between the community and the Porini manager, whom they felt disrespected their community (he had allegedly made negative comments about their pastoralist livelihood). As there was no non-governmental organization (NGO) to intervene, and the central government was not very involved, the problems continued to persist. Eventually the SGR chased the manager out, burned some of the temporary huts that had been constructed, and tore down the Conservation Area sign that had been created in protest. The project was halted for 4 months.

Clan politics mixed with national politics and quarrel continued within the community as it became divided into two factions, the Porini liaison camp and the anti-Porini liaison camp. A member of the local government finally stepped in to mediate the situation, and a new agreement was drafted to appease the community. In the agreement the number of hectares was decreased to 5,000 and a Conservation Area Committee was created to manage the distribution and expenditure of fees from Porini. Unfortunately, the community issues had not been resolved in this new agreement, and eventually it was decided that revenues would be split between the Conservation Area Committee and the Group Ranch Committee.

The tourist camp was completed in 2001 with only 8 beds available as opposed to the 60-bed lodge that was planned. This resulted in significantly decreased revenue due to the reduction in bed space and visitor fees. The actual monetary compensation to the community consisted of approximately US\$ 8 per person per year, as opposed to the US\$ 29 per person per year originally projected by TPL. Additionally, the community has lost the benefits generated from the fairly prosperous bird hunting and tourism, faced reduced grazing land for their cattle, resulting in a decrease in their cattle population and thus income, and there is more game within the area, resulting in livestock loss, disease, competition for water and grazing, and destruction of crops. Not in the least, the community, which once was known as "one of the most harmonious...in Maasailand" is now splintered and there is a lack of trust among members.

The tourist operators, however, are making substantial profits – US\$ 156,540 per year is made for Porini, after the deduction of the Selengei payments, costs, and labour.

ISSUES:

From the beginning this was not a true CBNRM strategy – the key players in any CBNRM strategy consist of the community impacted, NGOs, and the government, be it central or local. The NGOs and government can provide expertise and act as a means to ensure clear communication and diffuse any tense situations that hinder the project. SNV Netherlands Development Organization, an NGO that has done substantial work in Kenya, could have been an invaluable source for the project, having had previous experience in CBNRM and in working with the Maasai and Kenyans in general. SNV Netherlands also could have acted as the impartial party in resolving the problems within and between the community and Porini.

The Kenyan Wildlife Service (KWS) played a minimal role in the process by bringing several members of the SGR to other group ranch sites where ecotourism has been successful.

The minimized role of the KWS is a result from the national policy that directs just when the central government can become involved in the management of natural resources with communities. With an increased role, the government can provide some institutional capacity to assist the community in developing the necessary skills for management of their natural resources as well as political and financial management.

The Selengei community had to be convinced from the beginning to accept this project, and there were hostile feelings from the start towards the proponents of the project (i.e. the Amboseli game warden). Additionally, misaligned interests resulted in poor planning, miscommunication, and mistrust. TPL and Porini were more concerned with getting tourists to the area and making a profit – in fact, from the beginning the attitude was the Maasai didn't have to do anything but watch the money come in. TPL and Porini had immediately delegated a passive role to the community and did not give the SGR members any reason or incentive to see the venture succeeded.

The profits relegated to the community, even at the initial projected levels, would not have made a substantial increase in the average livelihood, and the community had been managing their lands and wildlife before without any problems. In fact, they were making money off of the wildlife with their bird hunting and viewing arrangement with The Cheffings Company, and keeping their grazing and land management rights at the same time. The deal offered by Porini effectively took away their management rights and offered no equivalent compensation for that loss.

Since the community did not have any decision-making authority in the project, they ended up competing against each other for the few jobs that Porini provided through construction and as tour guides. The community did not have the opportunity to make

keeping what is mine and not sharing, and preferential treatment as far as who receives sure that all members were involved and had a stake in the project. The resulting social tensions aggravated the substandard financial situation – splitting the revenues between the two organizations makes for very inefficient use of funds and there is a mentality of how much.

The social and environmental costs have, so far, outweighed the benefits, which have been few and far between. As to whether this case meets the environmental goals of CBNRM, this venture is sure to fail. Despite the lower numbers of tourists and thus reduced impact on the environment, the lack of social and political harmony will have a significant, and detrimental, impact on resource management. Community in-fighting continues and thus poor decisions result from compromises made that address politics, as opposed to actual environmental issues. Additionally, the increase in wildlife in such a limited area does not bode well for either wildlife populations or the landscape; there has been an increase in human-wildlife conflict, as leopards kill livestock and crops are grazed and destroyed by the wildlife, and there has also been increased competition among the people, wildlife, and livestock for precious watering holes and food.

Bassi, Dr. Marco. "Enhancing Equity in the Relationship between protected areas and local communities in the context of global change: Horn of Africa and Kenya." January 2003. IUCN/CEESP/WCPA.

CONCLUSION

Ecotourism is an exciting evolution in the business of nature tourism because it addresses social and economic questions in addition to environmental issues. Community Based Ecotourism is people centred, community orientated, and resources based. By promoting tourism through the protection of the environment, biodiversity is preserved, jobs are created, environmental education within the communities is promoted, and an understanding of local peoples and cultures is fostered among the tourists who visit these communities.

As illustrated in the three case studies, involvement of the community is key to the success of any CBE venture. During the planning and development stage of the project, NGO's, environmental groups, and government agencies need to work closely with the local people involved. There must be specific and tangible benefits to the communities impacted, these can take the form of jobs, education, cultural preservation, and environmental protection. Ecotourism can help to preserve cultures by halting the outflow of people and resources from the community while simultaneously protecting and enhancing the environment.

As ecotourism continues to expand there is an increased need for some form of industry standards or certification. A recent study by Protecting Paradise compared in detail nine certification programs, including ones in Australia, Costa Rica, Canada, Guatemala, The Galapagos Islands, New Zealand, and Europe. The study concluded that two of these ecotourism certification programs, NEAP (Nature and Ecotourism Accreditation Program) in Australia and CST (Certification for Sustainable Tourism) in Costa Rica, offered the strongest models. The study also discussed an initiative, spearheaded by the Rainforest Alliance, to study the feasibility of creating an international accreditation system to license agencies that audit tourism businesses.

Ecotourism and nature tourism certification provide industry, protected area managers, local communities and travelers with an assurance that a certified product is backed by a commitment to best practice ecological sustainability, natural area management and the quality ecotourism experiences. The Nature and Ecotourism Accreditation Program identifies the following to be key benefits of providing industry certification:

- Criteria to assist operators in the planning and development of their nature tourism and/or ecotourism product
- A guide to assist operators in implementing the principles of ecologically sustainable development
- An opportunity for operators to continually improve performance to a standard recognized as best practice
- A recognized logo for operators to use in their marketing material
- A recognized means for protected area managers and travellers to identify genuine nature tourism and ecotourism operators
- A tool for protected area managers to encourage improved practices that lead to less environmental impact
- A tool to help local communities determine a mix of tourism activities that maximizes benefits and minimizes negative impacts
- An essential educational and information tool.

NEAP further advocates continued assessment of ecotour operations and calls for the review and updating of certification criteria every three years to reflect emerging best management practices. This assures credibility of the industry and confidence among

travellers. Having a certification system will help to cut down on fraud by “ecotour” companies that make exaggerated claims concerning benefits to communities and the environment? This will help ensure that the people who benefit the most from ecotourism ventures are the communities most heavily impacted by its activities.

GUEST PROFILE TYPES

TYPE A

University students and youngsters (20-30 years) from the cities, who seek adventure, seem to travel to Nijhum dwip (in groups of 8 to 12). According to locals, an average of 10 such groups visit every weekend during winter. They usually travel as backpackers with expensive gadgets like camera, tripods etc. Mostly in a rush to get back to the city, they stay at the site for 2/3 nights.

Sample 1 - 10 students from AIUB (male) __ 2 nights

Sample 2 - 6 students from Chittagong University (male) __ 2 nights

TYPE B

The second group of visitors, who come in large numbers, throughout the year, are researchers from various organizations. Their purpose of visit, generally, is to study the area through observation and surveys. Traveling in a group of 3 to 6 people (both male and female), their stay varies from 1 to 5 weeks. Some individuals visit repeatedly.

The other part of this group consists of foreign and local individuals and couples with the hope to enjoy the nature and tranquillity for a week or two.

Sample 1 – 4 people (age 35+) visiting third time in this year __ 12 days

Sample 2 - Foreign couple (age 50+) from Switzerland __ 3 nights

TYPE C

The third group comprises of visitors, staying over for 1 or 2 nights mainly for business or political purpose. This group also includes visitors from nearby islands and towns who do not stay overnight. They travel in family groups of 4 to 8 members.

Case study 1

Eco-resort in Rural India

Georgy Rajan

A Research Project submitted in partial fulfilment of the requirements for the degree of Master of Architecture Professional, Unitec Institute of Technology, 2011

This research project aims to develop a design for an eco-resort in rural Kerala, India. The research is based upon the theoretical influence of Hitesh Mehta and his exploration of the principles of eco-tourism. An important element of this project is gaining a theoretical understanding of the forms of local architecture and their methods of construction. The project aims to deal with the site, climate and the culture in a detailed way.

The site chosen for the project is located on an iconic island in the heart of the Vembanad Lake in Kerala. The site is currently a working plantation and the project is proposed as a way to promote conservation of the island.

Site

Kumarakom Lakes Resort is situated on an 8.2 acre, west-facing waterfront property. It sits on the banks of the Vembanad Lake in Kottayam District. There are internal waterways which run through the site, creating small artificial islands. The site is covered with buffalo grass and is extensively landscaped.

Proposed Programme

Main building

- The Interpretation centre
- Library/ Gallery
- Restaurant
- Kitchen – Storage
- Resort lobby and services
- Performance Hall

Villas

- 3 x one bedroom villas
- 2 x two bedroom villas
- 3 x three bedroom villas

Access to Waterways

The site must be situated in an area with easy access to the waterways. This is essential as the guests are taken around the plantation via the waterways and the resort's supplies are also brought via this same way.

Location to Entrance

The resort must be located close to the plantation's entrance. This will ensure minimal travel times between the resort and the plantation. The guests need to be located close to the main entrance as most of their local tours will begin from here.

Non-interference with Plantation

The resort and the plantation must run as separate entities. The interaction between the two programmes is important as the eco-resort is based on the idea of interpretive education of the resort's guests. The two need to work as single entities on a day to day basis but they will have interlinking programmes. The resort's guests will interact with the plantation and its workers on a daily basis.

Main Building

Ease of Access

Access into the main building is important for not just the guests but also the staff. The guests need to be able to use the different resort facilities available without needing to walk around the site.

Relation to Vernacular

The relation to the local vernacular architecture is important. An eco-resort must always consider traditional and local building methods and style for the construction of its buildings.

Connection to Site

The building spaces must allow its occupants to experience as much of the site as possible. The spaces should be arranged according to the programme and require

Central Position

The resort's main facilities should always be located in a central position to allow for easy access to the various spaces.

Villas

Privacy is an important factor in the design of the resort. The guests must be allowed to create their own private spaces within and around their villas.

Relation to Vernacular

The vernacular architecture is used as an example of how the materials and construction techniques can be used to deal with the site conditions.

Outlook

The design should capitalize on the many vistas available on site. The design should focus on creating viewpoints for its guests.

Flexibility of Spaces

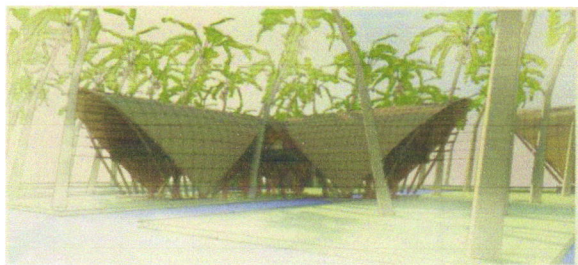
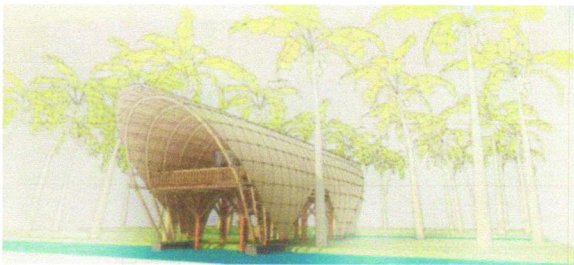
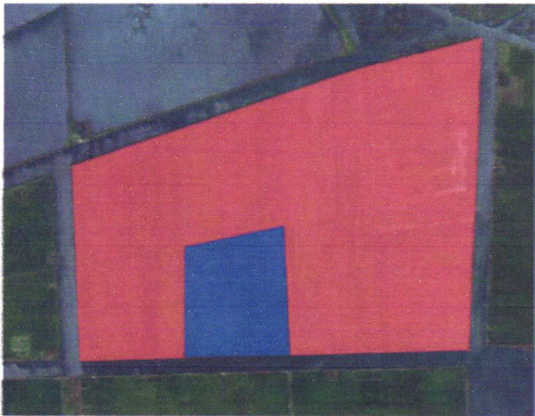
The spaces designed must be able to change according to the occupant's needs.

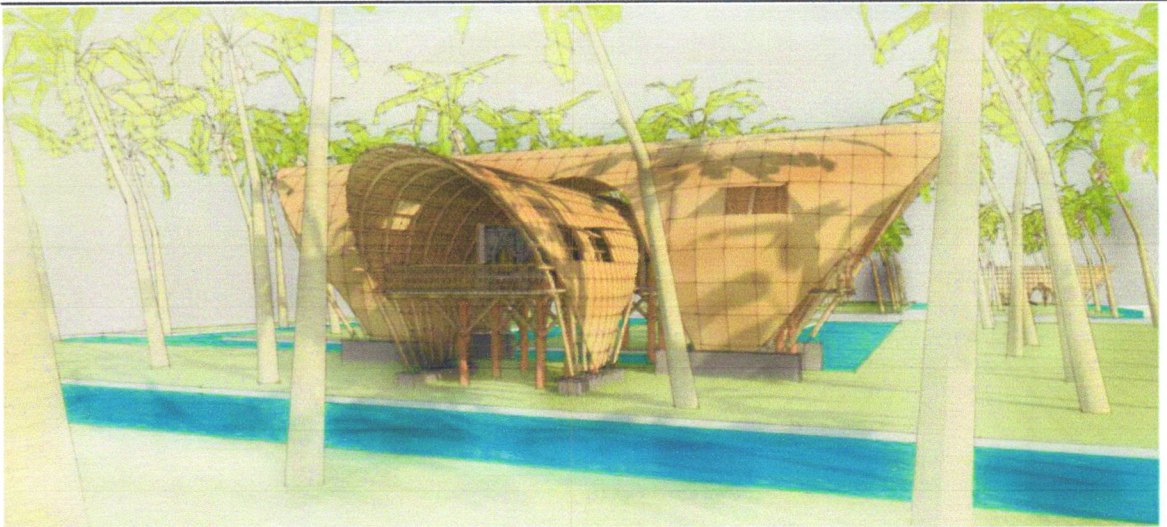
Original design

The design should not replicate traditional architecture seen in the area. It should use the knowledge to adapt and design an original architectural element.

Connection to Site

The connection to the site is different from the main building as the spaces have a different type of programmes. The villas should allow the guests to connect with outside while ensuring their safety and comfort.





Case study 2
Orange County, Kabini, India







PROGRAMME AND DEVELOPMENT

INTERACTING WITH CYCLONE

TOURIST LODGE,
NIJHUM DWIP

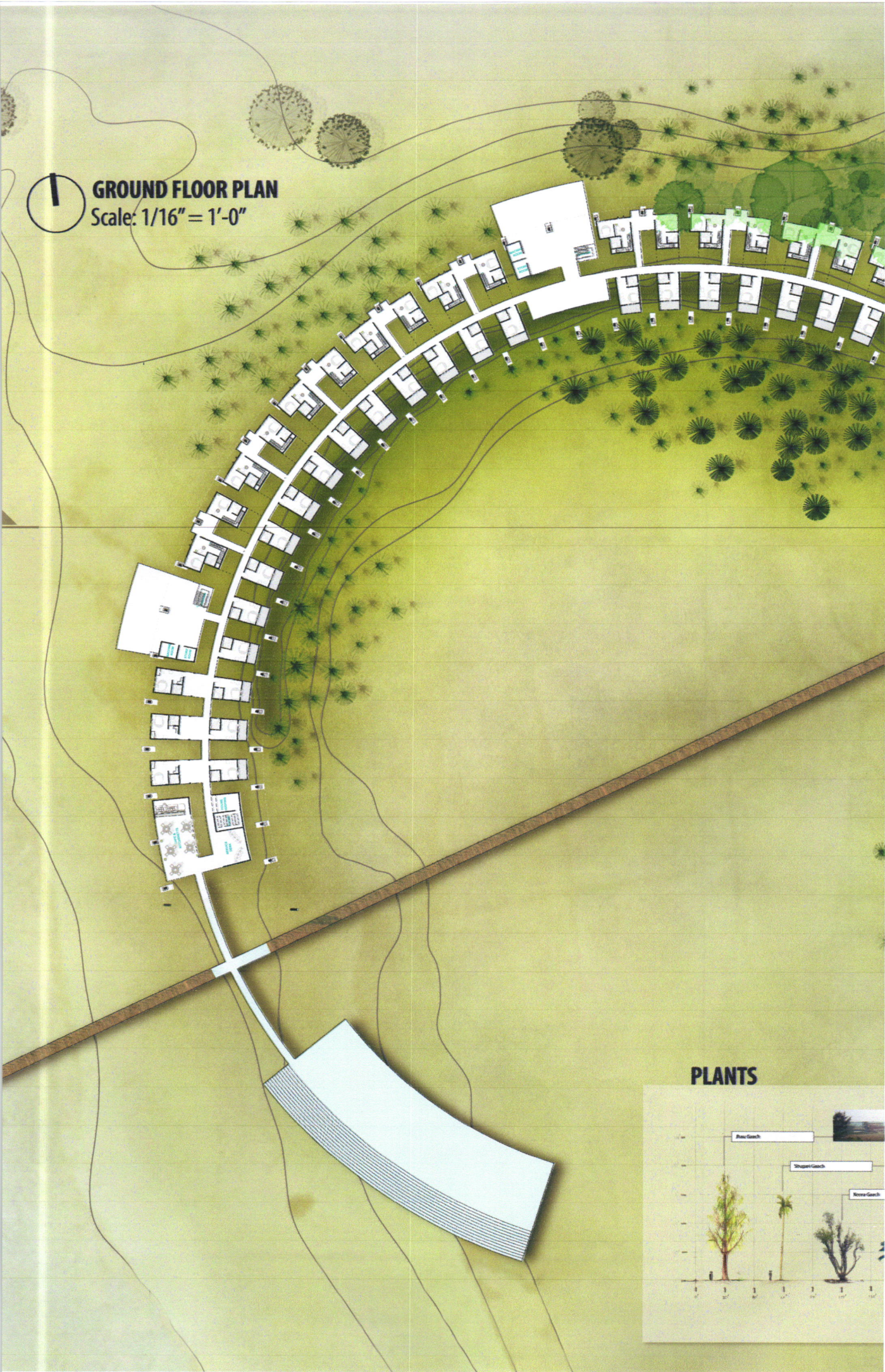
10°25.1'N 80°39'14.2'E

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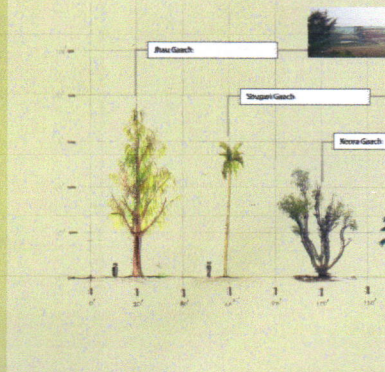
 **MASTER PLAN**
Scale: 1/64" = 1'-0"

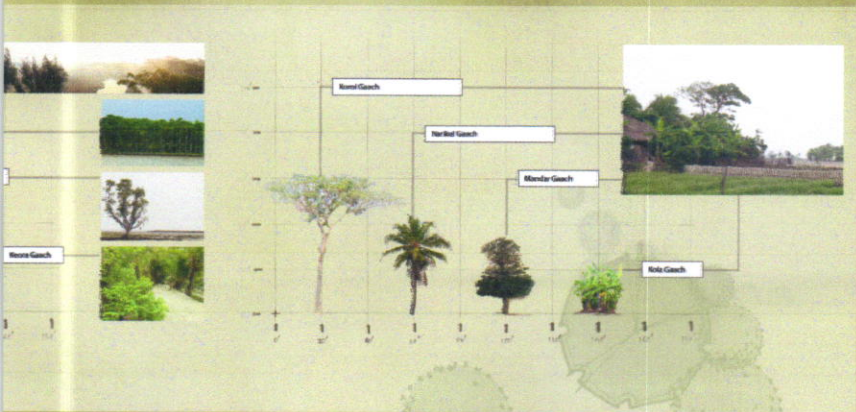


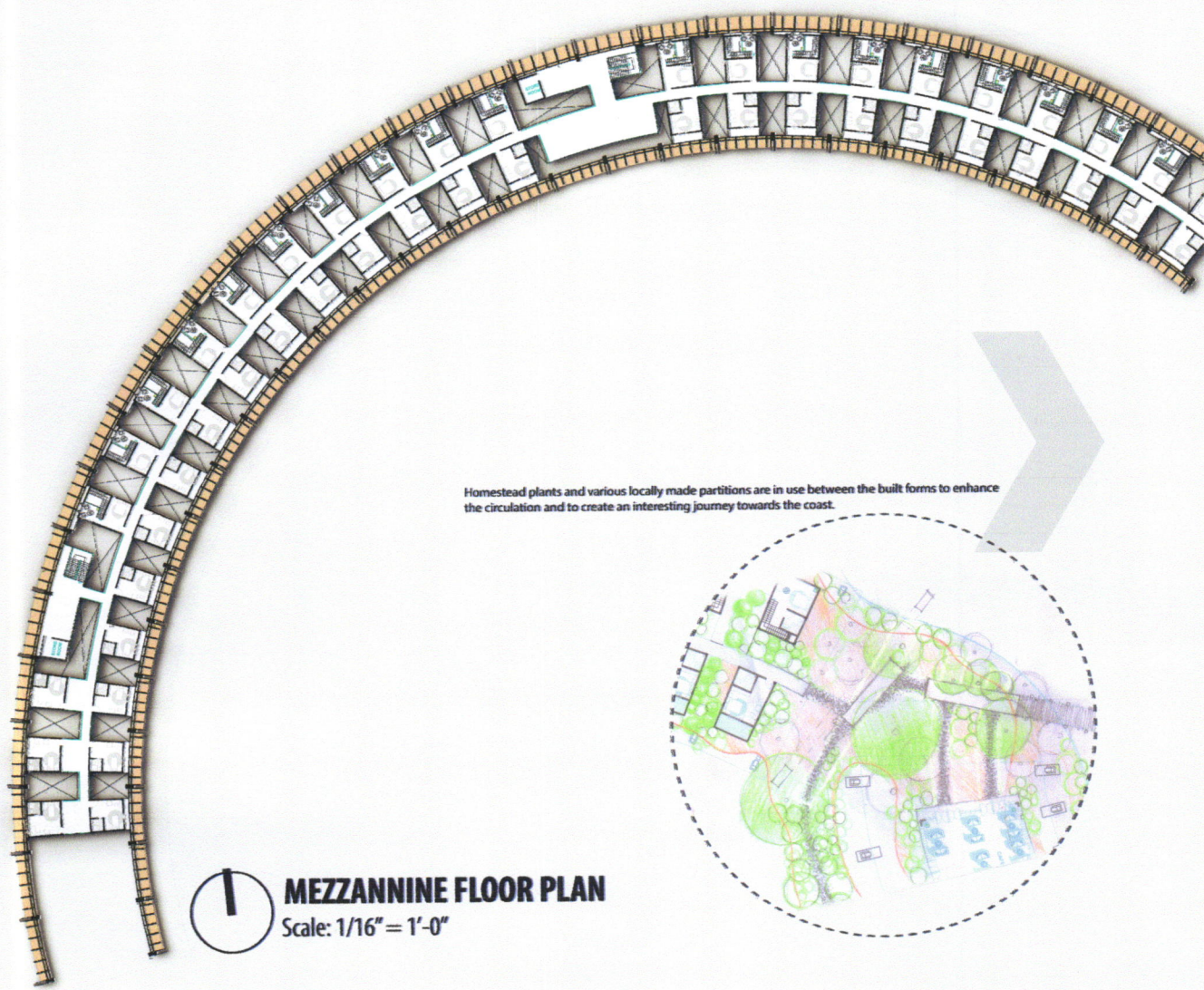
GROUND FLOOR PLAN
Scale: 1/16" = 1'-0"



PLANTS



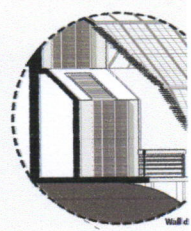


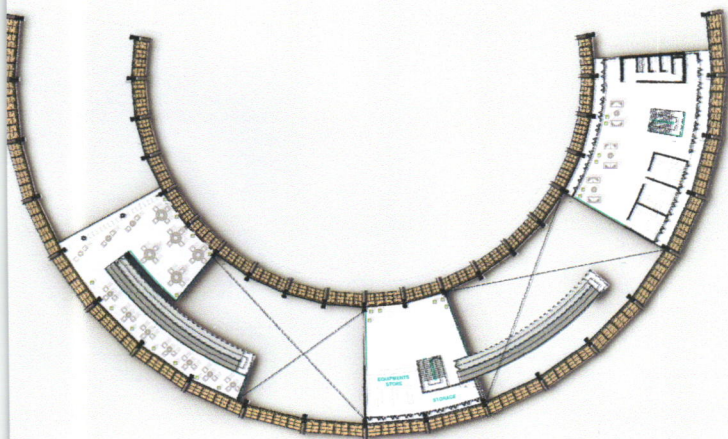
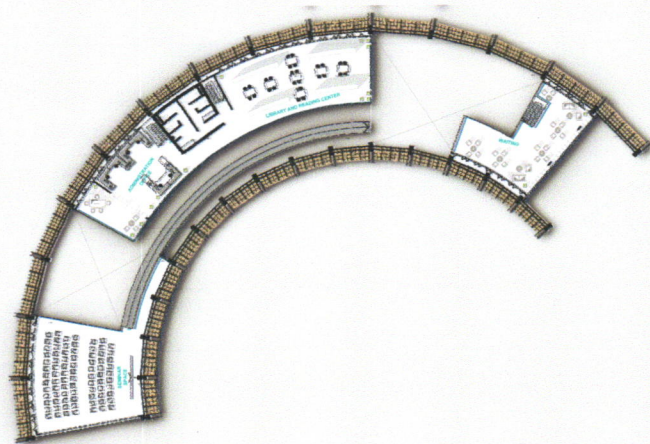


MEZZANNINE FLOOR PLAN
Scale: 1/16" = 1'-0"

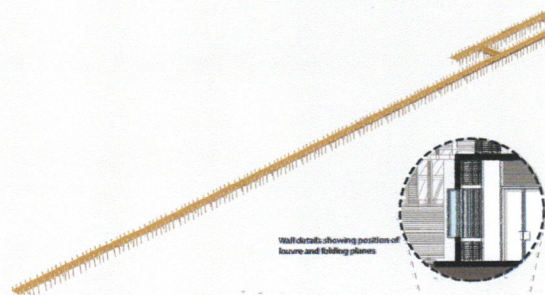
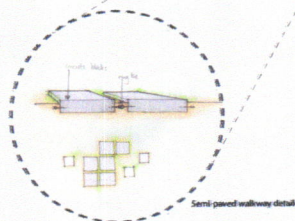
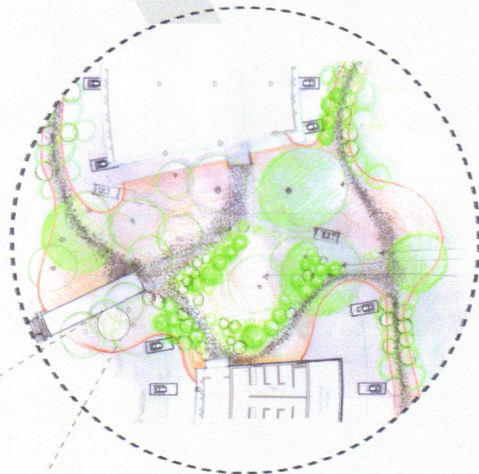


ences
he Hosts





The semi-paved circulation connects the service route to built forms and also prevents the visitors from walking into the staff accommodation areas



Wall details showing position of louvre and shading planes

Block at first floor



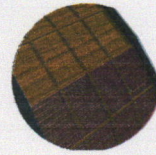


ROOF VENTILATOR



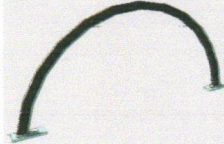
- Means of ventilation
- Chimney for warm interior air
- High velocity wind passes through due to upward air pressure generated inside
- This portion of the roof also holds the solar panels

PARTIALLY PERFORATED WOODEN SHELL



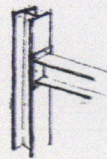
- Super roof housing all the interior spaces
- Modular wooden panels
- The primary interactive element of the built form
- Perforations of various extent to let light and air in

STEEL ARCHED RIBS



- Structure to hold the super roof
- Arched structure for superior wind resistance
- placed in a two dimensional curved organization for stability during catastrophe
- Major architectural and engineering element that also defines interior grid and spaces

VERTICAL STEEL POSTS & BEAM



- Structural framework of the functional spaces
- Resistant to catastrophes to reduce property loss/ damage
- Holds the Ground and the mezzanine floor plates
- Modular design appreciates change, extension or replacement

MEZZANINE FLOOR



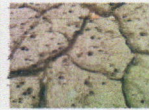
- Holds extension of dining, office, multipurpose room, library, accommodation units
- Wooden paneling as the floor plate
- Protective enclosed area

GROUND FLOOR

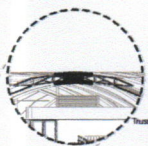


- The principal artificial floor plate for the project
- Holds all major functions including dining, services, reception & waiting, information center, accommodation, cafe and restaurant
- Holds the entire circulation of the project
- Interacts with the landscape and experiences

INFLUENCES



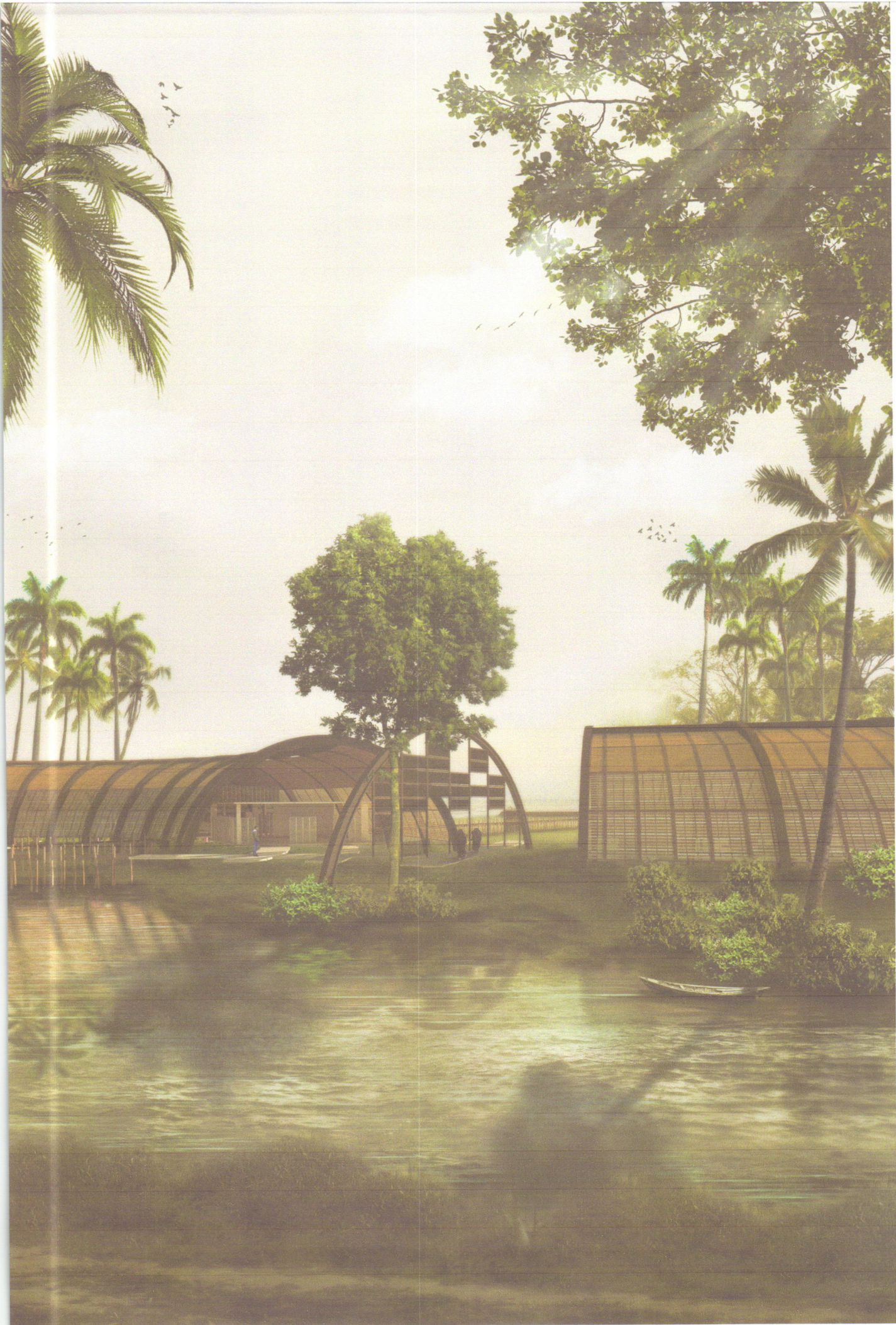
Experiences from the Landscape



cross holding up part of roof to allow ventilation



SECTION XX
Scale 1/16" = 1'-0"



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